Valley Center Municipal Water District
Urban Water Management Plan 2015 Update

June 2016

15373 Innovation Drive | Suite 390 | San Diego | California | 92128 | USA | 1.858.395.2352

louisberger.com

Errata Sheet for Minor Corrections to
Valley Center Municipal Water District
2015 Urban Water Management Plan (UWMP)

This errata sheet logs minor content errors that were identified after final adoption of the *Valley Center Municipal Water District* 2015 UWMP. DWR has determined that these corrections are minor and do not require the UWMP to be amended.

X This errata sheet has been filed with the UWMP in all locations where it is made publicly available, including the California State Library.

Name and agency of the person filing errata sheet:

Wally Grabbe, District Engineer/Deputy General Manager

Name

Valley Center Municipal Water District

Agency

#	Description of Correction	Location	Rationale	Date Error Corrected
1	Replace the second paragraph with the following: "The approach to determining the VCMWD service area population is to begin with the service area population provided by SANDAG, based on the 2010 census data, and dividing that value by the number of domestic households active at that time to arrive at an average number of residents per domestic household factor of 2.7699. The District calculates the total number of domestic households by starting with the total number of active domestic meters, then adding "additional dwelling units" to account for multi-family domestic housing, then subtracting the total non-commercial fire meters, which yields a number representative of the total number of domestic households served by the District. At any given time, VCMWD's population is estimated based on the current number of domestic households at that time multiplied by the current "residents per domestic household" factor. The District's	Page 5-2, Section 5.4, second paragraph.	To clarify method for determining the estimated population so that the reader can understand that multi-family housing units are properly accounted for.	October 12, 2016

	total domestic households for FYE 2015 was 9,168 resulting in a population of 25,394.			
2	The 10-15 year baseline average gross water use should be “45,061”, not the “30,040” calculated in the spreadsheet.	Appendix G SBX 7-7 Table 4	Corrects an error in the DWR spreadsheet that was not carried through to any other table.	October 12, 2016
3				

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LIST OF ACRONYMS AND ABBREVIATIONS

2009 Act	Water Conservation Act of 2009
AAC	All-American Canal
AB	Assembly Bill
AB 3616	Agricultural Efficient Water Management Memorandum of Understanding
ac-ft/yr	acre-feet per year
Act	Urban Water Management Planning Act
AF	Acre-Feet
Authority	San Diego County Water Authority
AWE	Alliance for Water Efficiency
BMP	Best Management Practice
CAFR	Comprehensive Annual Financial Report
CC	Coachella Canal
cfs	Cubic feet per second
CII	Commercial, Industrial, and Institutional
CIMIS	California Irrigation Management Information System
CIP	Capital Improvement Program
CRA	Colorado River Aqueduct
CUWCC	California Urban Water Conservation Council
CRA	Colorado River Aqueduct
CSP	Carryover Storage Project
CUWCC	California Urban Water Conservation Council
CVWD	Coachella Valley Water District
CWC	California Water Code
District	Valley Center Municipal Water District
DMM	Demand Management Measure
DMP	Drought Management Plan
DPLU	San Diego County Department of Planning and Land Use
DWR	California Department of Water Resources
EDU	Equivalent Dwelling Unit
EIS/EIR	Environmental Impact Statement/Environmental Impact Report
ERP	Emergency Response plan
ESP	Emergency Storage Project
ETo	Evapotranspiration
EWA	Environmental Water Account
FAP	Financial Assistance Program (SDCWA)
GPCD	Gallons Per Capita Per Day
IAWP	Interruptible Agricultural Water Program
IID	Imperial Irrigation District
IRP	Integrated Resources Plan
IRWM	Integrated Regional Water Management

LMCWRF	Lower Moosa Canyon Water Reclamation Facility
LRP	Local Resources Program (Metropolitan Water District)
M&I	Manufacturing and Industrial
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
mg/L	milligrams per liter
MAIN	Municipal and Industrial Needs
MWD	Metropolitan Water District
MWD	Municipal Water District
MWELO	Model Water Efficient Landscape Ordinance
NVWRF	North Village Water Reclamation Facility
Plan	Urban Water Management Plan
Poseidon	Poseidon Water
PWS	Public Water System
QSA	Quantification Settlement Agreement
RCD	Resource Conservation District
RFP	Request for Proposal
RUWMP	Regional Urban Water Management Plan
RWDF	Reclaimed Water Development Fund (SDCWA)
RWQCB	Regional Water Quality Control Board
RWFMP	Regional Water Facilities Master Plan
SANDAG	San Diego Association of Governments
SB	Senate Bill
SB X7-7	California Senate Bill 7 from Seventh Extraordinary Session, also known as the Water Conservation Act of 2009
SCCWRRS	Southern California Comprehensive Water Reclamation and Reuse Study
SDCWA	San Diego County Water Authority
SDRWQCB	San Diego Regional Water Quality Control Board
SRF	State Revolving Fund
SWP	State Water Project
SWRCB	State Water Resources Control Board
TDS	Total Dissolved Solids
TSAWR	Transitional Special Agricultural Water Rate
UWMP	Urban Water Management Plan
WA	San Diego County Water Authority
Water Authority	San Diego County Water Authority
WRLP	Water Reclamation Loan Program
WRF	Water Reclamation Facility
WSDM Plan	Water Surplus and Drought Management Plan
WVR WRF	Woods Valley Ranch Water Reclamation Facility
VCMWD	Valley Center Municipal Water District

Chapter 1
INTRODUCTION AND OVERVIEW

1.1. Background and Purpose

Water planning has been an essential function of water suppliers for some time, but has become even more critical as California grapples with ongoing droughts as well as anticipated impacts of long-term climate changes. Water planning is vital at the local level as only a local supplier has the knowledge of the area's unique circumstances, can tailor the planning to local conditions, and can also foster participation within the community.

To ensure that local water agencies devote an adequate effort to water planning, the California legislature adopted Assembly Bill 797, the Urban Water Management Planning (UWMP) Act, during their 1983–1984 regular session, and it became part of the California Water Code (CWC). The UWMP Act has since been modified over the years in response to water shortages, droughts, and other factors occurring within the State. Subsequent assembly bills have amended the Act, particularly the significant SB X7-7 update in November 2009, also known as the *Water Conservation Act of 2009*.

This Valley Center Municipal Water District Urban Water Management Plan 2015 Update is the formal document to satisfy the year 2015 requirements of the UWMP Act and also incorporates the requirements of the Water Conservation Act of 2009. This 2015 Plan describes the availability of water and discusses water use, reclamation, and water conservation activities. The Plan concludes that the water supplies available to the Valley Center Municipal Water District's (District's) customers are adequate over the next 20-year planning period. Although submitted in 2016, in compliance with the required submittal deadline of July 1, 2016, the Plan is referred to as the 2015 Plan because the UWMP Act requires water agencies to prepare an UWMP every five years. This Plan maintains consistency with the five-year submittal cycle.

1.2. Urban Water Management Planning and the California Water Code

The UWMP Act became part of the California Water Code with the passage of Assembly Bill 797 during the 1983–1984 regular session of the California legislature. Subsequent assembly bills have amended the Act, particularly the significant SB X7-7 update, also known as the Water Conservation Act of 2009, which partially resulted from the governor's call for a statewide 20 percent reduction in urban water use by the year 2020. This 2009 Act required agencies to establish water use targets for 2015 and 2020 that would result in statewide savings of 20 percent by the year 2020.

The Urban Water Management Planning Act requires every urban water supplier providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually to adopt and submit an Urban Water Management Plan every five years to the California Department of Water Resources (DWR). According to DWR, the UWMP Act states that these urban water suppliers should make every effort to assure that the appropriate level of reliability in its water service is sufficient to meet the needs of its various categories of customers during normal, dry, and multiple dry years. The UWMP Act describes the contents of the Plan as well as how urban water suppliers should adopt and implement the Plan.

This portion of the California Water Code (CWC) requires urban water suppliers to report, describe, and evaluate the following:

- Water deliveries and uses;
- Water supply sources;
- Efficient water uses;
- Demand management measures; and
- Water shortage contingency planning.

In addition, the passage of SB X7-7 (hereafter referred to as the Water Conservation Act of 2009 or the 2009 Act) requires urban water suppliers to report their baseline per capita water use and establish a per capita water use target. As such, the following will be addressed within this 2015 UWMP Update:

- Base Daily per Capita Water Use
- 2015 Interim Urban Water Use Target
- 2020 Interim Urban Water Use Target
- Compliance Daily per Capita Water Use for 2015

In addition, changes to the CWC since 2010 require that descriptions of Demand Management Measures implemented by retail agencies be described in the 2015 UWMP Update, including the following, which will be discussed in Chapter 9 of this document:

- Water waste prevention ordinances
- Metering
- Conservation pricing
- Public education and outreach
- Programs to assess and manage distribution system real loss

- Water conservation program coordination and staffing support
- Other demand management measures with a significant impact, if implemented

Additional changes since 2010 include the requirement that the 2015 UWMP be submitted electronically by July 1, 2016, and that standardized forms be used to present the required information.

Per the new requirements: Chapter 4 should additionally cover new requirements for water loss and estimating future water savings; in Chapter 5, it is required that targets for decreasing daily per capita water use be set and methods of tracking progress be established; and Chapter 8 should, where applicable, consider the new definition of water features; and there is guidance for the voluntary reporting of energy intensity.

And, it should be noted that changes to California law also require that, beginning in 2016, water suppliers must comply with the Water Conservation Act of 2009 in order to be eligible for State water grants or loans.

1.3. Urban Water Management Plan in Relation to Other Planning Efforts

Several water management tools have been used by the District to maximize local water resources. Programs in which the District participates to maximize water resources are described as follows:

- Recycled Water Master Plan – The District is preparing a Recycled Water Master Plan for its Lower Moosa Canyon Service Area. It is the District's intent to couple this with the Recycled Water Master Plan of other District Service Areas, and eventually with the Water Master Plan, in order to create an Integrated Water Master Plan.
- Emergency Storage Project – This is a regional effort led by the San Diego County Water Authority. The District has participated in developing alternative supply routes using District facilities that would reduce the overall costs for the Region while addressing distribution needs during emergency conditions.
- California Urban Water Conservation Council (CUWCC) – The District is a participant in the CUWCC. The CUWCC was created to increase efficient water use statewide through partnerships among urban water agencies, public interest organizations, and private entities. The CUWCC's goal is to integrate urban water conservation Best Management Practices (BMPs) into the planning and management of California's water resources. A historic Memorandum of Understanding (MOU) was signed by nearly 100 urban water agencies and environmental groups in December, 1991. Since then the CUWCC has grown to 389 members, including the Valley Center Municipal Water District. Those signing the MOU pledge to develop and implement fourteen comprehensive conservation BMPs.

- Agricultural Irrigation Evaluation Program – The District participates in this program through the Mission Resource Conservation District (RCD). The RCD mobilizes staff to add pressure regulators to balance pressure throughout the system. Grove irrigation systems are also inspected.
- University of California, Davis Extension Program – The District is participating in the Pulse Irrigation Research Sensor Program, which uses pulse sensors to determine water needs based on soil moisture content.

The benefits of the programs described above and the documents developed as a result of these programs are water management tools that the District uses to maximize their available local water resources.

1.4. Urban Water Management Plan Organization

Valley Center MWD generally followed DWR's recommended organizational outline in the preparation of its 2015 UWMP. Below is a summary of the information included in the various chapters of the VCMWD 2015 UWMP:

- Chapter 1 – Introduction and Overview, provides background information on the UWMP process and an overview of information covered throughout the remaining chapters.
- Chapter 2 – Plan Preparation, discusses development of the District's local UWMP as well as regional planning and coordination/outreach efforts, key elements in developing a useful and accurate UWMP.
- Chapter 3 – System Description, provides a description of the water system, the service area and climate, and the organizational structure and history.
- Chapter 4 – System Water Use, describes and quantifies current and projected water uses within the District's service area.
- Chapter 5 – Baselines and Targets, describes the District's baseline and target water consumption goals, including the 2015 and 2020 water use targets.
- Chapter 6 – System Supplies, describes and quantifies the current and projected sources of water supplies, including potential recycled water uses and supply availability.
- Chapter 7 – Water Supply Reliability, describes the reliability of the water supply and projects the reliability out 20 years for normal, dry, and multiple dry year scenarios.
- Chapter 8 – Water Shortage Contingency Planning, presents the District's staged water shortage contingency plan, including a catastrophic supply interruption.

- Chapter 9 – Demand Management Measures, describes the District's efforts to promote conservation and reduce water demand, including discussions of specific demand management measures.
- Chapter 10 – Plan Adoption, Submittal, and Implementation, discusses the steps taken to prepare the District's 2015 UWMP, hold a public hearing, adopt and submit the 2015 UWMP, and implementation of the adopted Plan.

1.5. UWMPs and Grant or Loan Eligibility

It has been noted that in order for an urban water supplier to be eligible for any water management grant or loan administered by DWR, the agency must have a current UWMP on file that addresses the requirements of the CWC. In addition, a current UWMP must also be maintained by the water supplier throughout the term of any grant or loan administered by DWR.

Chapter 2
PLAN PREPARATION

2.1. Basis for Preparing a Plan

The Urban Water Management (UWMP) Act became part of the California Water Code with the passage of Assembly Bill 797 during the 1983–1984 regular session of the California legislature, requiring every urban water supplier to adopt and submit an Urban Water Management Plan to the California Department of Water Resources (DWR) every five years. Subsequent assembly bills have amended the Act, particularly the significant SB X7-7 update, also known as the Water Conservation Act of 2009, which added the requirement for agencies to establish water use targets for 2015 and 2020 that would result in statewide savings of 20 percent by the year 2020.

The UWMP Act defines an urban water supplier as an agency that provides water for more than 3,000 customers or supplies more than 3,000 acre-feet of water annually. By this definition, Valley Center Municipal Water District is an urban water supplier operating a Public Water System (PWS) and therefore is required to update and adopt a 2015 UWMP for submittal to the California Department of Water Resources (DWR). As indicated in Table 2-1, the District's Public Water System Number is 3710026. The Valley Center Municipal Water District has updated its Urban Water Management Plan to satisfy the year 2015 requirements of the UWMP Act, including addressing the requirements of the Water Conservation Act of 2009. This 2015 Plan describes the availability of water for normal, dry, and multiple dry year scenarios, and also discusses water use, reclamation, and water conservation activities. The Plan concludes that the water supplies available to the Valley Center Municipal Water District's customers are adequate over the next 20-year planning period.

2.2. Regional Planning

As a member agency of the San Diego County Water Authority (Authority), the Valley Center Municipal Water District is regularly apprised of the Authority's regional planning processes, and is supportive of the Authority's efforts in this regard.

2.3. Individual or Regional Planning and Compliance

Valley Center Municipal Water District's 2015 UWMP will be based solely on the District's service area and is shown as an Individual UWMP in Table 2-2. However, the District will coordinate with appropriate regional agencies and constituents, including providing appropriate notifications as required.

2.4. Fiscal or Calendar Year and Units of Measure

The Valley Center Municipal Water District 2015 Urban Water Management Plan reports information on a fiscal year basis. The District will use acre-feet (AF) increments to report water volume throughout the Plan. Refer to Table 2-3 for additional information.

2.5. Coordination and Outreach

The UWMP Act requires the District, to the extent practicable, to 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,. While preparing the 2015 Plan, the District coordinated its efforts with appropriate agencies to ensure that data and issues were presented accurately. This included coordinating with the San Diego County Water Authority (SDCWA or Authority) regarding projected imported water deliveries, and informing the Authority of the District's projected water demands in five-year increments for 20 years or as far as data is available. As noted in Table 2-4, the District's 2015 Plan was sent to the District's wholesale water supplier, the San Diego County Water Authority (SDCWA), for review and comment. Several other interested agencies were also notified including: the San Diego County Department of Planning and Land Use (DPLU), San Diego Regional Water Quality Control Board, City of Escondido, Rincon Del Diablo Municipal Water District, Vallecitos Water District, Yuima Municipal Water District, and Rainbow Municipal Water District. These agencies were requested to review and provide comments on the document. Table 10-1 in Chapter 10 of this Plan provides a summary of Plan coordination efforts with the Cities and the County.

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
3710026	Valley Center Municipal Water District	10,761	24,511
	TOTAL	10,761	24,511

NOTES: Includes Active and Inactive Meters.
Data presented are for fiscal year ending June 30th of the year shown (6-30-2015).

Table 2-2: Plan Identification (Select One)		
☑	Individual UWMP	
☐	Regional UWMP (RUWMP) *(checking this triggers the next line to appear)*	
	Select One:	
	☐	RUWMP includes a Regional Alliance
	☐	RUWMP does not include a Regional Alliance
NOTES:		

Table 2-3: Agency Identification	
Type of Agency (select one or both)	
☐	Agency is a wholesaler
☑	Agency is a retailer
Fiscal or Calendar Year (select one)	
☐	UWMP Tables Are in Calendar Years
☑	UWMP Tables Are in Fiscal Years
If Using Fiscal Years Provide Month and Day that the Fiscal Year Begins (dd/mm)	
07/01	
Units of Measure Used in UWMP (select from Drop down)	
Unit	AF
NOTES:	

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 *(Add additional rows as needed)*
San Diego County Water Authority
NOTES:

Chapter 3
SYSTEM DESCRIPTION

This chapter describes the District's system. It contains a description of the service area and its climate. This section also describes the water supply facilities, including the booster pumping stations, reservoirs, and piping system.

3.1. General Description

The unincorporated community of Valley Center covers an area of approximately 100 square miles of which approximately 72 percent receives water service from the District. Conversely, approximately 28 percent of the area is not served by the District. The District understands that the population from this unserved area is not to be included when calculating the population for purposes of SB X7-7 compliance.

Valley Center M.W.D. is a special district, authorized by the State Legislature under the Municipal Water District Act of 1911. It is governed by a five-member Board of Directors selected by voters in their respective divisions to serve four-year terms. The District has a General Manager, Chief Engineer/Deputy General Manager, Director of Operations and Facilities, Director of Finance, and Director of Information Technology. Further detailed information on the District is available on the District's website at www.vcmwd.org.

The District imports nearly 100 percent of its water from the San Diego County Water Authority. The District currently ranks as the fourth largest retailer of imported water from SDCWA behind the City of San Diego, Helix Water District, and Otay Water District. As of June 30, 2015, the District serves 10,172 active water meters involving dwelling units, including 1,004 residential fire protection meters, for a net 9,168 active water service accounts involving dwelling units. The District is also the largest retail purchaser of agricultural water within SDCWA's service area.

Commercial agriculture customers are certified through the "Interim Agricultural Water Program (IAWP) Supply Reduction Implementation Plan. The last recertification process for the commercial agriculture customers was in 2012. Another is scheduled after the end of this drought. Per the 2012 recertification, 10,608 acres are reported as under production.

Per SANDAG, agricultural use is predicted to decline while being offset by significant increases in land utilized for Low Density Single Family housing as well as typical Single Family housing. Uncertainties presented by the drought can significantly impact any percentage estimates of future agricultural use. Present District boundaries, which define the study area for this Plan, are shown on Figures 3-1 and 3-2 of this document.

3.2. Service Area Boundary Map(s)

A vicinity map and a location map of the Valley Center Municipal Water District follow this page as Figures 3-1 and 3-2.

Service area changes since the beginning of the baseline through 2015 including recent annexations are presented in Figure 3-3. Figure 3-4 illustrates the Woods Valley Ranch recycled water distribution system, while Figure 3-5 show the Woods Valley Ranch recycled water service area.

Figure 3-6 shows the District's water distribution system and wastewater collection systems, and Figure 3-7 shows the VCMWD service area.

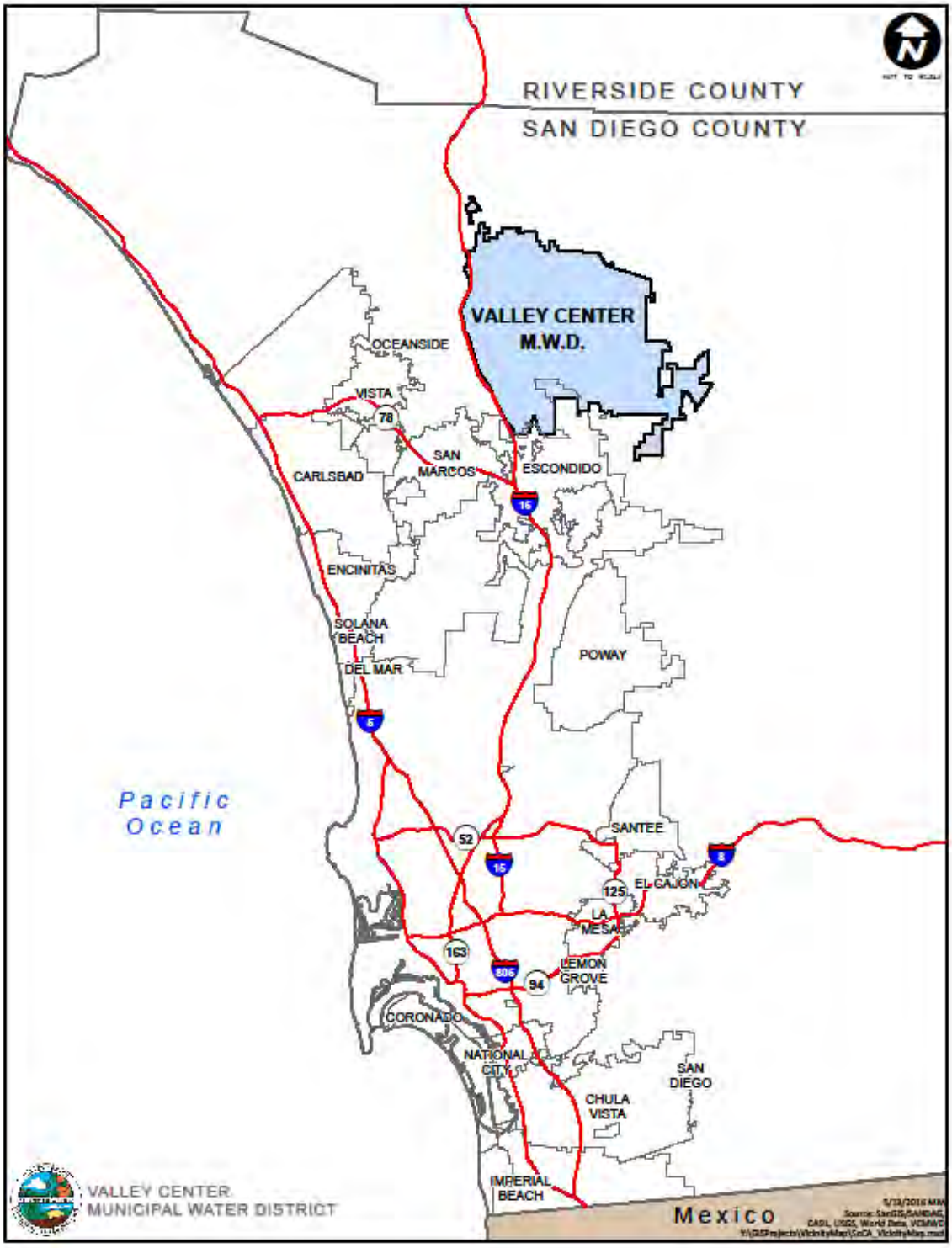

Figure 3-1

VICINITY MAP

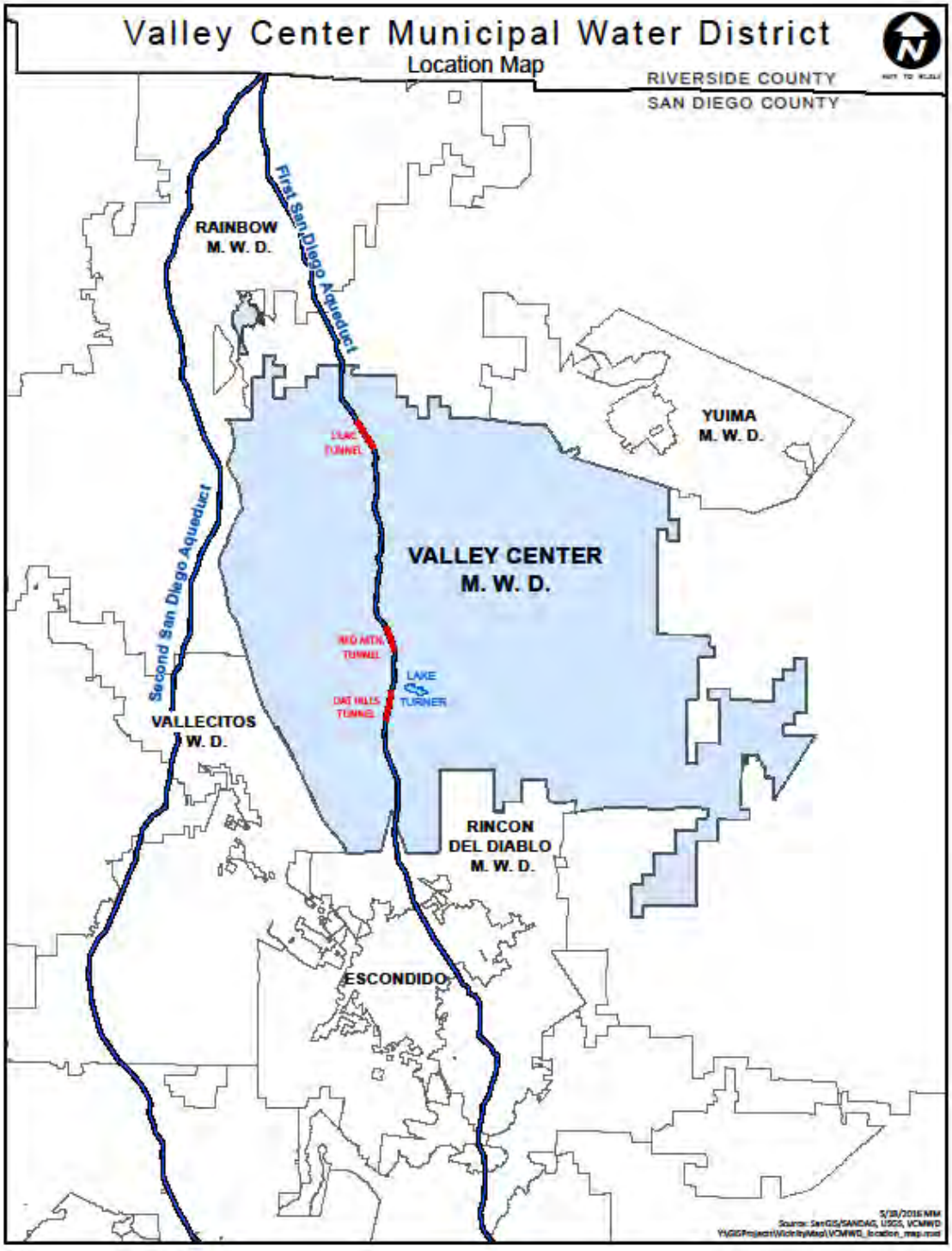

Figure 3-2

LOCATION MAP

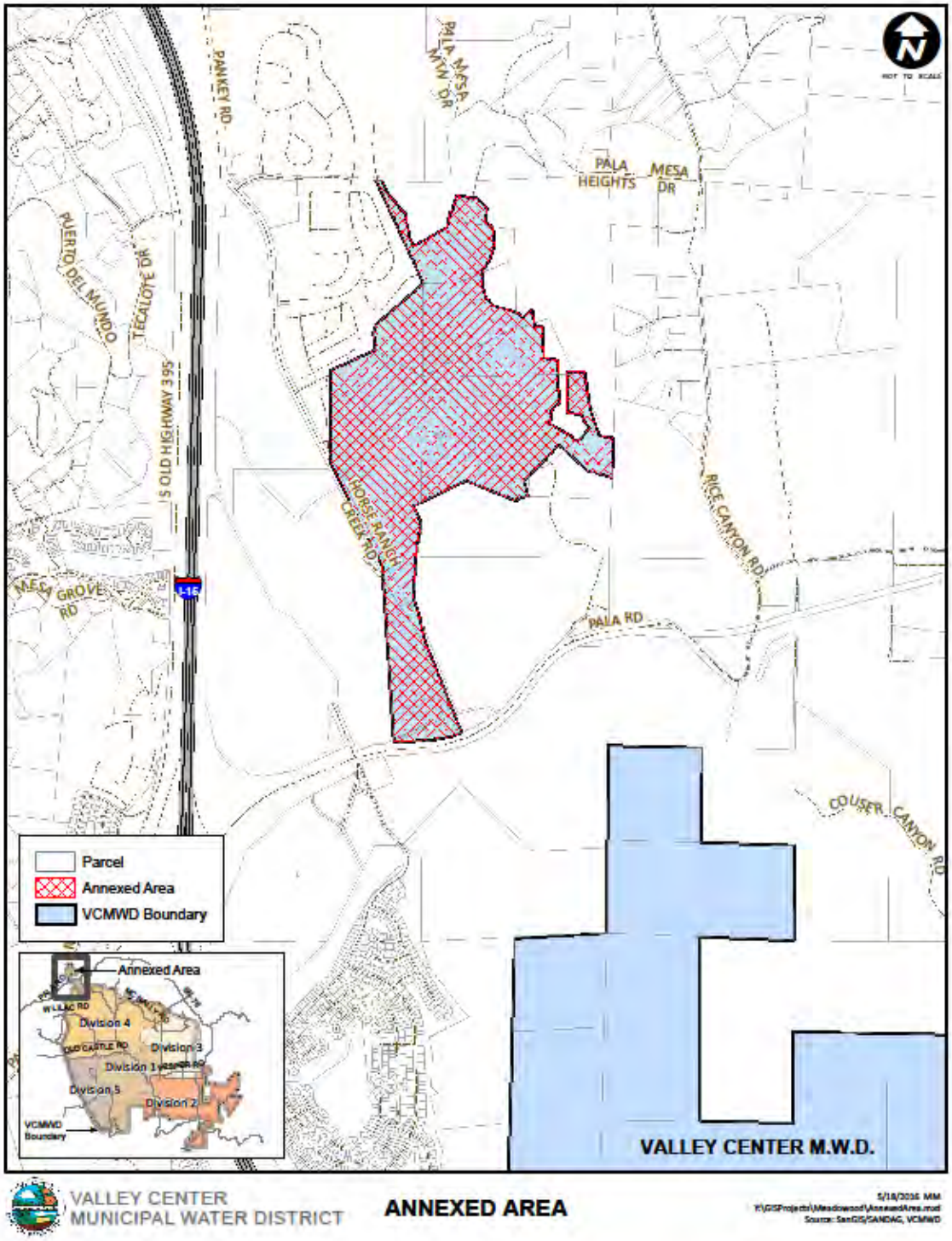

Figure 3-3

RECENT ANNEXATIONS TO VCMWD

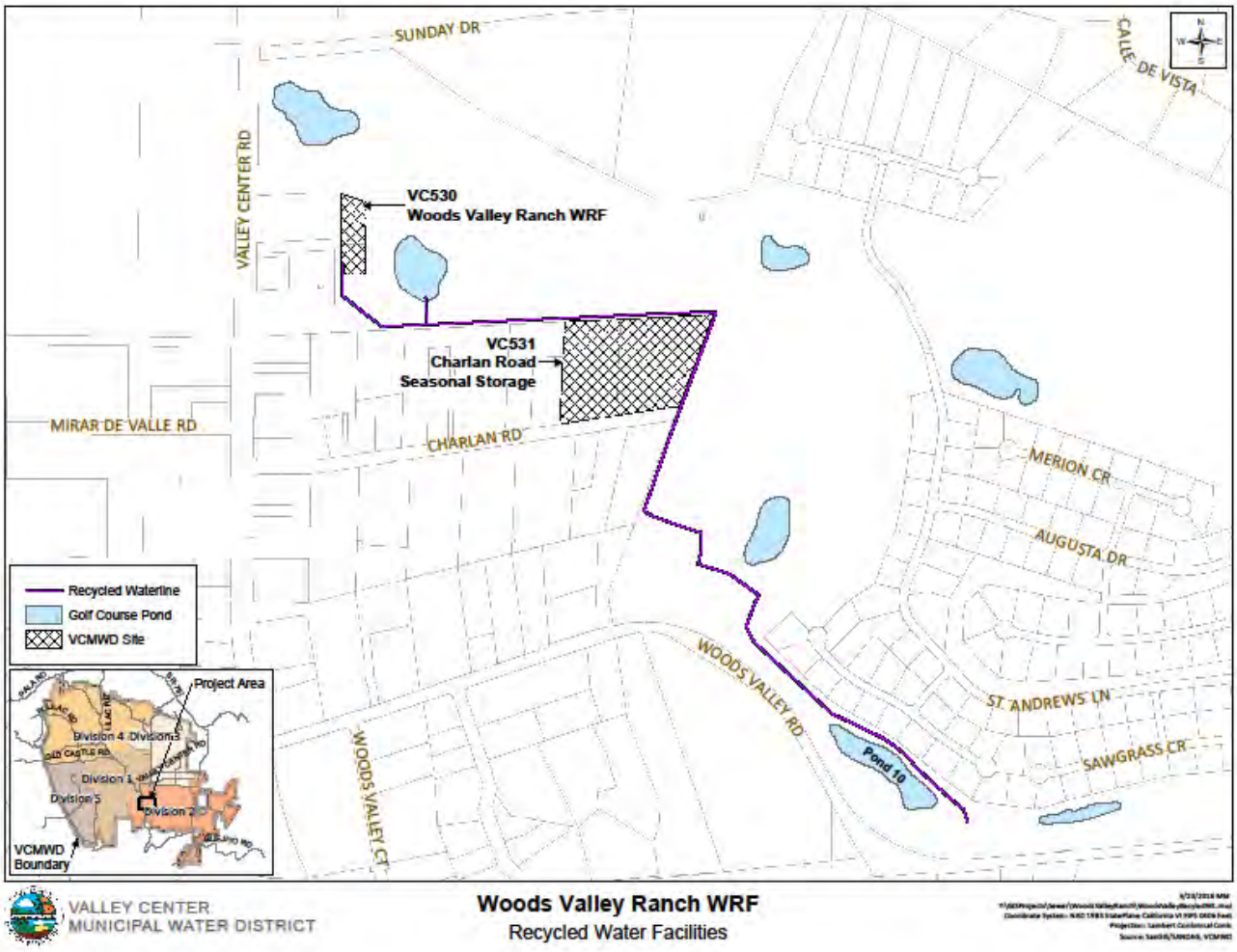

Figure 3-4

WOODS VALLEY RANCH
RECYCLED WATER DISTRIBUTION SYSTEM

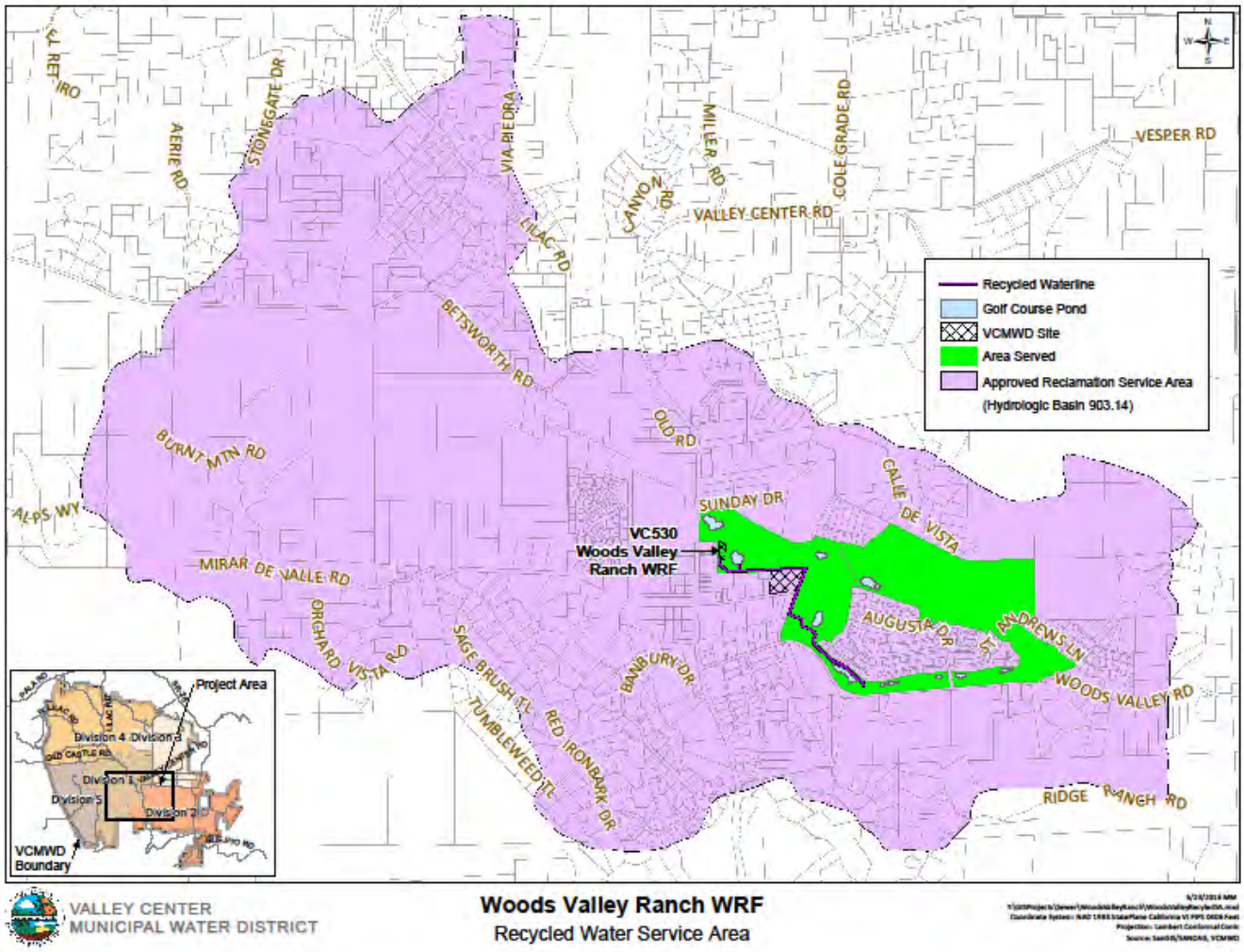

Figure 3-5

WOODS VALLEY RANCH
RECYCLED WATER SERVICE AREA

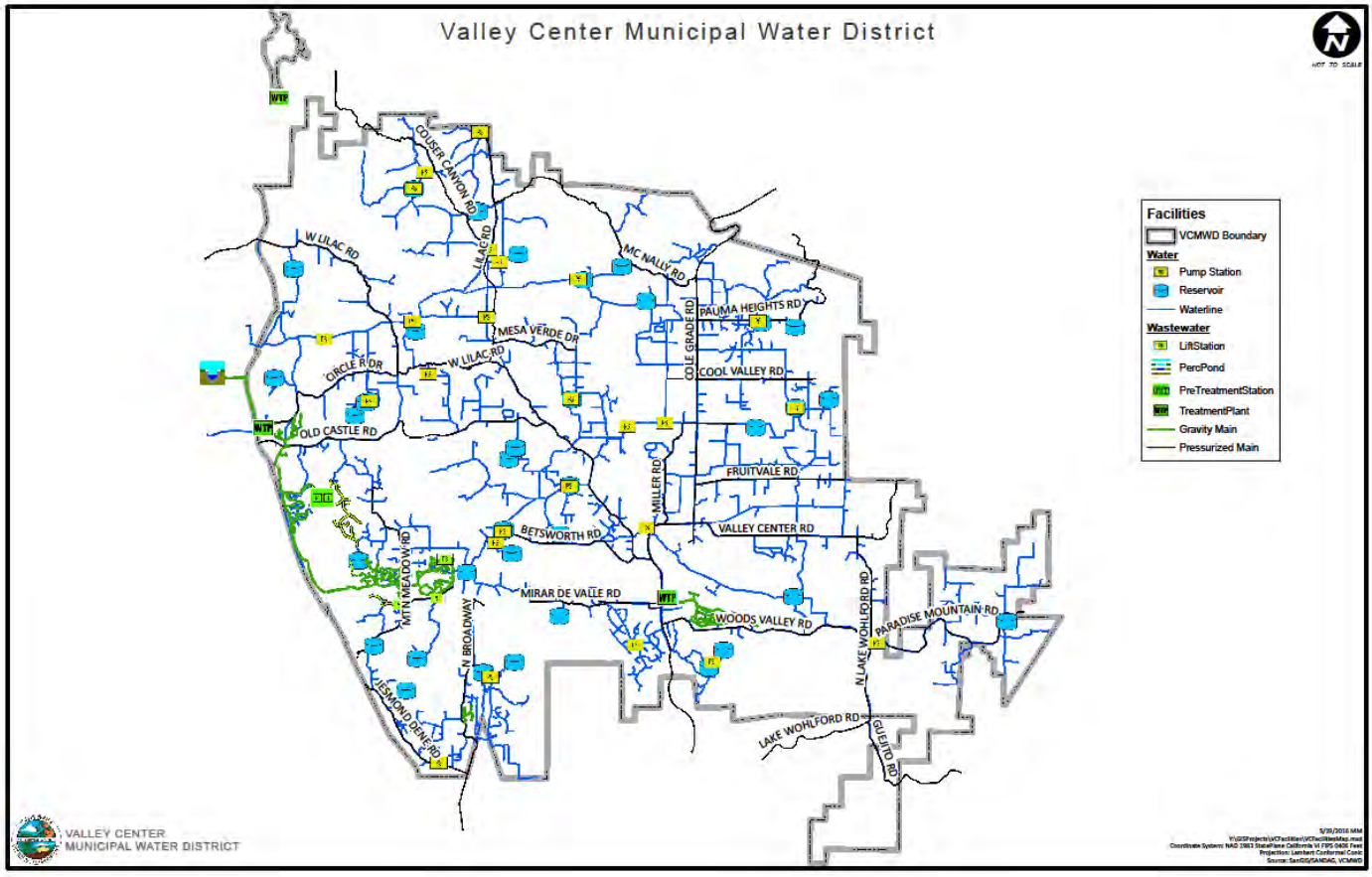

Figure 3-6

VCMWD FACILITIES

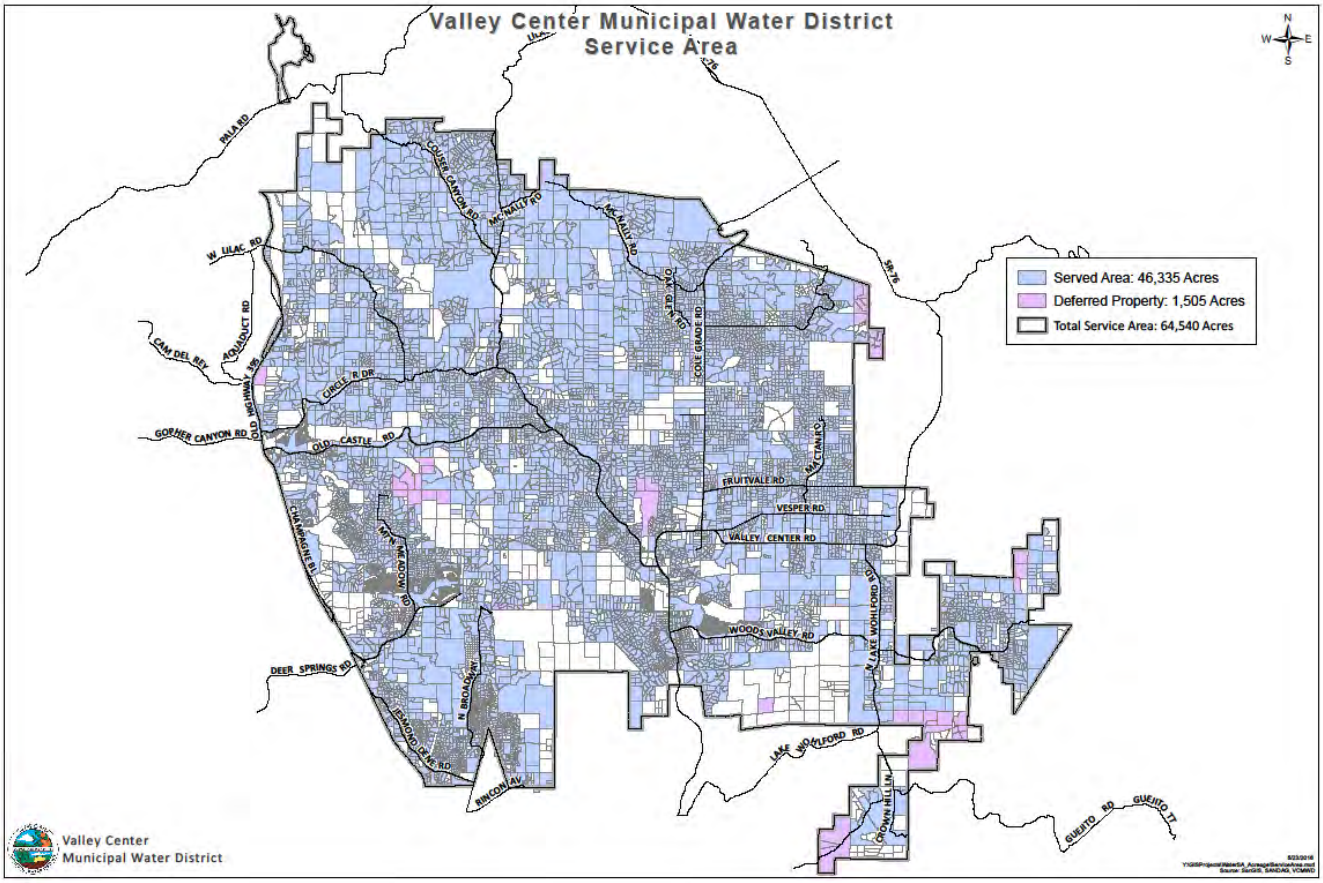

Figure 3-7

VCMWD Service Area

3.3. Service Area Climate

Valley Center is a semi-arid area characterized by hot dry summers and mild winters, although temperatures do occasionally fall below freezing. A typical summer month's high temperatures average from the low to mid 90 degrees Fahrenheit range. Over the last 15 years, rainfall has averaged around 8.6 inches per year. To emphasize the impact of the drought, in the previous Urban Water Management Plan, the 20 year average was approximately 12 inches per year. Table 3-2 presents the variation of the annual temperature, precipitation, and evapotranspiration (ETo) over the last 11 years as obtained from the California Irrigation Management Information System (CIMIS) website.

3.4. Service Area Population and Demographics

In order to be able to provide for the area's future water demands and water use characteristics, it is important to have reasonable estimates of future population totals and future regional trends. To develop these projections, historic population and water use information was analyzed. Information from the San Diego Association of Governments (SANDAG) provided current estimates and forecasts of population, housing, employment, land use, and other planning data. The District's overall projections are based on information provided by SDCWA. With this information, the District has developed reasonable estimates of future water demands.

Water use in the San Diego region is closely linked to the local economy, population growth, and climatic factors. Southern California experienced dramatic economic growth during the 1970s and 1980s, and the resulting influx of new population produced increased long-term water demands. In the 1990s, however, the rate of economic growth declined due to the severity and duration of the recession which in California was led by declines in manufacturing, particularly the defense and aerospace industries. However, due to the economic turndown, developer projects and new housing starts slowed, and the population growth previously experienced declined.

In 2010, the projected population for the VCMWD area for year 2020 was 29,041. As indicated in Table 3-1, the current population projection for year 2020 is now 30,571 (based on SANDAG Series 13 Growth Forecast adopted in October 2013), an increase of 1,530 or 5.3 percent over 2010 projections.

According to the June 30, 2015 Comprehensive Annual Financial Report (CAFR), the estimated District population was 25,394 in 2015 and is currently projected to grow to 35,300 by 2030. Table 3-1 at the end of this chapter provides additional projected population information.

In the SANDAG 2050 Regional Growth Forecast, SANDAG is projecting that most of the anticipated growth within the District will be in occupied housing units, which is expected to increase by 96 percent over 2008 levels by 2050. Occupied single family housing units were established at 6,529 units in 2008 and are projected to be 13,285 units in the year 2050.

SANDAG predicts an increase in land utilized for single family housing from 941 acres in 2012 to 1,526 acres in 2050, a 62 percent increase over this period. In addition, there were 21,255 acres of vacant developable land available in 2008. There will only be 1,437 acres available in 2050—a decrease of 93 percent. These predictions reflect the expected transition from a predominantly agricultural area to that of large single-family homes and mixed agricultural/ residential usage.

3.4.1. Other Demographic factors

Other demographic factors that affect water use within the District include the agricultural activities which comprise approximately 70% of the water use within the District. Residential use accounts for approximately 22% of the water use, with many low density single family homes situated on large lots of one acre or more. Commercial entities use about 8% of the District's water.

As stated earlier, approximately 10,608 acres are being used for agricultural purposes at this time. Agricultural use is predicted to decline, gradually converting to Low Density Single Family housing and typical Single Family housing uses, according to the San Diego Association of Governments (SANDAG).

CHAPTER 3 TABLES

Table 3-1 Retail: Population - Current and Projected						
Population Served	2015	2020	2025	2030	2035	2040*(opt)*
	25,394	30,571	34,312	35,300	35,514	36,361
NOTES: SANDAG Series 13 Growth Forecast Variables, adopted October 15, 2013						

Table 3-2. Precipitation and Temperature Records, 2005-2015			
Year	Average Temperature (F) [1]	Total Rainfall (in.)[1]	Standard Yearly Average ETo (in.)[1]
2015	62.1	5.6	51.80
2014	62.9	6.3	55.70
2013	60.4	3.4	54.18
2012	60.5	8.6	53.89
2011	59.5	8.9	55.43
2010	60.1	14.6	55.49
2009	61.0	5.9	52.43
2008	61.8	3.0	56.15
2007	60.3	8	56.6
2006	60.8	8.5	54.33
2005	60.7	16.0	52.52

[1] *Based on the Escondido, California Station, CIMIS*

Chapter 4
SYSTEM WATER USE

4.1. Recycled vs. Potable and Raw Water Demand

This chapter addresses potable water demand. The District had no raw water demand for the year 2015.

4.2. Water Uses by Sector

Records of historical water production obtained from the District serve as the basis for developing the existing water demands by sector for the District. Water production is the volume of water measured at the source, which includes all water delivered to residential, commercial, and public authority customers, as well as unaccounted-for water.

The District has identified that the community is in transition from a predominantly agricultural region to a combined agricultural and residential community, with the potential for greater residential water needs in the future.

4.2.1. Demand Sectors Listed in Water Code

The projected water usages by sector were developed based on existing District records using SDCWA water projections coupled with SANDAG land use projections for refinement. Projections for certain sectors such as agriculture and conservation were taken directly from SDCWA projections, which were a breakdown provided separately to their member agencies from the information in section 2.4.5 of their 2015 UWMP. Other sectors were estimated from WA projections of M&I demand apportioned through the use of SANDAG land use projections tied to District historical water use records.

4.2.1.1. Single Family Residential

In 2015, residential water use accounted for approximately 20 percent of water sales. By 2020, this water sector is expected to grow to over 25% of water sales. Refer to Tables 4-1 and 4-2 for additional information.

4.2.1.2. Multi-Family

In 2015, multi-family water use accounted for approximately 2 percent of water sales. Using the SANDAG land use information provided, no discernable growth is projected. Refer to Tables 4-1 and 4-2 for additional information.

4.2.1.3. Commercial

Commercial water use in 2015 increased from prior years but at this time is not projected to significantly increase. Refer to Tables 4-1 and 4-2 for additional information.

4.2.1.4. Industrial

Not applicable.

4.2.1.5. Institutional (and Governmental)

Institutional water use is minimal and accounted for approximately 0.6 percent of 2015 water sales and is predicted to stay almost stagnant.

4.2.1.6. Landscape

Not applicable.

4.2.1.7. Sales to Other Agencies

Not applicable.

4.2.1.8. Conjunctive Use

Not applicable.

4.2.1.9. Groundwater Recharge

Not applicable.

4.2.1.10. Saline Water Intrusion Barriers

Not applicable.

4.2.1.11. Agricultural

In 2015, agriculture water use accounted for 70 percent of water sales. By 2040, it could decrease to under 55%. These values include projected conservation savings developed by SDCWA of 995, 1307, 1458, 1591 and 1741 AF for years 2020 through 2040, respectively.

4.2.1.12. Distribution System Losses

The 2015 system losses are presented in Table 4-4, and reflected in the AWWA Free Water Audit Software version 5.0. The District conducts annual water loss calculations and uses these calculations to monitor a number of aspects of their system. A more in-depth discussion of system losses is presented in Section 4.3, Distribution System Water Losses.

4.2.2. Demand Sectors in Addition to Those Listed in Water Code

4.2.2.1. Exchanges

Not applicable.

4.2.2.2. Surface Water Augmentation

Not applicable.

4.2.2.3. Transfers

Not applicable.

4.2.2.4. Wetlands or Wildlife Habitat

Not applicable.

4.2.2.5. Other

Two categories of "Other" were used to convey the following information: 1) "mixed use and commercial" which is predicted to grow by 5 times; and 2) "minor" uses which will remain negligible. Another category was going to be shown in Table 4-2 "Adjustments for Conservation" but because the on-line version of this table would not accept negative numbers, it has been included with the Ag values and itemized in paragraph 4.2.1.11. This category shows continued gains in the future.

4.3. Distribution System Water Losses

The AWWA Free Water Audit Software version 5.0 Reporting Worksheet is attached and reflects the District's water losses. Discussion of various inputs are included in the Comments tab of that worksheet. The District's water losses are low compared to accepted standards. In Table 4-2, we present projected losses that represent nominal reductions over our current losses on a percentage basis.

The District uses coordination with other agencies (see Cal Fire discussion below) to augment District forces in finding leaks in remote areas.

Meter Replacement. The District continued its efforts to survey, verify, and change out the top users' water meters throughout our service area. Continued meter maintenance programs provide further field observation of our meters. Meter crews were assigned shift work so a Meter Technician can work a weekend shift in an effort to detect any tampering or interference of water meters. The District was more aggressive in identifying remote blow-off appurtenances and installing security caps to reduce water theft. Crews continue to evaluate and survey cross country water mains and their associated appurtenances, through its leak detection program, for potential cross-connections. Field personnel will continue to aggressively monitor and inspect our

distribution system through these various strategies which have steadily reduced unknown water loss acre feet totals.

Retrofits. The District completed retrofitting twelve fire hydrants with new automatic shut-off check valves on Valley Center Road to minimize water loss and property damage caused by high pressures.

Interagency Coordination. The District's agreement with the CAL Fire Puerta La Cruz Conservation Camp for weed and brush removal continued to provide beneficial evaluations of the remote and challenging areas of the distribution system. With their efforts, the District was able to detect leaks in some very remote and cross-country mainlines and appurtenances. Some of the cleared areas have not been surveyed or cleared in years. The CAL Fire agreement has provided a significant cost savings measure and has provided a more thorough inspection and survey assessment of our service area.

4.4. Estimating Future Water Savings

Estimates of both active and passive future savings have been incorporated into water use projections. See Table 4-2.

Regionally, the SDCWA applied the Alliance for Water Efficiency's Conservation Tracking Tool to derive both active and passive savings resulting from demand management programs. All information was developed by SDCWA and is reflected in Table 4-2 as discussed in Sections 4.2.1.11 and 4.2.2.5. Below is a description of the process employed by SDCWA.

Active conservation savings. Active conservation savings are derived from conservation programs and activities implemented within the Water Authority service area. Over 50 active conservation activities (such as indoor and outdoor incentives, landscape classes, and WaterSmart irrigation checkups) are tracked in the AWE Tool and are based on agencies' program participation. Water savings from these activities are calculated using water efficiency estimates, by activity type, contained in the standardized AWE Tool Library. Future active conservation is set at the 2015 level of participation in program offerings and estimated savings for each year over the planning horizon, excluding the recent large-scale turf replacement program. Additionally, retail water agency system loss control is estimated at 2 percent of total deliveries.

Passive conservation savings. Passive conservation savings is based on appliance standards, plumbing code changes, and conversion of active savings to passive as the useful life of devices are reached. Calculation of future passive savings starts in 2013 and is tracked over the planning period. Additionally, estimated savings from the 2015 Model Water Efficient Landscape Ordinance (MWELO) are included in this category. Based on discussions with subject matter expert Dr. Tom Chesnutt of A&N Technical Services, MWELO compliance on new residential development was set at 80 percent, and a majority of this savings was assumed to continue over the UWMP's 2040 planning horizon. Additionally, to capture anticipated market transformation on existing homes, the passive conservation total also includes savings from landscape conversions on a portion of

current single family homes. A quarter of existing single family homes (approximately 150,000 homes) in the Water Authority's service area are predicted to convert to efficient landscapes over the 2015 UWMP planning horizon.

Supporting data used in the conservation savings calculations were derived from the San Diego Association of Governments - Series 13 Regional Growth Forecast and include socio-demographic data on population and housing stock projections by member agency. The number of retail accounts by customer class was based on data provided by Water Authority member agencies through a survey conducted in the fall of 2015.

4.5. Water Use for Lower Income Households

In accordance with SB 1087, VCMWD adopted Resolution No. 2006-35, which grants water and sewer service priority within its jurisdictional boundaries to any proposed developments that include housing units for lower income households. The estimates in Table 4-3 represent the projected water uses from SDCWA for all income levels included in SANDAG's 2050 Regional Growth Forecast including single-family and multi-family water low-income demands.

The estimate of lower income housing single family and multi-family water demands have a projected income that is less than 80 percent of the median income. The median household income of the District is $87,378 (CAFR 2015).

Chapter 4 Tables

Table 4-1 Retail: Demands for Potable and Raw Water - Actual			
Use Type *(Add additional rows as needed)*	2015 Actual		
Use Drop down list *May select each use multiple times These are the only Use Types that will be recognized by the WUEdata online submittal tool*	Additional Description *(as needed)*	Level of Treatment When Delivered *Drop down list*	Volume
Single Family		Drinking Water	4,769
Multi-Family		Drinking Water	513
Commercial		Drinking Water	1,794
Institutional/Governmental		Drinking Water	163
Agricultural irrigation		Drinking Water	17,241
Losses		Drinking Water	1,413
Other		Drinking Water	32
		TOTAL	25,925
NOTES: Data presented are for fiscal year ending June 30th of the year shown (6-30-2015).			

Table 4-2 Retail: Demands for Potable and Raw Water - Projected						
Use Type *(Add additional rows as needed)*	Additional Description *(as needed)*	Projected Water Use *Report To the Extent that Records are Available*				
Use Drop down list *May select each use multiple times These are the only Use Types that will be recognized by the WUEdata online submittal tool*		2020	2025	2030	2035	2040-opt
Single Family	*See Notes	6,876	8,519	9,038	9,703	10,129
Multi-Family	* no change projected	483	483	483	483	483
Commercial	*See Notes	924	976	1,007	1,027	1,086
Institutional/Governmental	*See Notes	186	186	187	190	190
Agricultural irrigation	**Direct SDCWA Data	14,951	14,164	13,567	13,001	12,361
Losses		1,409	1,472	1,467	1,470	1,473
Other	Mixed use - MF + commercial	99	158	209	273	603
Other	Other - minor	29	29	29	29	29
		24,957	25,987	25,987	26,176	26,354
NOTES: *Number represents SDCWA M&I projection apportioned using SANDAG Land Use projections. **Subtracts passive and active savings: 995, 1307, 1458, 1591 and 1741 AF for years 2020 thru 2040, respectively. Projected future water use data are presented for fiscal years ending June 30th of the year shown.						

Table 4-3 Retail: Total Water Demands						
	2015	2020	2025	2030	2035	2040 *(opt)*
Potable and Raw Water *From Tables 4-1 and 4-2*	25,925	24,957	25,987	25,987	26,176	26,354
Recycled Water Demand *From Table 6-4*	47	137	222	231	231	231
TOTAL WATER DEMAND	25,972	25,094	26,209	26,218	26,407	26,585
NOTES: Actual and projected future water use data are presented in AFY for fiscal years ending June 30th of the year shown.						

Table 4-4 Retail: 12 Month Water Loss Audit Reporting	
Reporting Period Start Date (mm/yyyy)	Volume of Water Loss
07/2014	1413
NOTES: The AWWA Free /Water Audit Software version 5.0 was used to determine water losses. Presented in Acre Feet per Year (AFY).	

Table 4-5 Retail Only: Inclusion in Water Use Projections	
Are Future Water Savings Included in Projections? (Refer to Appendix K of UWMP Guidebook) *Drop down list (y/n)*	Yes
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.	Section 4.4, Page 4-4.
Are Lower Income Residential Demands Included In Projections? *Drop down list (y/n)*	Yes
NOTES:	

Chapter 5
SB X7-7 BASELINES AND TARGETS

5.1. Guidance for Wholesale Agencies

Valley Center Municipal Water District provides no wholesale water, so this section is not applicable.

5.2. Updating Calculations from 2010 UWMP

5.2.1. Update of Target Method

Per the law as adopted in SB X7-7, the District must establish per capita water use targets using one of four methods:

- **Method 1** – Eighty percent of the urban retail supplier's baseline per capita daily water use.
- **Method 2** – The per capita daily water use that is estimated using the sum of defined performance standards applied to indoor residential, landscaped area water use, and CII uses.
- **Method 3** – Ninety-five percent of the applicable state hydrologic region target, as stated in the State's April 30, 2009, draft 20x2020 Water Conservation Plan.
- **Method 4** – An approach developed by DWR and reported to the Legislature in February 2011.

The District selected Method 1 to calculate an urban water use target.

5.2.2. Required Use of 2010 U.S. Census Data

In the District's 2010 UWMP, the District used population estimates from SANDAG which were based on the 2010 U.S. Census. Those have been updated per the Final Census in 2012 with information provided by SANDAG.

5.2.3. SB X7-7 Verification Forms

The District is submitting these forms within Appendix G of this document.

5.3. Baseline Periods

In this 2015 UWMP, agencies may change the years selected for their baseline period, as compared with their 2010 UWMP.

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

The District is opting to stay with the original baseline period from 1999 to 2008. The original baseline period was a 10-year interval, and not a 15-year interval, because the recycled water delivered in 2008 was less than 10% of the total water use, 0.13%. This is verified in SB X7-7 Table 1.

5.3.2. Determination of the 5 Year Baseline Period (Target Confirmation)

The 5-year period selected by the District is from 2004 to 2008. This is presented in SB X7-7 Table 1.

5.4. Service Area Population

The District is using the population projections of the San Diego Association of Governments (SANDAG). As the Regional Census Data Center for the San Diego region, SANDAG works with the U.S. Census Bureau and local agencies on all census-related issues in the region. SANDAG is a member of the State Data Center Program of the U.S. Census Bureau. The District also used the populations generated by SANDAG in developing its population figures for the VCMWD 2010 UWMP.

The approach to determining the population in the service area that receives water from VCMWD is to begin with the VCMWD service area population, provided by SANDAG, and associated with the 2010 census. SANDAG further provided information regarding the occupied houses in the District service area, 8,935 households, as opposed to the housing stock which includes occupied and unoccupied houses. The District calculates the total number of domestic meters minus the non-commercial fire meters, which yields a number that is representative of the total number of households served by the District. The District total domestic meters for 2010 was 9,162. This would indicate that we serve all of the population included in the 2010 census. Given inherent inaccuracies in census taking, it is reasonable to assume that using the SANDAG population estimates for the District would be within the margin of error of the census. On a year to year basis, our population estimates are adjusted using the total number of domestic meters and multiplying by the number of residents per household of 2.77, a number which was developed and provided to the District by SANDAG.

After further research into the population issue, it is noted that the District has 49 Deferred Properties, which are properties that have opted out of receiving water service from VCMWD. After review of these properties, it was determined that only 23 of the deferred properties had

structures. It is noted that the number of people associated with these properties would be far less than 1% of the District's population, so these were considered insignificant from the standpoint of adjusting the total population numbers.

Given this information, in 2015 the District's number of customers in its service area was 25,394.

5.5. Gross Water Use

For the Valley Center Municipal Water District, Gross Water Use is rather straightforward and has the following components: Imported Water. As of now, the District does not have its own drinking water source, does not export water, has no indirect recycled use, and no industrial water use.

Following Methodology 1, the Gross Water Use calculated for 2015 was 25,598 AF.

5.6. Baseline Daily per Capita Water Use

As shown in SB X7-7 Table 5, the 10-year Baseline GPCD is 1768 and the 5-year Baseline GPCD is 1684.

5.7. 2015 and 2020 Targets

5.7.1. Application of Target Method

As stated in Section 5.2.1, the District selected Method 1 to calculate an urban water use target, which is the same Method selected by the District in their 2010 UWMP.

In their 2010 UWMP, the District calculated an urban water use target of 1415 GPCD by 2020.

For this 2015 UWMP Update, this target is the same. As shown in SB X7-7 Table 7-A, the 2020 urban water use target is 1415 GPCD.

Water suppliers have some flexibility in setting and revising water use targets. A water supplier may:

- Set its water use target and comply individually, or as part of a regional alliance.
- Revise its water use target in its 2015 urban water management plan or an amended plan
- Change the method it uses to set its water use target and report it in a 2010 amended plan or in its 2015 Urban Water Management Plan.

It is noted, however, that urban water suppliers are not permitted to change target methods after they have submitted their 2015 UWMP.

5.7.2. 5-Year Baseline 2020 Target Confirmation

The District performed the 5-year baseline 2020 Target Confirmation as required by completing SB X7-7 Table 7-F. This table indicates that the target derived from a 5% reduction from the 5-year baseline, or 1599 GPCD, is less restrictive than the 1415 GPCD required from Method 1 for the 2020 target.

5.7.3. Calculate the 2015 Interim Urban Water Use Target

In the 2010 UWMP, the District calculated an urban water use interim target of 1592 GPCD by 2015.

For this 2015 UWMP, this target is the same. As shown in SB X7-7 Table 8, the urban water use interim target for 2015 is 1592 GPCD.

5.7.4. Baseline and Targets Summary

The SB X7-7 verification tables are submitted as Appendix G of this 2015 Urban Water Management Plan to demonstrate compliance with the Water Conservation Act of 2009. Table 5-1 also presents a summary of information from those tables.

5.8. 2015 Compliance Daily per Capita Water Use

Based on the same methodology used in the previous UWMP, the daily per capita water use in 2015 was 911 GPCD. This value is also shown in SB X7-7 Table 9. This was derived by taking the amount of water imported and dividing it by the adjusted population being served by the District.

This achieves compliance with the 2015 interim 10% target reduction by reducing water use by 49%. As illustrated, the District has already reduced its water usage to the point of exceeding the 2020 20% water use reduction target.

5.9. Regional Alliance

The District is not choosing to comply with SB X7-7 requirements through a Regional Alliance.

Chapter 5 Tables

Table 5-1 Baselines and Targets Summary *Retail Agency or Regional Alliance Only*					
Baseline Period	Start Year	End Year	Average Baseline GPCD*	2015 Interim Target *	Confirmed 2020 Target*
10-15 year	*1999*	*2008*	*1,768*	*1,592*	*1,415*
5 Year	*2004*	*2008*	*1,684*		
*All values are in Gallons per Capita per Day (GPCD)					
NOTES: Data presented are for fiscal year ending June 30th of the year shown.					

Table 5-2: 2015 Compliance *Retail Agency or Regional Alliance Only**								
Actual 2015 GPCD	2015 Interim Target GPCD	**Optional Adjustments to 2015 GPCD** Enter "0" for adjustments not used *From Methodology 8*					2015 GPCD *(Adjusted if applicable)*	Did Supplier Achieve Targeted Reduction for 2015? Y/N
		Extraordinary Events	Economic Adjustment	Weather Normalization	TOTAL Adjustments	Adjusted 2015 GPCD		
911	1,592	0	0	0	0	911	911	Yes
All values are in Gallons per Capita per Day (GPCD)								
NOTES: Data presented are for fiscal year ending June 30th of the year shown.								

Chapter 6
SYSTEM SUPPLIES

6.1. Purchased or Imported Water

6.1.1. Metropolitan Water District of Southern California

The MWD was created in 1928 following the passage of the MWD Water District Act by the California Legislature to provide supplemental water for cities and communities on the south coastal plain of California. The MWD has 23 member agencies including the SDCWA, and covers an area which includes all or portions of Ventura, Los Angeles, Orange, Riverside, San Bernardino, and San Diego Counties. MWD serves as a water wholesaler, and provides water to its member agencies from both the Colorado River and the State Water Project. To meet emerging challenges from dry hydrologic conditions and regulatory restrictions that limit supplies from the State Water Project, Metropolitan's strategy also includes utilizing its storage programs to maximize available supplies in wet years for use in dry years. MWD's water supplies and management programs are discussed at length in the agency's 2015 Regional Urban Water Management Plan.

The MWD water is purchased by the San Diego County Water Authority for resale to its 23 member agencies. The SDCWA organization is described below.

6.1.2. San Diego County Water Authority

The San Diego County Water Authority was organized on June 9, 1944 under the County Water Authority Act for the express purpose of importing Colorado River Water into San Diego County. The SDCWA annexed to MWD in 1946 and is now represented on the MWD Board by six directors, as its largest customer. Upon its formation in 1954, the Valley Center Municipal Water District joined SDCWA and MWD to acquire the right to purchase and distribute imported water throughout its service area.

Valley Center MWD is one of 23 member agencies of the SDCWA, the regional wholesaler of imported waters. Member agency status entitles the District to directly purchase water from SDCWA on a wholesale basis. The District also looks to the SDCWA to insure, to the best of its ability, that adequate amounts of water will be available to satisfy future water requirements.

Historically, the Water Authority has relied on imported water supplies purchased from Metropolitan Water District to meet the needs of SDCWA's member agencies. Metropolitan's supplies come from two primary sources, the State Water Project and the Colorado River. The imported water from MWD is delivered into SDCWA's First and Second San Diego Aqueducts from MWD facilities located just south of the San Diego County/Riverside County

line, and consists of a combination of Colorado River Water and State Water Project Water. From 1991-1994, nearly 100 percent of the water originated in the Colorado River. From 1994-1995 on, the water supply originated from both the State Water Project and the Colorado River.

Water imported from MWD is sold wholesale to SDCWA's member agencies. Each agency is autonomous and its city council or board of directors sets local policies and water pricing structures, and appoints representatives (based on assessed valuation) to the SDCWA's Board of Directors. Valley Center MWD currently has one representative on the SDCWA Board.

After experiencing severe supply shortages from Metropolitan during the 1987–1992 drought, the Water Authority began aggressively pursuing actions to diversify the region's supply sources. Comprehensive supply and facility planning over the last 20 years provided the direction for implementation of these actions. Currently, imported water supplies consist of water purchases from Metropolitan, core water transfers from Imperial Irrigation District (IID) and canal lining projects that are wheeled through Metropolitan's conveyance facilities, and spot water transfers that are pursued on an as-needed basis to offset reductions in supplies from Metropolitan. The largest single-year of imported water sales recorded by the Water Authority was 661,300 AF in fiscal year 2007.

While SDCWA's water supplies are discussed at length in SDCWA's 2015 Urban Water Management Plan, some are also discussed briefly herein, particularly the more recently developed and implemented water supply sources. Of significance is the recent completion of the 50-MGD Claude "Bud" Lewis Carlsbad Desalination Plant, the largest seawater desalination plant in North America. As described below, this plant provides a drought-resistant reliable supply of water to the San Diego region through an agreement between the San Diego County Water Authority and Poseidon Resources, the company that operates the Plant.

6.1.2.1 Carlsbad Desalination Plant

To further diversify regional supplies, the Water Authority's 2005 Plan and 2010 Plan identified seawater desalination as a potential supply for meeting future demands. In keeping with the objective of these plans, in November 2012, the Water Authority entered into a formal Water Purchase Agreement with Poseidon Water, a private investor-owned company. The Water Purchase Agreement details commercial and financial terms for the development and purchase of desalinated ocean water produced at the Carlsbad Desalination Plant. Construction began in 2012 and commercial operation began in December 2015. This facility is currently in commercial operation and is capable of producing up to 56,000 AF per year. The Water Authority takes delivery of the desalinated water at the desalination plant. A 10-mile-long pipeline delivers water from the plant to the Water Authority's Second Aqueduct. The Second Aqueduct conveys the desalinated water to the Water Authority's Twin Oaks Valley

Water Treatment Plant, where it is mixed with existing drinking water supplies for regional distribution. The Carlsbad Desalination Plant is a reliable and drought-resistant supply.

6.1.2.2 SDCWA–Imperial Irrigation District Transfer Agreement

A Water Resources Plan developed by the Water Authority in 1993 and updated in 1997 emphasized the development of local supplies and core water transfers. Consistent with the direction provided in the 1997 plan, the Water Authority entered into a *Water Conservation and Transfer Agreement* in 1998 with IID, an agricultural district in neighboring Imperial County. Through the transfer agreement, deliveries into San Diego County from the Water Authority-IID transfer began in 2003 with an initial transfer of 10,000 AF. The Water Authority received increasing amounts of transfer water each year, according to a water delivery schedule contained in the transfer agreement. In 2015, the Water Authority received 100,000 AF. The transfer quantities will increase annually to 200,000 AF by 2021 and then remain fixed for the duration of the transfer agreement. The initial term of the transfer agreement is 45 years, with a provision that either agency may extend the agreement for an additional 30-year term. An added benefit is that during dry years when water availability is low, the conserved water will be transferred under IID's Colorado River rights, which are among the most senior in the Lower Colorado River Basin. Without the protection of these rights, the Water Authority would suffer greater delivery cutbacks when supplies are limited from Metropolitan.

6.1.2.3 Conserved Water from All American and Coachella Canal Lining Projects

In 2003, as part of the execution of the Quantification Settlement Agreement (QSA) on the Colorado River, the Water Authority contracted for 77,700 AF/YR of conserved water from projects to line the All American Canal and the Coachella Canal. Deliveries of conserved water from the Coachella Canal reached the region in 2007, and deliveries from the All American Canal reached the region in 2010. Supplies from the canal lining projects are considered verifiable Water Authority supplies.

6.1.2.4 Metropolitan Water District

The Water Authority's imported water supply sources include purchases from Metropolitan which are separate from and in addition to the Water Authority-IID Transfer supplies and Coachella Canal and All American Canal Lining Projects supplies. As one of 26 Metropolitan member agencies, the Water Authority is the largest in terms of purchases, purchasing 360,018 AF or about 21 percent of all the water Metropolitan delivered in fiscal year 2015. Section 6 of the Water Authority's 2015 Plan contains detailed information on Metropolitan's supplies, and information on Water Authority projected demands on Metropolitan, provided by Metropolitan, can be found in the Authority's 2015 Plan, Appendix I.

Table 6-8 presents the actual 2015 water supply purchased by Valley Center MWD from SDCWA, while Table 6-9 presents projected purchased water from the SDCWA through the year 2040.

6.2. Groundwater

As indicated in Table 6-1, VCMWD does not presently pump any groundwater. In the 2010 UWMP, there were references to groundwater development efforts, namely Paradise Mtn. Wells, Lake Turner Wells, and Cool Valley Wells. Since the 2010 update, those efforts have been set aside due to a number of factors including water quality issues, limitation on post-production capabilities, overall economics and groundwater rights concerns raised by adjacent property owners. Though in abeyance for now, groundwater development may be explored again in future years.

6.3. Surface Water

VCMWD does not use or plan to use self-supplied surface water as part of its water supply.

6.4. Stormwater

VCMWD is not intentionally diverting stormwater for beneficial reuse.

6.5. Wastewater and Recycled Water

6.5.1. Recycled Water Coordination

VCMWD is the only agency that collects or treats wastewater within their service area. The District has reported to SDCWA the established, confirmed recycled water production as presented in Table 6-4.

6.5.2 Wastewater Collection, Treatment and Disposal

6.5.2.1 Wastewater Collected Within the Service Area

VCMWD is the only agency that collects wastewater within their service area. Wastewater collection, transmission, treatment, and effluent disposal or water recycling are provided by the District to approximately 2,769 customers through two sewage treatment facilities: the 440,000 gallon per day Lower Moosa Canyon Water Reclamation Facility at Circle R Drive near Old Highway 395, and the 70,000 gallon per day Woods Valley Ranch Water Reclamation Facility. The Lower Moosa Water Reclamation Facility and the Woods Valley Ranch Water Reclamation Facility are operating well within design capacities and consistently meet discharge standards.

Refer to Table 6-2. Approximately 9% of the service area and 31% of the population within the VCMWD service area are provided wastewater service.

6.5.2.2 Wastewater Treatment and Discharge Within Service Area

The volume of wastewater treated at the Lower Moosa Canyon Water Reclamation Facility and the Woods Valley Ranch Water Reclamation Facility are presented in Table 6-3. All of the treated wastewater from the Lower Moosa Canyon plant is disposed of in percolation ponds. All of the discharge from the Woods Valley Ranch Water Reclamation Facility is recycled through golf course irrigation.

6.5.3 Recycled Water System

6.5.3.1 Lower Moosa Water Reclamation Facility

The Lower Moosa Water Reclamation Facility (Moosa) provides sewer treatment services in the District's Interstate 15 corridor area, from the Lawrence Welk development on the southern end, east to Hidden Meadows, and north to Circle R Drive. Ultimate capacity requirements for the service area are projected to be 1.0 mgd or 5,000 Equivalent Dwelling Units (EDUs).

The Moosa WRF can currently reliably treat and dispose of 0.44 mgd (504 ac-ft/yr). At this time, secondary treated effluent is discharged through a pipe that eventually discharges into ponds percolating to the San Luis Rey River basin.

Based on an estimated build-out of 50 EDUs per year, current plant capacity should be sufficient for at least 10 years. Recent connection history, however, indicates that the actual build-out rate may be lower, which would not only further delay the need for additional capacity, but would also delay the requirement to initiate direct reclamation of the treated effluent. At this point, it is anticipated that maintenance requirements, rather than expansion needs, will drive the timing of future plant improvements.

It is anticipated that flow rates above 0.440 mgd (493 ac-ft/yr) may require additional treatment to meet effluent disposal requirements. Recent improvements included adding fine-bubble diffusers to the aeration basins and a denitrification process to lower effluent nitrogen. Future improvements may involve improving effluent quality to full California Department of Public Health (CDPH) Title 22 standards, resulting in an effluent suitable for irrigation of nearby golf courses and agricultural operations.

6.5.3.2 Woods Valley Ranch Water Reclamation Facility (WVR WRF)

As approved, this 280-unit Specific Plan Area development can reclaim 100 percent of the 0.07 mgd (78.4 ac-ft/yr) tertiary treated effluent. The effluent is piped directly to an adjacent 18-hole golf course and used for irrigation. Seasonal storage is provided by on-site storage ponds. Several projects are planned to expand the existing WVR WRF to treat the effluent, which will

be tertiary treated and used to irrigate landscaping and open space areas on the golf course and future beneficial areas within future developments. One current project will expand the plant capacity to 0.275 mgd. Currently, it is planned to re-use this effluent at the golf course.

6.5.4 Recycled Water Beneficial Uses

In general, direct recycled water used to date has been from the Woods Valley Ranch WRF for golf course irrigation. Secondary effluent from the Lower Moosa Water Reclamation Facility has been discharged to percolation beds which recharges water into the groundwater of the 3.12 Hydrologic Unit. No beneficial uses are listed for this groundwater, though there are beneficial uses for the 3.12 Moosa Canyon portion of the San Luis Rey River watershed.

6.5.4.1 Current and Planned Uses of Recycled Water

Information on existing and projected recycled water direct beneficial uses within the service area is summarized in Table 6-4.

At this time, there are several proposed developments for construction of wastewater treatment and reclamation facilities that may provide recycled water in the future including the following:

6.5.4.1.1 Lower Moosa Canyon WRF Upgrades

For some time now, the District has anticipated delivering recycled water from the Moosa plant to the nearby Lawrence Welk and Castle Creek Golf Courses. Although the two golf courses currently use well water for irrigation, the drought has threatened the viability of the groundwater supply, and thus, recycled water use has become more attractive. Presently, it is unclear at what point the use of recycled water on either of these courses would be viable. Several forms of advanced wastewater treatment facilities at the Lower Moosa Canyon WRF are being examined. The facilities being considered range from processes able to produce T22 effluent suitable for landscape irrigation to processes that would produce Indirect Potable Reuse. The improvements may divert all flow or a portion of the flow from the existing percolation pond. The total capacity for this upgraded facility will be 1.0 mgd (1,120 ac-ft/yr).

The 1,750-unit Lilac Hills Development has been proposed which, if approved, would have its wastewater treatment and disposal needs served by the LMCWRF. This would require a capacity expansion of roughly 300,000 gpd, as well as a treatment upgrade to tertiary treatment. If this project does move forward, the District would also provide for a treatment upgrade of the current flow to tertiary.

The tertiary treated effluent of 650,000 gpd would then be used to irrigate the nearby Castle Creek Golf Course, landscape and agricultural planting on the Lilac Ranch Project, as well as existing agricultural plantings near the LMCWRF.

If the Lilac Hills Project does not move forward in the near future, the District will pursue a tertiary treatment upgrade of the LMCWRF, anticipated to be funded by a combination of local, state and federal grants and loans to serve reclaimed water demand currently existing near the facility.

6.5.4.1.2 Woods Valley Ranch Water Reclamation Facility (WVR WRF)

As approved, this 280-unit Specific Plan Area development has a capacity of 0.07 mgd (78.4 ac-ft/yr) and reclaims 100 percent of the tertiary treated effluent. The effluent is used to irrigate the 18-hole golf course. Seasonal storage is in on-site storage ponds. Several projects are planned to expand the existing WVR WRF to treat the effluent, which will be tertiary treated and used to irrigate landscaping and open space areas on the golf course and future beneficial areas within future developments.

The District is currently expanding the existing Wood Valley Ranch treatment plant with the Phase II Expansion. This expansion will provide 0.2 MGD of additional treatment capacity and improvements that will enable the existing plant to expand capacity from 0.07 MGD to 0.075 MGD. There is a planned future expansion at this site which tentatively would increase plant capacity by another 0.2 MGD. The rate of expansion is directly tied to development, so there is the potential that these facilities will be constructed and in operation in the next five to ten years, and the WVR WRF will reach full flow potential in 15 to 20 years. In addition to this, all other future wastewater treatment facilities will be inland discharge operations, with 100 percent of effluent being disposed of via some form of direct or indirect recycling.

In the distant future, on a separate site but associated with this wastewater system, there is also the potential for a 0.125 MGD WRF that would provide additional recycled water for landscape irrigation.

6.5.4.1.3 Meadowood Development

A recent annex into the District, the Meadowood development may be generating recycled water from new or expanded wastewater facilities, or may be piping their wastewater to Oceanside for treatment at the San Luis Rey WRF. Though this is a potential future source of wastewater, it is uncertain at this time.

6.5.4.2 Planned Versus Actual Use of Recycled Water

Table 6.5 provides a summary of actual vs planned recycled water use in the service area. Golf course irrigation from the Woods Valley Ranch WRF has been the only direct recycled water use that actually occurred that was planned per the 2010 District UWMP. Due to delays in the development of the Woods Valley Ranch Water Reclamation Facility service area, there was less total recycled water use, 45 AF/yr. than was planned, 77 AF/yr. Refer to Table 6-5.

The other planned uses of recycled water were all tied to new development that did not proceed at the anticipated pace. Those developments include Live Oak Ranch, North Village WRF, Lilac Ranch and Orchard Run.

6.5.5 Actions to Encourage and Optimize Future Recycled Water Use

In general, the expansion of recycled water use in the District's service area is in large part tied to development. Given that situation, there are several steps that have been taken by the District and regional agencies to encourage the use of recycled water when it becomes available.

6.5.5.1 District Commitment to Recycled Water Use

In May 1990, the District adopted Ordinance No. 201, which set forth the policy of mandatory reclaimed water use wherever feasible. This ordinance was updated in February 1998 during the adoption of the District's Administrative Code Section establishing the agency's reclaimed water rules and regulations. This ordinance requires that wherever there is the potential for current or future reclaimed water use, new developments will be required to install the facilities necessary to facilitate reclaimed water use. Along with these policy statements is the realization that the District service area is now currently, and will be for the foreseeable future, isolated from an ocean outfall. All future development, which includes wastewater treatment, will also require 100 percent inland discharge via landscape or agricultural reclamation. With no ocean discharge option, there is little or no alternative other than to develop some form of reclamation for beneficial uses within the District service area.

With this in mind, the District Board has directed its staff to work with proponents of potential wastewater systems, including private interests as well as other governmental entities, to develop effective reclaimed water use plans for their respective projects. District staff has also been directed to facilitate the inclusion of near or adjacent properties in the wastewater development plans of the larger developments.

Finally, the Board has followed a policy of agreeing to ultimately accept ownership, operation and maintenance of the facilities meeting all of the District's engineering, operational, and financial requirements.

6.5.5.2 Funding Programs

The capital intensive cost of constructing recycled water projects has traditionally been a barrier to project implementation. The up-front capital cost for construction of treatment facilities and recycled water distribution systems can be expensive, while full market implementation is usually phased in over a number of years, thus affecting the cash flow in the early project years. This situation is compounded by the seasonal nature of recycled water demands. Recycled

water demands tend to peak during the hot summer months and drop off during the winter months when landscape irrigation demands are low. Projects that serve a large portion of irrigation demands, like the majority of the projects in the SDCWA's service area, often utilize only half of their annual production capacity due to these seasonal demand patterns. The costs of these projects tend to be higher than those of projects that serve year-round demands, since the project facilities must be sized to accommodate seasonal peaking. Projects that serve mostly irrigation demands also tend to have less stable revenue bases, since irrigation demands are heavily influenced by hydrologic conditions.

To be financially feasible, a project's benefits must offset or exceed its associated costs. Agencies developing recycled water projects must be able to quantify these benefits in order to determine the economic feasibility of a project. Project benefits can take the form of:

1. Revenues from the sale of recycled water;
2. Increased supply reliability;
3. Increased control over the cost of future water supplies;
4. Avoided water and wastewater treatment, storage, and conveyance costs; and
5. Financial incentives from the SDCWA, MWD, and federal and state agencies.
6. When the long-term economics are considered along with the increased supply reliability, water recycling can be a viable option.

As diversified funding options can be significant in the success of a water recycling project, the SDCWA has focused on providing and facilitating the acquisition of outside funding for water recycling projects as a very high priority. Several funding programs detailed in this section are critical success factors in the implementation of water recycling in San Diego County.

A number of financial assistance programs are available to San Diego County agencies including: the SDCWA's Financial Assistance Program (FAP) and Reclaimed Water Development Fund (RWDF); MWD's Local Resources Program (LRP); the USBR Title XVI Grant Program; and the SWRCB low-interest loan programs. Together, these programs offer funding assistance for all project phases, from initial planning and design to construction and operation.

6.5.5.2.1. Financial Assistance Program

As an impetus to begin local projects, SDCWA offers the Financial Assistance Program (FAP) to encourage, through the provision of matching funds, facility planning, feasibility investigations, preliminary engineering studies, environmental impact reports, and research projects related to water recycling and groundwater development. Agencies receiving FAP funds are required to reimburse the SDCWA when implementation of the project results in funding from other sources, such as the LRP or RWDF, or within five years of certification of the project environmental report, whichever occurs first.

6.5.5.2.2. Reclaimed Water Development Program

In response to significant up-front costs of many water recycling projects, the RWDF, adopted by the SDCWA's Board of Directors in April 1991, contributes up to $200/AF of beneficial reuse for recycling projects that demonstrate a financial need. This contribution is to offset costs, especially in the early years of project start-up. In order to qualify, project expenses must exceed project revenues. To date, the SDCWA has entered into RWDF agreements for ten projects with a combined ultimate yield of 32,000 ac-ft/yr.

6.5.5.2.3. Local Resources Program

MWD also has a program that currently underwrites local projects during the initial years of operation. MWD's local resources program provides subsidies of up to $250/AF for recycled water and groundwater development projects.

The Reclamation Wastewater and Groundwater Study and Facilities Act - Title XVI Grant Program is a significant source of funding for San Diego area recycling projects. Title XVI of Public Law 102-575, the Reclamation Wastewater and Groundwater Study and Facilities Act, authorizes the federal government to fund up to 25 percent of the capital cost of authorized recycling projects, including the San Diego Area Water Reclamation Program, an inter-connected system of recycling projects serving the MWD Wastewater System service area. PL104-266, the Reclamation Recycling and Water Conservation Act of 1996, authorized two additional projects in northern San Diego County: the North San Diego County Area Water Recycling Project and the Mission Basin Brackish Groundwater Desalting Demonstration Project.

6.5.5.2.4. State Revolving Fund/Water Reclamation Loan Program

The State Revolving Fund (SRF) and the Water Reclamation Loan Program (WRLP) provide agencies with low-interest construction loans for water recycling and groundwater projects. The SRF and WRLP loans carry an interest rate equal to 50 percent of the state's general obligation bond interest rate. This below-market interest rate can result in substantial savings on debt service. In November 1996, Proposition 204 was approved by the voters and provided $80 million for the SRF and $60 million for WRLP. Proposition 13, approved by the voters in March 2000, provides an additional $40 million for low-interest loans and grants for design and construction of water recycling projects to the existing water recycling funding program. Combining this with loan repayments from prior loans and funds remaining from Proposition 204, over $100 million is available.

6.5.5.3 SDCWA Policies, Ordinances and Guidance Document

The SDCWA has adopted a number of policies, guidance documents, and a model ordinance to assist local agencies with water recycling project implementation. Many local agencies, including the District, have adopted the SDCWA-sponsored ordinance. The ordinance includes

provisions that typically require new development projects to install recycled water systems. The ordinance also states that, where allowed by law and available in sufficient quantities and at a reasonable cost and quality, recycled water shall be the sole water supply delivered for non-potable uses.

Water recycling guidance documents available from the SDCWA include: Model Rules and Regulations for Recycled Water Service, Construction Specifications for Recycled Water Systems, Retrofit Guidelines, and a Recycled Water User's Manual.

6.5.5.3.1 SDCWA Training Opportunities

Understanding similarities and differences between recycled and potable water is important to the successful operation of a recycled water system. The SDCWA, in partnership with other water agencies, offers a one-day certification course designed to provide irrigation supervisors with a basic understanding of recycled water. The class provides information to supervisors on the water recycling process, recycled water quality and safety issues, the duties and responsibilities of the supervisor, landscape irrigation fundamentals, maintenance and management, and cross connection control shut-down tests and inspections. Instructors include a state registered environmental health specialist and environmental assessor, water quality chemist/reclamation specialist, and landscape specialists. Completion of the Recycled Water Site Supervisor Training fulfills the training requirement as mandated by regulatory authorities.

6.6. Desalinated Water Opportunities

In the region, the 50-MGD Claude "Bud" Lewis Carlsbad Desalination Plant provides a significant drought-proof reliable supply through the SDCWA. Due to the inland location of the District and the lack of availability of an ocean outfall for brine disposal, large scale desalination has to date been considered cost prohibitive.

Smaller scale desalination opportunities may be cost effective due to recent increases in the cost of potable water in the region. The District will consider these opportunities on a case by case basis.

6.7. Exchanges or Transfers

The District does not have any planned or potential future water exchanges or transfers to receive or deliver water supplies on a short-term or long-term basis. The District relies almost entirely on water purchased from the SDCWA, and does not participate individually in any water transfer or exchange programs at this time. Regional exchanges by SDCWA and MWD are detailed in their 2015 UWMPs.

6.8. Future Water Projects

The District has several planned future water supply projects or water supply programs pertaining to water reclamation and local groundwater development. Currently, the District is preparing an integrated water resources master plan that will provide an overview of local water supply projects to be considered for future development. All water generated from the proposed Local Water Supply Projects will offset imported water demand.

Until the integrated water resources master plan is further developed, a final determination of overall yield is not available.

Annual water reclamation yields will be based on ultimate build-out of each reclamation plant's service zone and are subject to change based on real estate market conditions, final development design, and County planning ordinances. Estimated groundwater yields will be based on historic groundwater testing and will be adjusted to reflect new pump test results and final well development. Other constraints to project implementation include overall project feasibility and funding availability.

6.8.1 Water Reclamation

6.8.1.1. Woods Valley Ranch Water Reclamation Facility Expansion

This project will expand the existing 70,000 GPD tertiary treatment facility to 275,000 GPD. The capacity increase will allow the District to serve a total of 1375 homes, which are both approved and planned within Valley Center's "South Village" area as defined by San Diego County planning documents and may produce an estimated 231 ac-ft/yr of recycled water. Additionally, a wastewater collection system designed to serve existing developed properties and future development is a part of the project. The recycled water from the expansion will be utilized to irrigate the Woods Valley Ranch Golf Course.

Currently discussions are underway with local development interests to initiate a Phase III which could possibly take the plant to its master-planned capacity of 2,200 EDU's and add another seasonal storage reservoir. As Phase II will likely meet the recycled water absorptive capacity of the Woods Valley Ranch Golf Course, other landscape and agricultural customers will be sought for the additional 180,000 gpd of flow.

6.8.1.2. North Village Water Reclamation Facility

The NVWRF will serve Valley Center's "North Village" planning area as defined by San Diego County planning documents. This area includes existing and proposed commercial and residential development as well as existing public facilities including the Valley Center-Pauma Unified School District, County of San Diego Department of Public Works, U.S. Post Office, and VCMWD operational and administrative facilities. Tertiary treated effluent will be utilized within the service zone for agriculture irrigation, parkway landscaping, and dedicated open space.

Although wastewater flow rates are yet to be determined pending final development approval from the County of San Diego Department of Planning and Land Use, it is estimated that approximately 151 ac-ft/yr of recycled water will ultimately be available for reuse.

6.8.1.3. Lower Moosa Canyon Water Reclamation Facility (LMCWRF) Treatment Process Upgrade and Reclamation System

The LMCWRF Treatment Process Upgrade and Reclamation System project (Project) is a multi-phased project that will expand and upgrade the LMCWRF's current wastewater treatment process and construct a recycled water distribution system for an ultimate capacity of 1.0 mgd. The proposed facilities will potentially produce and distribute approximately 840 ac-ft/yr of tertiary-treated effluent within the proposed reuse area including agriculture, parkway landscaping, dedicated open space, and golf courses. This project will offset the demand for imported water with a more stable supply of highly treated effluent.

6.8.2. Groundwater Development

Groundwater development has been deferred for a number of reasons discussed in section 6.2. Though in abeyance for now, groundwater development may again be explored in future years.

6.9. Summary of Existing and Planned Sources of Water

Table 6-8 provides the actual and Table 6-9 provides the projected water supplies for the District by both source and volume.

6.10. Climate Change Impacts to Supply

Climate change and other potential impacts to projected Water Supply Resources are discussed at length in SDCWA's 2015 Plan, particularly in subsection 10.1.4 of Section 10 *Scenario Planning – Managing an Uncertain Future,* and a brief summary of the Water Authority's discussion is included herein for the reader's convenience.

Future Potential Scenario 5 - Climate Change considers the potential influence climate change may have on the projected resource mix. Because there are still too many uncertainties regarding the impact of climate change on supplies and demands, a qualitative risk assessment is conducted. The assessment is based primarily on the DWR October 2008 Report entitled *"Managing an Uncertain Future; Climate Change Adaptation Strategies for California's Water."*

When evaluating the effects of climate change on long-term water supply planning, a distinction should be made between climate and weather. Weather consists of the short-term (minutes to months) changes in the atmosphere. Climate is how the atmosphere "behaves" over relatively long periods of time. Climate change refers to changes in long-term averages of

daily weather. Changes to climate will be gradual, providing water supply agencies the ability to adapt planning strategies to manage the supply uncertainties. The effect on supply would be gradual and captured in each five-year update to the UWMP.

Researchers have concluded that increasing atmospheric concentrations of GHGs, such as carbon dioxide, are causing Earth's air temperature to rise. While uncertainties remain regarding the exact timing, magnitude, and regional impacts of the temperature and potential precipitation changes due to climate change, researchers have identified several areas of concern that could influence long-term water supply reliability. These potential areas of concern are listed below.

Loss of Natural Snowpack Storage. Rising temperatures reduce snowpack in the Sierra Nevada because more precipitation falls as rain, and snowmelt occurs sooner. Snowpack in the Sierra Nevada is the primary source of supply for the State Water Project. Snowpack is often considered a large surface "reservoir," where water is slowly released between April and July each year. Much of the state's water infrastructure was designed to capture the slow spring runoff and deliver it during the drier summer and fall months. DWR projects that the Sierra Nevada snowpack will experience a 25 to 40 percent reduction from its historic average by 2050.

Sea Level Rise. Rising sea levels could increase the risk of damage to water and water recycling facilities from storms, high-tide events, and erosion of levees. A potential catastrophic levee failure in the Delta could interrupt supplies from the State Water Project, potentially reducing supply deliveries to the San Diego region from Metropolitan. In addition, rising sea levels could cause saltwater intrusion into the Delta, degrading drinking water quality. More freshwater releases from upstream reservoirs would be required to repel the sea to maintain salinity levels for municipal, industrial, and agricultural uses.

Changes in Average Precipitation and Runoff Volume. The effect of climate change on overall precipitation and runoff volumes is still unclear and highly uncertain. For example, a number of studies conclude that the flow of the Colorado River may be reduced by climate change, but a wide disparity exists on the predicted volume. The yield from local surface water resources could potentially be reduced, if annual runoff volumes are reduced due to a decline in precipitation or an increase occurs in evapotranspiration in reservoirs. It must be highlighted that research is still highly unclear on how precipitation levels may be impacted by climate change.

Change in Frequency and Intensity of Droughts. Warming temperatures, combined with potential changes in rainfall and runoff patterns, could exacerbate the frequency and intensity of droughts.

Demands Levels. Climate change could also gradually affect water demands out in the future. Warmer temperatures increase evapotranspiration rates and the growing season, which are likely to increase outdoor consumptive water use for landscaping. As part of the water demand forecasting effort for the 2015 Plan, the long-term influence of climate change on demands in the San Diego region was evaluated. Results from the analysis are included in Section 2 of SDCWA's 2015 Plan.

All five of the areas discussed above focus on the potential effect climate change could have on future supply reliability. The potential long-term effect is a possible decrease in the availability of imported supplies from Metropolitan and local supplies -- causing a potential gap between supply and demands. With so many unknowns regarding the actual impact, the previous uncertainty scenarios could be seen as capturing any potential shortfalls in supply due to climate change. In addition, the supply and demand impacts from climate change will start to be experienced within the 2015 Plan 25-year planning horizon and should be considered in establishing "no regret" strategies that provide water supply benefits within the planning horizon, while increasing the ability to manage potential climate change impacts in the future.

Chapter 6 Tables

Table 6-1 Retail: Groundwater Volume Pumped						
☑	Supplier does not pump groundwater. The supplier will not complete the table below.					
Groundwater Type ***Drop Down List*** *May use each category multiple times*	Location or Basin Name	2011	2012	2013	2014	2015
Add additional rows as needed						
TOTAL		0	0	0	0	0
NOTES:						

Table 6-2 Retail: Wastewater Collected Within Service Area in 2015						
☐	There is no wastewater collection system. The supplier will not complete the table below.					
9	Percentage of 2015 service area covered by wastewater collection system *(optional)*					
31	Percentage of 2015 service area population covered by wastewater collection system *(optional)*					
Wastewater Collection			**Recipient of Collected Wastewater**			
Name of Wastewater Collection Agency	Wastewater Volume Metered or Estimated? *Drop Down List*	Volume of Wastewater Collected in 2015	Name of Wastewater Treatment Agency Receiving Collected Wastewater	Treatment Plant Name	Is WWTP Located Within UWMP Area? *Drop Down List*	Is WWTP Operation Contracted to a Third Party? *(optional)* *Drop Down List*
Add additional rows as needed						
Valley Center MWD	Metered	370	VCMWD	LMCWRF	Yes	No
Valley Center MWD	Metered	47	VCMWD	WVRWRF	Yes	No
City of Escondido	Estimated	10	City of Escondido	Hale Avenue	No	No
Total Wastewater Collected from Service Area in 2015:		427				
NOTES: Units of Measure: Acre Feet per Year (AFY). Number of lots served by Escondido = 44. 'Metered' notation above refers to flow measured at the water reclamation facility indicated. Data presented are for fiscal year ending June 30th of the year indicated (6-30-2015).						

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 *(optional)*	Method of Disposal ***Drop down list***	Does This Plant Treat Wastewater Generated Outside the Service Area?	Treatment Level ***Drop down list***	2015 volumes			
							Waste-water Treated	Discharged Treated Wastewater	Recycled Within Service Area	Recycled Outside of Service Area
Add additional rows as needed										
Lower Moosa Canyon Water Reclamation Facility	Lower Moosa Creek Perc Ponds	60 AF Perc Ponds on adjacent to Lower Moosa Creek		Percolation ponds	No	Secondary, Undisinfected	336	336	0	0
Woods Valley Ranch Water Reclamation Facility	Woods Valley Ranch Golf Course	Golf Course		Land disposal	No	Tertiary	47	0	47	0
						Total	383	336	47	0

NOTES: Units of Measure: Acre Feet per Year (AFY). Data presented are for fiscal year ending June 30th of the year indicated (6-30-2015).

Table 6-4 Retail: Current and Projected Recycled Water Direct Beneficial Uses Within Service Area

☐	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:	Valley Center Municipal Water District
Name of Agency Operating the Recycled Water Distribution System:	Valley Center Municipal Water District
Supplemental Water Added in 2015	0
Source of 2015 Supplemental Water	N/A

Beneficial Use Type *These are the only Use Types that will be recognized by the DWR online submittal tool*		General Description of 2015 Uses	Level of Treatment *Drop down list*	2015	2020	2025	2030	2035	2040 (opt)
Agricultural irrigation									
Landscape irrigation (excludes golf courses)									
Golf course irrigation			Tertiary	47	137	222	231	231	231
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	Type of Use								
			Total:	47	137	222	231	231	231

IPR - Indirect Potable Reuse

NOTES: Units of Measure: Acre Feet per Year (AFY). Data presented are for fiscal year ending June 30th of the year indicated.

Table 6-5 Retail: 2010 UWMP Recycled Water Use Projection Compared to 2015 Actual			
☐	Recycled water was not used in 2010 nor projected for use in 2015. The supplier will not complete the table below.		
Use Type *These are the only Use Types that will be recognized by the WUEdata online submittal tool*		2010 Projection for 2015	2015 actual use
Agricultural irrigation		489	
Landscape irrigation (excludes golf courses)		17	
Golf course irrigation		77	47
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	Required for this use		
	Total	583	47
NOTES: Units of Measure: Acre Feet per Year (AFY). Data presented are for fiscal year ending June 30th of the year indicated.			

Table 6-6 Retail: Methods to Expand Future Recycled Water Use			
☐	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
Add additional rows as needed			
Woods Valley Ranch WRF (Phase 2)	Expansion of WVR Plant Capacity and Increase of Golf Course Recycling (Ult.)	2017	184
		Total	184

NOTES: Units of Measure: Acre Feet per Year (AFY). Data presented are for fiscal year ending June 30th of the year indicated.

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

☑	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.
☐	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	Expected Increase in Water Supply to Agency
	Drop Down List (y/n)	*If Yes, Agency Name*			*Drop Down List User may select more than one.*	*This may be a range*
Add additional rows as needed						

NOTES:

Table 6-8 Retail: Water Supplies — Actual

Water Supply	Additional Detail on Water Supply	2015		
Drop down list *May use each category multiple times. These are the only water supply categories that will be recognized by the WUEdata online submittal tool*		Actual Volume	Water Quality *Drop Down List*	Total Right or Safe Yield *(optional)*
Add additional rows as needed				
Purchased or Imported Water		25,598	Drinking Water	
Recycled Water		47	Recycled Water	
	Total	25,645		0

NOTES: Units of Measure: Acre Feet per Year (AFY). Data presented are for fiscal year ending June 30th of the year indicated.

Table 6-9 Retail: Water Supplies — Projected											
Water Supply		Projected Water Supply *Report To the Extent Practicable*									
Drop down list *May use each category multiple times. These are the only water supply categories that will be recognized by the WUEdata online submittal tool*	Additional Detail on Water Supply	**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)*
Add additional rows as needed											
Purchased or Imported Water		24,957		25,987		25,987		26,176		26,354	
Supply from Storage											
Groundwater											
Surface water											
Recycled Water		137		222		231		231		231	
Desalinated Water											
Stormwater Use											
Transfers											
Exchanges											
Other											
Total		25,094	0	26,209	0	26,218	0	26,407	0	26,585	0
NOTES: Units of Measure: Acre Feet per Year (AFY). Data presented are for fiscal year ending June 30th of the year indicated.											

Chapter 7
WATER SUPPLY RELIABILITY ASSESSMENT

The District receives all of its supply from SDCWA. Because of this situation, the reliability of the District's supply reflects that of SDCWA. Because of that fact, much of this section is extracted from the SDCWA 2015 UWMP. The data presented is based on data provided by SDCWA.

Under the Act, every UWMP must include an assessment of water supply reliability. The assessment must compare the total projected water supply and demands over the next 20 years in five-year increments under normal, single dry year, and multiple dry water years. In addition to the verifiable mix of resources used in the reliability assessment, additional planned resources by the Water Authority and its member agencies have also been identified and are discussed in this chapter and in further detail in Section 9 of the SDCWA 2015 Plan. Additional planned projects can further reduce the region's reliance on sources of supply from Metropolitan. This section presents a summary of the water demands and supplies within the Water Authority's service area, along with the reliability assessment and discussion on additional planned projects. Results from the reliability assessment demonstrate that even with very conservative assumptions regarding the availability of dry year supplies from Metropolitan, the region's existing and projected water resource mix is increasingly drought-resilient, but shortages still occur during a single dry-year by 2040, and more significant shortages during a multiple dry water year event beginning in 2028. These shortages can be mitigated through extraordinary water conservation actions and if necessary, dry-year transfers.

The Act also requires that the 2015 Plan include information, to the extent practicable, on the quality of existing supply sources and the manner in which water quality affects water supply reliability. This section includes brief summaries of water quality issues associated with supplies serving the San Diego region. Information on Colorado River and State Water Project supplies came in part from Metropolitan's final 2015 UWMP. Water agencies treat all water to meet stringent state and federal drinking water standards before delivering it to customers. However, source water of poor quality will make it increasingly expensive and difficult to meet those standards. Updated drinking water standards also result in additional costs to water suppliers. Refer to Section 7 of the San Diego County Water Authority's 2015 Urban Water Management Plan for more detailed information on water quality issues.

The District's 2014 Water Quality Report is included as Appendix C of this document.

7.1. Constraints on Water Resources

7.1.1. Colorado River

Metropolitan was formed to import water from the Colorado River. During the 1930s, Metropolitan built the Colorado River Aqueduct (CRA) to convey this water. Metropolitan's member agencies received the first deliveries in 1941. The aqueduct is more than 240 miles long, beginning at Lake Havasu on the Arizona/California border and ending at Lake Mathews in Riverside County. The aqueduct has the capacity to deliver up to 1.25 million AF/YR. Figure 7-1 shows the location of the aqueduct.

7.1.1.1 Colorado River Reliability and Legal Issues

Before 1964, Metropolitan had a firm annual allocation of 1.212 million AF of Colorado River water through contracts with the U.S. Department of the Interior, which was enough to keep Metropolitan's aqueduct full. However, as a result of the U.S. Supreme Court decision in *Arizona vs. California*, Metropolitan's firm supply fell to 550,000 AF, its basic annual apportionment. Due to growth in demand from the other states and drought conditions, since 2003, Metropolitan's deliveries have been limited to its basic annual apportionment plus water resulting from unused apportionment water by other California holders of priorities 1 through 3, and transfer programs resulting from conservation with other senior water right holders.

Water availability from the Colorado River is governed by a system of priorities and water rights that has been established over many years. The Colorado River Lower Basin states (California, Arizona, and Nevada) have an annual apportionment of 7.5 million AF of water divided as follows: California - 4.4 million AF; (2) Arizona - 2.8 million AF; and (3) Nevada - 300,000 AF.

The 1931 Seven Party Agreement established California's priorities for water among California's contractors to use Colorado River water made available to California. The first four priorities total the 4.4 million AF/YR available to California. Metropolitan has priorities 4, 5(a), and 5(b) water listed in the Seven Party Agreement, but only priorities 1 through 4 of the Seven Party Agreement are within California's basic annual apportionment. Metropolitan's fourth priority of 550,000 AF is junior to that of the first three priorities, 3.85 million AF to California agricultural agencies. Water used to satisfy Metropolitan's priorities 5(a) and 5(b) must come from unused allocations within California, Arizona, or Nevada, or from surpluses declared by the Secretary of the Interior.

7.1.1.2 Colorado River Environmental Considerations

Several fish species and other wildlife species either directly or indirectly have the potential to affect Colorado River operations, thus changing power operations and the amount of water deliveries to the CRA. A number of species that are on "endangered" or "threatened" lists

under the federal and/or California Endangered Species Acts (ESAs) are present in the area of the Lower Colorado River. To address this issue, a broad-based state/federal/tribal/private regional partnership, which includes water, hydroelectric power, and wildlife management agencies in Arizona, California, and Nevada, developed a multi-species conservation plan for the main stem of the Lower Colorado River (the Lower Colorado River Multi-Species Conservation Program [MSCP]). Developed between 1996 and launched in early-2005, this 50-year plan allows Metropolitan to obtain federal and state permits for any incidental take of protected species resulting from current and future water and power operations and diversions on the Colorado River. The MSCP also covers operations of federal dams and power plants on the Colorado River, and the change in point of diversion on the river for the Water Authority's conserved water transfer and canal lining projects.

7.1.1.3 Colorado River Water Quality Issues

The Colorado River is the primary source of the Water Authority's imported water supply. High salinity levels, uranium, and perchlorate contamination represent the primary areas of concern with the quality of Colorado River supplies. Managing the watershed of the Colorado River has been the most effective method for controlling these elements of concern. Refer to Section 7.2 of SDCWA's 2015 Urban Water Management Plan for additional discussion of Colorado River water quality concerns and how they impact water management strategies.

7.1.2 State Water Project

The State Water Project is owned by the State of California and operated by the California Department of Water Resources (DWR). Metropolitan has a take-or-pay supply contract with the State of California and is entitled to take about 48 percent of available State Water Project (SWP) water through its Long-Term SWP Water Supply Contract (referred to as the Table A allocation). The project stretches for more than 600 miles, from Lake Oroville in the north to Lake Perris in the south. Water is stored at Lake Oroville and released when needed into the Feather River, which flows into the Sacramento River and to the Delta. The Delta is the largest estuary on the United States' west coast, is home to the agricultural industry, recreation, and fishing, and also provides the means by which to deliver water from Northern California to the south. In the north Delta, water is pumped into the North Bay Aqueduct for delivery to Napa and Solano counties. In the south Delta, water is diverted into the State Water Project's Harvey O. Banks Pumping Plant (Banks Pumping Plant), where it is lifted into the 444-mile-long California Aqueduct. Some of this water flows into the South Bay Aqueduct to serve areas in Alameda and Santa Clara counties. The remainder flows southward to cities and farms in Central and Southern California. In the winter, when demands are lower, water is stored at the San Luis Reservoir located south of the Delta. State Water Project facilities provide drinking water to 23 million Californians and 755,000 acres of irrigated farmland. Figure 7-1 shows the California Aqueduct.

Figure 7-1
Major Water Conveyance Facilities
Serving San Diego County

7.1.2.1 State Water Project Reliability Issues

The reliability of State Water Project supplies is limited by the level of State Water Project supply development, pumping restrictions due to state and federal environmental regulations, and hydrology. When approved by the voters in the 1960s, the State Water Project was planned to deliver 4.2 million AF of water to 32 contracting agencies. Subsequent contract amendments reduced total contracted deliveries to 4.13 million AF and the number of contracting agencies to 29.

Metropolitan's contracted entitlement is currently at 1,911,500 AF. Metropolitan's original long-term water supply contract for 2,011,500 AF was amended as part of the 2003 QSA. Effective in 2005, the amendment resulted in an exchange agreement among Coachella Valley Water District (CVWD), Desert Water Agency (DWA), and Metropolitan. The exchange agreement provides for the transfer of 88,100 AF of Metropolitan's Table A amounts to CVWD and 11,900 AF of Metropolitan's Table A amounts to DWA.

When voters approved construction of the State Water Project in 1960, state planners did not expect the full amount of contracted water to be needed for at least the first 20 years of the project. As a result, the planners anticipated that the facilities needed to produce the full contracted amount would be constructed over time as demands on the system increased. However, decisions about these additional facilities were repeatedly deferred as public attitudes and environmental regulations changed and costs increased. New state and federal environmental laws put some potential water supply sources off limits to development. More stringent water quality standards adopted by the SWRCB to protect the San Francisco Bay/Sacramento-San Joaquin River Delta (Bay-Delta) have reduced the amount of water available for diversion. Environmental challenges to the State Water Project operations also resulted in the issuance of new biological opinions (BiOps), which led to pumping restrictions that further reduced State Water Project exports. At the same time, California's population and water demand continued to grow.

In 2006, then Governor Arnold Schwarzenegger established a Delta Vision process by Executive Order as stakeholders continued to seek a solution to the Delta issues. In 2008, the Delta Vision Blue Ribbon Task Force, formed as a result of Gov. Schwarzenegger's Delta Vision process, issued a Delta Vision Strategic Plan that provided 12 integrated and linked recommendations for long-term sustainable management of the Bay-Delta. In an effort to meet the recommendation to restore habitat within the Delta in a way that reliably delivers water, the California Natural Resources Agency (Resources Agency) initiated the preparation of the Bay Delta Conservation Plan (BDCP). While the BDCP is managed by the Resources Agency, the development of the Environmental Impact Report and Environmental Impact Statement (EIR/EIS) was led by DWR as state lead agency, and U.S. Bureau of Reclamation, the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fishery Service as federal co-lead agencies.

In 2009, the State of California passed SB X7-1, known as the Sacramento-San Joaquin Delta Reform Act (Delta Reform Act). The Water Authority, a strong advocate for a sustainable Bay-Delta solution, actively encouraged passage of the 2009 measure, among other bills that made up a comprehensive water package of legislation. The Delta Reform Act directed that the Bay-Delta be managed with dual goals of water supply reliability and ecosystem protection. The legislation also created the Delta Stewardship Council, which is charged with adopting and overseeing implementation of a comprehensive Bay-Delta management plan (Delta Plan).

In November 2009, the state Legislature passed a package of bills that established in state policy the co-equal goals of water supply reliability and environmental restoration in the Delta. The bills also provided a governance structure for the Delta and required the preparation of a Delta Plan to guide the process of achieving the co-equal goals and outline a plan to restore listed species. The Delta Stewardship Council, an independent state agency, adopted the Delta Plan in 2012. For the BDCP to be incorporated into the Delta Plan and for public funds to

be made available for public restoration benefits, the BDCP must also be approved by the California Department of Fish and Wildlife as a Natural Community Conservation Plan (NCCP). If unsuccessful, operational constraints likely will continue until a long-term solution to the problems in the Delta is implemented.

On December 13, 2013, DWR along with other lead and cooperating agencies released the BDCP document and draft EIR/EIS for public review. The BDCP, at that time, was planned as a joint Habitat Conservation Plan/Natural Community Conservation Plan (HCP/NCCP) intended to meet the state-mandated co-equal goals of restoring and protecting ecosystem health, water supply and water quality within a stable regulatory framework. The BDCP was to obtain 50-year California and federal ESA permits for the operation of the State Water Project and CVP.

After receiving more than 10,000 comment letters through the environmental review process, including concerns raised by the federal fishery agencies, it became clear to DWR and the lead agencies that the HCP/NCCP path presented insurmountable legal, regulatory, political, and practical implementation challenges. On April 30, 2015, Gov. Brown announced a new approach that de-coupled the BDCP's water conveyance and ecosystem restoration objectives into two distinct efforts – California WaterFix and California Eco Restore – with the intention of "accelerating" the projects and overcoming the identified implementation challenges.

In July 2015, the Partially Recirculated Draft EIR and Supplemental Draft EIS (PRDEIR/SDEIS) was released for a public review and comment period. The intent provides the public and interested agencies with an updated environmental analysis that addresses certain revisions to the draft BDCP. These revisions include several options to introduce new sub-alternatives and to address certain select issues raised in comments received on the draft BDCP and its accompanying environmental documents, including engineering refinements made to the BDCP water conveyance facilities. The PRDEIR/SDEIS identified and introduced Alternative 4A, also known as the California WaterFix, as the new preferred alternative. Rather than pursuing long-term 50-year permits to operate the proposed conveyance facilities, the California WaterFix is proposed to operate under Section 7 of the federal ESA and corresponding state regulations, similar to the current permit mechanism under which the State Water Project and Central Valley Project (CVP) operate. The public review and comment period closed October 30, 2015. The Record of Decision for the California WaterFix is scheduled in 2016.

DWR's *State Water Project Delivery Capability Report 2015* updated DWR's estimate of the current (2015) State Water Project delivery capability. Historically, the Capability Report provided estimates of the current and future (20 years in the future) State Water Project delivery capability. However, the 2015 report only showed that current deliveries continue to be impacted by significant restrictions due to operational requirements contained in federal BiOps. The 2015 report projected that the primary component of the annual State Water Project deliveries will be slightly less, when compared to the preceding 2013 report.

In developing its supply capabilities, Metropolitan assumed a new Delta conveyance as fully operational by 2030 and producing 1.2 million AF of average annual State Water Project supplies. Metropolitan also assumes near-term actions that would provide average annual State Water Project water supplies of 980,000 AF.

7.1.2.2 State Water Project Environmental Considerations

In recent years, actions taken to protect the ecosystem of the Bay-Delta have placed additional restrictions on State Water Project operations. The Bay-Delta is the largest estuary on the west coast and supports more than 750 plant and animal species. However, 150 years of human activity, dating back to 19th century gold mining, has taken its toll on the Bay-Delta ecosystem and the fish that live there.

Numerous factors contribute to the degradation of the Bay-Delta ecosystem and the decline of Delta fisheries, such as habitat loss, water diversions, non-point source pollution, over-fishing, and the introduction of non-native species. Regulatory protection efforts have nevertheless tended to focus on the operations of the State Water Project and the federal Central Valley Project (CVP). The restrictions began in 2007, when Federal Court Judge Oliver Wanger, acting in a case filed two years earlier, invalidated the BiOp for the Delta smelt and imposed an injunction that limited the time during which water could be pumped out of the Delta. The judge imposed restrictions on pumping to protect the Delta smelt, while new BiOps were being prepared. During the spring of 2008, Judge Wanger also invalidated the federal government's BiOps with respect to salmon and steelhead in the Sacramento River. In December 2008, the USFWS issued a new BiOp for the Delta smelt. This BiOp imposed operating restrictions that were even more severe than those imposed by the judge.

Metropolitan and other State Water Contractors filed separate lawsuits in federal district court challenging the BiOp, which were consolidated under the caption *Delta Smelt Consolidated Cases*. On March 13, 2014, the Ninth Circuit held that the 2008 BiOp is valid and lawful. The impacts of the 2008 BiOp on Delta smelt to Metropolitan's deliveries from the State Water Project are variable based on hydrologic conditions.

On June 4, 2009, the National Oceanic and Atmospheric Administration National Marine Fisheries Service issued a BiOp intended to protect spring- and winter-run Chinook salmon, Central Valley steelhead, green sturgeon, and Southern Resident killer whales. This action placed additional restrictions on State Water Project and CVP operations. Six lawsuits were filed challenging the BiOp and were consolidated under the caption *Consolidated Salmon Cases*. On December 22, 2014, the Ninth Circuit held that the 2009 BiOp is valid and lawful. DWR estimated a 10 percent average water loss under this BiOp.

7.1.2.3 State Water Project Water Quality Issues

The quality of State Water Project water as a drinking water source is affected by a number of factors, most notably seawater intrusion and agricultural drainage from peat soil islands in the Delta. State Water Project water contains relatively high levels of bromide and total organic carbon, two elements of particular concern to drinking water agencies. Bromide and total organic carbon combine with chemicals used in the water treatment process to form DBPs that are regulated under the federal Safe Drinking Water Act (SDWA). Wastewater discharges from cities and towns surrounding the Delta also add salts and pathogens to Delta water, and they influence its suitability for drinking and recycling.

The 2000 Record of Decision adopted by CALFED states that CALFED will either achieve water quality targets at Clifton Court Forebay and drinking water intakes in the south and central Delta, or it will achieve an "equivalent level of public health protection using a cost-effective combination of alternative source waters, source control, and treatment technologies."

Actions to protect Delta fisheries have exacerbated existing water quality problems by forcing the State Water Project to shift its diversions from the springtime to the fall, when salinity and bromide levels are higher. Closure of the Delta Cross-Channel gates to protect migrating fish has also degraded State Water Project water quality by reducing the flow of higher-quality Sacramento River water to the State Water Project pumps at critical times. This can result in increased concentrations of salinity and bromide in the water delivered to Southern California.

DWR is proposing construction of a new intake system as part of the BDCP. By moving the intakes upstream, this would improve the water quality in the Delta and could allow for increased deliveries in wet years. The California WaterFix (Alternative 4A) includes three new intakes along the Sacramento River and dual-bore tunnels to convey water to the existing state and federal pumping facilities, and habitat restoration measures and environmental commitments necessary to mitigate impacts in compliance with state and federal environmental laws. The environmental document for the California WaterFix was released for review and comments were closed on October 20, 2015.

This project will require broad support and funding commitments to implement.

Refer to Section 7.3 of SDCWA's 2015 Urban Water Management Plan for additional discussion of State Water Project water quality concerns and how they impact water management strategies.

7.1.3 Metropolitan Act Section 135 – Preferential Right to Water

Under Section 135 of the Metropolitan Act, each member agency has a preferential right to Metropolitan purchases. The Metropolitan Act stipulates that member agencies' preferential rights to Metropolitan water are proportional to their respective total payments to Metropolitan, "excepting purchase of water." Metropolitan calculates the preferential rights by including each agency's total historical payments to Metropolitan from property taxes, readiness-to-serve charges, and other minor miscellaneous revenue. Revenue resulting from the purchase of Metropolitan water is excluded, even though more than 82 percent of Metropolitan's revenues come from water sales.

Metropolitan member agencies' ability to exercise preferential rights was confirmed in a lawsuit filed by the Water Authority in 2001. The court decisions made clear each member agency's preferential right to Metropolitan water, including the Water Authority's preferential rights.

The Water Authority filed lawsuits against Metropolitan challenging MWD's water rates set in 2010, 2012, 2014 and 2016. The Superior Court issued the final judgment in December 2015 confirming its prior favorable rulings for the Water Authority's 2010 and 2012 lawsuits. (The 2014 case was stayed pending the final outcome of the 2010 and 2012 cases, and the 2016 case just filed.) In the 2010 and 2012 cases, the Water Authority also challenged how Metropolitan calculates member agencies' preferential rights, particularly by not including certain payments the Water Authority made that were unrelated to the purchase of Metropolitan water. The Superior Court also ruled in favor of the Water Authority, finding Metropolitan under-calculated the Water Authority's preferential right to Metropolitan water.

The 2010 and 2012 cases are being appealed, however, and at the time of this writing, the impact of the judge's decision to the Water Authority's preferential rights is not available. While the cases are pending appeal, Metropolitan continues to calculate the preferential rights under its existing assumptions. Using those assumptions, the Water Authority had a preferential right to purchase 18.42 percent of Metropolitan's water as of June 30, 2015. In contrast, the Water Authority purchased about 21 percent of Metropolitan's available supply in fiscal year 2015.

In Metropolitan's Draft 2015 UWMP, Section 2.3, Metropolitan presents its supply availability at the regional level, rather than at the member agency level. The report stated that the region can provide reliable water supplies under both the single driest year and the multiple dry-year hydrologies through 2040. The report lists Metropolitan's forecasted imported water supply capabilities under normal, single driest year, and multiple dry-year hydrologies through 2040, which would provide the Water Authority with adequate supplemental imported supplies in normal years and a single dry year. In multiple dry years, under its projected preferential right formula, the Water Authority could experience shortages as indicated in **Section 9.3** of the Authority's 2015 Plan.

7.1.4 Development of Projected Water Resources Mix

Development of the projected mix of resources to meet future demands is based on the following factors:

I. Member agency information on projected water recycling, potable reuse, groundwater, desalination, and surface water (discussed in SDCWA Plan Section 5)

II. Attaining the additional regional water use efficiency targets (SDCWA Plan Section 2)

III. Board approvals taken in regard to Water Authority supplies (SDCWA Plan Sections 4 and 11):

   a. Agreement between IID and the Water Authority for Transfer of Conserved Water, and other related agreements (SDCWA Plan Section 4.2);

   b. Agreements related to the ACC and CC Lining Projects, and other related agreements (SDCWA Plan Section 4.3);

   c. Claude "Bud" Lewis Carlsbad Desalination Plant Water Purchase Agreement between the Water Authority and Poseidon Water (SDCWA Plan Section 4.5);

   d. Acceptance of San Vicente Dam Raise Project (emergency and carryover storage) as complete (SDCWA Plan Section 11.2.4);

   e. Approval of 2013 Regional Water Facilities Optimization and Master Plan Update (SDCWA Plan Section 1.6.4); and

   f. Agreements and actions related to out-of-region groundwater banking program (SDCWA Plan Section 11.2.4).

7.2. Reliability by Type of Year

Under the Act, every UWMP must include an assessment of water supply reliability. The assessment must compare the total projected water supply and demands over the next 20 years in five-year increments under normal, single dry year, and multiple dry water years. Given that all of the District's water supply is purchased from SDCWA, the reliability of District supply is directly tied to that of SDCWA. Thus, the assessment contained in the SDCWA 2015 Plan is essentially presented here with minor modifications.

The assessment contained in the SDCWA 2015 Plan evaluates reliability through the next 25 years. In addition to the verifiable mix of resources utilized in the reliability assessment, additional planned resources by the Water Authority and its member agencies have also been identified. Additional planned projects can further reduce the region's reliance on sources of supply from Metropolitan, such as the Bay-Delta. This section presents a summary of the water demands and supplies within the Water Authority's service area, along with the reliability assessment and discussion on additional planned projects. Results from the reliability assessment demonstrate that even with very conservative assumptions regarding the availability of dry year supplies from Metropolitan, the region's existing and projected water

resource mix is increasingly drought-resilient, but shortages still occur during a single dry-year by 2030, and more significant shortages during a multiple dry water year event beginning in 2028. These shortages can be mitigated through extraordinary water conservation actions and if necessary, dry-year transfers.

7.2.1. Types of Years

Because the SDCWA provides all of the drinking water supplies, the following reflects the ability of SDCWA to provide water during these varying conditions.

7.2.1.1 Average/Normal Year

Table 7-2 shows the normal year assessment, summarizing the total water demands within the District's service area through the year 2040 along with the supplies necessary to meet demands under normal conditions. If Metropolitan, the Water Authority and member agency supplies are maintained and developed as planned, along with achievement of the additional water conservation, no shortages are anticipated within the Water Authority's service area, and hence in the District in a normal year through 2040.

Average year demands are 100% satisfied by SDCWA supplies.

7.2.1.2. Single Dry Year

In addition to a normal water year assessment, the Act requires an assessment to compare supply and demands under a single dry year and multiple dry water years over the next 20 years, in five-year increments. Table 7-3 shows the single dry-year assessment. The dry-year demands reflect long-term water use efficiency, but do not incorporate potential savings due to extraordinary conservation occurring during droughts. This approach allows for a more comprehensive shortage analysis and drought response planning.

The projected groundwater and surface water yields are based on 2015 dry-year supplies during the present drought beginning in 2012. The Verifiable supplies available from member agency projected recycling, potable reuse, and groundwater recovery projects are assumed to experience little, if any, reduction in a dry year. The Water Authority's existing and planned conserved supplies from the IID transfer, canal lining projects, and Carlsbad Desalination Plant are also considered "drought-resilient" supplies. For this single dry-year assessment, it was assumed that Metropolitan is limited to 1.4 MAF of supplies due to dry conditions and increased reductions in deliveries from State Water Project (no Delta improvements) and/or reduction in Colorado River deliveries; and the Water Authority receives its preferential right based on Metropolitan's current method of calculating such rights.

In addition to a baseline normal demand projection, the Act also requires single dry-year and multiple dry-year demand estimates to evaluate water service reliability during dry-year events.

Based on observed historic demand impacts associated with each of these events, separate approaches were taken to forecast single and multiple dry-year conditions.

To develop single dry-year projections, a demand response index formula was used to identify the historic high temperature and low rainfall weather parameters that resulted in the maximum impact. Using this index, a representative single dry-year was selected. For this forecast, the year 2015 was selected. The monthly weather patterns associated with 2015 were then substituted into the CWA-MAIN model to generate dry-year demand projections. By holding all non-weather-related predictive variables constant, the model produces an annual forecast of dry-year weather-driven demand. Projected single dry-year demands taken on a proportionate basis to regional values developed by SDCWA are shown in Table 7-3.

With a very conservative assumption regarding limited Metropolitan supplies during a single dry water year and assuming Water Authority and member agency supplies are maintained and developed as planned, along with achievement of the additional conservation target, no shortages are anticipated within the Water Authority's service area in a single dry year until 2040. These shortages would be eliminated should Metropolitan supplies approach the supply levels projected in Metropolitan's Draft 2015 UWMP Single Dry Year Supply Capability.

7.2.1.3. Multiple-Dry Year Period

In accordance with the Act, Table 7-4 shows the multiple dry water year assessments in five-year increments. The numbers represented here are the District's proportionate share of SDCWA supplies, demands and difference during multiple dry year periods based on SDCWA projections.

Similar to the single dry-year assessment, the SDCWA member agencies' surface and groundwater yields are reflective of supplies available during the present drought, beginning in 2012, in years 2013, 2014 and 2015. However, due to recent supply conditions, the analysis for the 2017 to 2019 period was based on a different assumption. For this period, it was assumed water supplies are based on current levels for the first year and reduced down to actual 2015 levels over the three-year cycle ending with 2019. While surface and groundwater yields are based on historic estimates and remain the same, recycled and brackish groundwater yields are based on projected growth in these member agency supplies. For the multiple dry-year reliability analysis, the conservative planning assumption is that Metropolitan will be allocating supplies to its member agencies. By assuming allocations in this reliability assessment, it allows the Water Authority to analyze how storage supplies could potentially be utilized and the likelihood of shortages. Currently, Metropolitan allocates supplies through its WSAP. Because it is uncertain in the future how Metropolitan will allocate supplies to its member agencies, the analysis in the tables assumes supplies are allocated based on preferential right to Metropolitan supplies. Section 135, Preferential Right to Purchase Water, is included in the Metropolitan Act and allows a Metropolitan member agency to acquire, for use within the agency, supplies based on preferential right at any time.

The Water Authority's annual preferential right percentage of Metropolitan supplies, used in Table 7-4, is estimated through 2040 and is based on Metropolitan's current method of calculating preferential rights. In 2015, a Superior Court ruled Metropolitan under-calculated the Water Authority's preferential right to Metropolitan water. That ruling is being appealed. The analysis assumes the total Metropolitan dry-year supplies available for allocation to be 1.2 MAF for the period of 2017 to 2019 due to temporal proximity to current dry conditions and depleted storage levels; and a decreasing amount of 1.4 MAF, 1.3 MAF, and 1.2 MAF for the first, second, and third year respectively for the remaining multi-year dry periods. A conservative methodology was employed due to the numerous uncertainties associated with identifying Metropolitan's future available supplies and storage. This total supply assumes reduced deliveries from the State Water Project and Colorado River Aqueduct along with limited storage supplies. This conservative approach is based on Water Authority's experience with the current 5-year drought and its adverse impacts on imported water supplies.

Because of the closeness in time, the demands for the period of 2017 to 2019 were adjusted to align with current demands that are also dampened due the statewide Emergency Conservation Regulation currently in place. Specifically, the 2017 demands were adjusted to match demands from the Calendar Year 2017 Rates and Charges forecast to yield more accurate demand projections. Years 2018 and 2019 demands were then increased one percent from the previous year to account for minimal growth. As a result of this adjust to the 2017-2019 demands, there is a step-up in demand between in Table 7-4 between the 2020 (actually 2017) column and 2025 (actually 2021) column that provides for a return to, and alignment with the un-dampened dry year demand projections developed for the 2015 Plan.

The rest of the multi dry-year periods have the first year based on the multi dry-year demand forecast with the next two years being increased one percent from the previous year to account for growth. This method for the multi dry-year events was used in order to account for the lower than normal demand increases being experienced by the Water Authority and its member agencies as they respond to the current drought and conservation efforts

7.2.1.4. Sources for Water Data

The data described in this chapter came from the SDCWA and the 2015 SDCWA UWMP.

7.2.2 Agencies with Multiple Sources of Water

The District relies solely on SDCWA as a source of water.

7.3 Supply and Demand Assessment

Under normal conditions the District has no supply shortages through 2040.

Under single dry year conditions the District has no supply shortages through 2040.

Under specific parameters assumed in the multi dry-year analysis, shortages are experienced, as shown in Table 7-4. The significant shortages are due to increasing water demands due to economic growth within the region and the approach of applying restricted supply from Metropolitan. As with the Single Dry Water Year Supply and Demand Assessment, these shortages could be eliminated should Metropolitan supplies approach the supply levels projected in Metropolitan's Draft 2015 UWMP Multiple Dry Year Supply Capability.

As stated in the single dry-year analysis, carryover storage would be utilized in order to lessen the impacts of a supply shortfall.

It should be emphasized that the amount of extraordinary conservation savings expected to be achieved through mandatory measures, such as water-use restrictions, could be less than that experienced in the previous shortage periods due to demand hardening. Responsiveness to drought pricing and general price increases will diminish because remaining essential uses are less responsive to price. This will reduce customer discretionary demands and create less flexibility in the managing of demand during shortages, which will increase the importance of acquiring supplemental dry-year supplies to eliminate or reduce potential supply shortages. Long-term permanent conservation savings is critical to ensuring water is used most efficiently and will help avoid or minimize drought situations. Due to potential demand hardening, shortage management measures such as water-use restrictions and drought pricing may not be as effective in the future in achieving necessary savings to help reduce the supply gap.

7.4 Regional Supply Reliability

In the SDCWA's reliability assessment, the projected supplies from Metropolitan are considered supplemental and are calculated as the increment of supply necessary to meet demands after taking into account member agency and Water Authority supplies. Metropolitan staff provided the Water Authority with estimated demands on Metropolitan that will be used in their 2015 Plan. The estimated demands are shown to be adequate to provide the supply totals to cover the demands totals presented in Table 7-2.

The Water Authority has invested in carryover storage supply capacity, which can be utilized in dry years to improve reliability. The carryover storage investment includes both surface water storage in San Vicente Reservoir and out-of-region groundwater storage in California's Central Valley, for a total of 170,000 AF of carryover storage capacity available.

There are a number of factors to consider when determining the utilization of carryover supplies to reduce or eliminate shortages. The storage take amount should be handled on a case-by-case basis, considering such items as, current demand trends, core supply availability, hydrologic conditions, and storage supply available for withdrawal. These factors will vary depending upon the situation. For the analysis in the 2015 Plan, it was assumed the available carryover storage would be 120,000 AF going into the dry-year period. In determining the amount to utilize, the analysis uses general guidelines, consistent with previous Water Authority planning documents, that approximately one third of the carryover supplies available in storage will be utilized in one year. Utilizing a portion of available storage supplies avoids depletion of storage reserves, thereby making water available for potential ongoing or future shortages. The supplies taken from carryover storage will be considered a Water Authority regional supply to be combined with the Water Authority's core supplies and any potential dry-year transfers.

Under the Water Authority's current Transitional Special Agricultural Water Rate (TSAWR) program requirements, customers in the TSAWR class of service receive no water from the Carryover Storage Program during Stage 2 or 3 of the Water Shortage Drought Response Plan. During shortages, TSAWR deliveries are also cut back at the same level as Metropolitan's cutback to the Water Authority. Extension of the TSAWR program was approved by the Water Authority Board in March 2014 and will be revisited by the Board again in 2020. For planning purposes only, the assessments reflected in Table 7-4 do not factor in the exclusion from the Carryover Storage Program due to the uncertainties associated with the future of the program beyond 2020. This also provides a more conservative planning analysis.

In years where shortages may still occur after utilization of carryover storage, additional regional shortage management measures, consistent with the Water Authority's Water Shortage and Drought Response Plan, will be taken to fill the supply shortfall. These measures could include extraordinary conservation, achieved through voluntary or mandatory water-use restrictions. As discussed in the following section, the amount of savings achieved through extraordinary conservation measures could be limited due to demand hardening. In addition, the Water Authority could evaluate the option of securing dry-year transfers, which the Water Authority successfully acquired and utilized during the 2007-2011 shortage management period.

Table 7-1 Retail: Basis of Water Year Data			
Year Type	Base Year	Available Supplies if Year Type Repeats	
		Agency may provide volume only, percent only, or both	
		Volume Available	% of Average Supply
Average Year	2013		100%
Single-Dry Year	2015		100%
Multiple-Dry Years 1st Year	2013		100%
Multiple-Dry Years 2nd Year	2014		100%
Multiple-Dry Years 3rd Year	2015		100%
Multiple-Dry Years 4th Year *Optional*			
Multiple-Dry Years 5th Year *Optional*			
Multiple-Dry Years 6th Year *Optional*			
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: Data presented are for the fiscal year ending June 30th of the year indicated. Information based on data obtained from SDCWA.			

Table 7-2 Retail: Normal Year Supply and Demand Comparison					
	2020	2025	2030	2035	2040 *(Opt)*
Supply totals *(autofill from Table 6-9)*	25,094	26,209	26,218	26,407	26,585
Demand totals *(autofill from Table 4-3)*	25,094	26,209	26,218	26,407	26,585
Difference	0	0	0	0	0
NOTES: Data presented are for the fiscal year ending June 30th of the year indicated. Information based on data obtained from SDCWA.					

Table 7-3 Retail: Single Dry Year Supply and Demand Comparison					
	2020	2025	2030	2035	2040 (Opt)
Supply totals	28,717	28,306	28,113	28,300	27,421
Demand totals	26,873	28,076	28,113	28,300	28,956
Difference	1,844	230	0	0	(1,535)
NOTES: Data presented are for the fiscal year ending June 30th of the year indicated. Information based on data obtained from SDCWA.					

Table 7-4 Retail: Multiple Dry Years Supply and Demand Comparison						
		2020*	2025*	2030*	2035*	2040 *(Opt)
First year	Supply totals	22,633	30,954	31,203	31,200	31,413
	Demand totals	21,164	27,224	29,327	30,302	31,413
	Difference	1,469	3,730	1,876	898	0
Second year	Supply totals	23,944	29,178	29,620	30,605	31,023
	Demand totals	21,375	27,496	29,620	30,605	31,727
	Difference	2,569	1,682	0	0	(704)
Third year	Supply totals	25,153	27,771	29,564	29,516	29,464
	Demand totals	21,589	27,771	29,916	30,911	32,044
	Difference	3,564	0	(352)	(1,395)	(2,580)
Fourth year *(optional)*	Supply totals					
	Demand totals					
	Difference	0	0	0	0	0
Fifth year *(optional)*	Supply totals					
	Demand totals					
	Difference	0	0	0	0	0
Sixth year *(optional)*	Supply totals					
	Demand totals					
	Difference	0	0	0	0	0

* First year is 2017 not 2020; 2021 not 2025; 2026 not 2030; 2031 not 2035; and 2036 not 2040. Information is based on data obtained from SDCWA.

Chapter 8
WATER SHORTAGE CONTINGENCY PLANNING

8.1 Stages of Action

Pursuant to Assembly Bill 11 (First Extraordinary Session) amending Section 10631 of the Water Code to require an Urban Water Shortage Contingency Plan, the District prepared an amended Urban Water Management Plan, including an Urban Water Shortage Contingency Plan, which was originally adopted by the VCMWD Board of Directors on January 20, 1992 by Resolution 1305. Many of the policies contained in the Contingency Plan are policies that were adopted by the VCMWD Board of Directors in 1991, in anticipation of continued drought. The operative provisions of the contingency plan, i.e., water shortage response, water use prohibitions, enforcement charges, and penalties for excessive usage, are currently in place as part of the Valley Center Municipal Water District's Administrative Code (Articles 230 and 160).

The District's current water shortage contingency plan, Article 230, *Water Supply Management and Shortage Condition Response Plan* (Article 230), is based on four stages as defined in Table 8-1. The four levels are briefly described below, and are described in greater detail in Article 230 of the District's Administrative Code, which is included as Appendix E to this report.

Level 1 -- Water Supply Management Watch Condition exists at all times, irrespective of the availability of water supplies or hydrologic conditions. During a Level 1 condition, the District increases its public education and outreach efforts to emphasize increased public awareness of the need to use water in a beneficial and non-wasteful manner and actively encourages the implementation of many voluntary water conservation practices with the goal of achieving a voluntary reduction in water demand. Recommended but voluntary conservation practices during a Level 1 condition include:

a) Not using water to wash down paved surfaces such as sidewalks/patios/parking lots
b) Preventing water waste from inefficient landscape irrigation
c) Irrigating landscape areas before 10:00 a.m. and after 4:00 p.m. only; however, watering is permitted at any time when drip/micro-irrigation equipment is used. This section does not apply to agricultural water use.
d) Irrigate landscaped areas not irrigated by irrigation system, on same schedule as above, using bucket or hose with positive shutoff nozzle
e) Watering of potted plants is permitted at any time with a hand-held hose equipped with a positive shut-off nozzle, a bucket, or with drip/micro-irrigation equipment
f) Repairing all water leaks within five (5) days of discovery/notification
g) Using recirculated water for ornamental fountains
h) Washing cars with buckets and positive shutoff hose nozzles or at commercial car wash

i) Serving drinking water only on request at eating and drinking establishments
j) Hotels/motels/resorts prominently displaying the option to not have daily laundering of towels and linens

Level 2 -- Water Supply Shortage Alert Condition exists when the District has limited available water supplies and a consumer demand reduction of up to 20 percent is required in order to balance water demands with supplies anticipated to be available for the foreseeable future, or as otherwise determined by the District's Board of Directors. When necessary, the District's Board of Directors shall declare the existence of a Level 2 condition and implement the mandatory Level 2 water conservation measures identified herein. Additionally, if the District's Board of Directors declares a Water Shortage Emergency in the manner and on the grounds provided in California Water Code section 350 *et seq*. during a Level 2 condition, such declaration shall remain in effect during the period of emergency and until the supply of water available for distribution within the District has been replenished or augmented.

Due to multi-year drought conditions, Valley Center Municipal Water District Board acted in August of 2014 to implement **Level 2 - Water Supply Shortage Alert Condition** of its Water Supply Shortage Response Program, which impacts all Domestic and Commercial customers. Article 230 was then modified in April of 2015 to meet updated SWRCB mandatory use restrictions. On May 18, 2015, in response to actions by wholesale agency SDCWA, the VCMWD Board implemented two day per week watering restrictions for outside ornamental landscape and turf grass irrigation, effective as of June 1, 2015. Article 230 was subsequently modified again in October 2015. Mandatory Level 2 water use restrictions are currently in place to reduce water consumption at homes and businesses throughout the District. As long as the District is meeting its total potable water production reduction requirements as established by the SWRCB, it is assumed that the District will not have to implement further conservation measures, such as monthly water allocations and overuse fines for their domestic and commercial customers.

Mandatory conservation practices during a Level 2 condition include all items listed under a Level 1 condition, as well as the following:

a) Irrigating residential and commercial landscape, outside ornamental landscape or turf grass only before 10:00 a.m. and after 4:00 p.m., and for no more than ten (10) minutes per watering station for three or fewer assigned days per week. The ten (10) minute limitation provision does not apply to landscape irrigation systems using water efficient devices, including but not limited to drip/micro-irrigation systems. Watering shall also be prohibited during and for 48 hours after measurable rainfall within the District. This section does not apply to agricultural water use.

b) Use reclaimed or non-potable water for construction purposes when available and feasible.

c) Repair all leaks within seventy-two (72) hours of notification by the District unless other arrangements are made with the General Manager.

d) Generally, except for certain accounts, an allocation of 10 Hundred Cubic Feet per equivalent ¾ "- meter per month will be provided

e) If Board declares a Water Shortage Emergency there are requirements placed on existing and new annexation proposals to provide additional demand offsetting water resources.

Level 3 -- Water Supply Shortage Critical Condition may apply when the District has significantly limited available water supplies and a commensurate consumer demand reduction of greater than 20 and up to 40 percent is required to balance water demands with supplies anticipated to be available for the foreseeable future. In such a case, the District's Board of Directors may declare the existence of a Level 3 Critical Condition and implement the mandatory Level 3 conservation measures identified herein. Additionally, the District's Board of Directors shall declare a Water Shortage Emergency, upon adopting findings supporting a Water Shortage Emergency, and such declaration shall remain in effect during the period of the emergency and until the supply of water available for distribution within the District has been replenished or augmented.

During a Level 3 condition, all persons using District supplied water must comply, on a mandatory basis, with all conservation practices and measures required during Levels 1 and 2, and must also comply with the following additional mandatory conservation measures to achieve up to a 40 percent reduction in demand:

a) Limiting residential and commercial landscape irrigation to no more than two (2) assigned days per week on a schedule established by the General Manager and posted by the District. This section shall not apply to agricultural water use.

b) Watering landscaped areas, including trees and shrubs located on residential and commercial properties and not irrigated by a landscape irrigation system governed by section 230.6 (b)(1), on the same schedule set forth in item (a) above by using a bucket, hose with a positive shut-off nozzle, or low-volume non-spray irrigation.

c) Not filling or re-filling ornamental lakes or ponds, with certain exceptions.

d) Not washing vehicles except at certain commercial carwashes.

e) Repairing all leaks within forty-eight (48) hours of notification by the District unless other arrangements are made with the General Manager.

f) Using recycled or non-potable water for construction purposes.

g) If Board declares a Water Shortage Emergency there are additional limitations to new and existing development processing, annexation proposals, and meter issuances.

Level 4 -- Water Supply Shortage Emergency Condition may apply when the District has such limited available water supplies that a demand reduction of more than 40 percent is required in order to balance water demands with the supplies anticipated to be available.

During a Level 4 condition, all persons using District supplied water shall comply on a mandatory basis with all conservation practices and measures required during Level 1, Level 2, and Level 3 conditions, and shall also comply with the following additional mandatory conservation measures to achieve a reduction of more than 40 percent in demand:

1. Stopping all residential and commercial landscape, outside ornamental landscape or turf grass irrigation. This does not apply to the following use categories:
    a) Maintenance of trees and shrubs that are watered on the same schedule set forth in Article 230 Section 230.6 (b)(1) by using a bucket, hand-held hose with a positive shutoff nozzle, or low-volume non-spray irrigation;
    b) Maintenance of fire resistant landscaping necessary for fire protection as specified in writing by the Fire Marshal of the local fire protection agency having jurisdiction over the property to be irrigated;
    c) Maintenance of existing landscaping for erosion control;
    d) Maintenance of plant materials identified to be rare or essential to the well-being of rare animals;
    e) Maintenance of landscaping within active public parks and playing fields, daycare centers, school grounds, cemeteries, and golf course greens, provided that such irrigation does not exceed two (2) days per week according to the schedule established under Article 230 Section 230.6 (b)(1);
    f) Watering of livestock;
    g) All agricultural water use;
    h) Public works projects and actively irrigated environmental mitigation projects.

2. Repairing all water leaks within twenty-four (24) hours of notification by the District unless other arrangements are made with the General Manager. This applies to any person in the use of any water provided by the District, including agricultural water use.

Generally, during a Level 4 Condition all development and annexation processing shall be terminated and no new temporary or permanent water meters shall be provided.

Overriding Authority - Section 230.3 (f) of Article 230 provides that at any time any and all provisions at all response levels can be modified, augmented, modified or superseded entirely by a Governor's Executive Order, order or directive from the state of California, such as DWR or the SWRCB or by the District's wholesale suppliers, the Metropolitan Water District and the San Diego County Water Authority.

8.2 Prohibitions on End Uses

Table 8-2 provides a summary of the restrictions/prohibitions that are used at the District. The sections below provide some expansion on those restrictions, as well.

8.2.1 Landscape Irrigation

As discussed in prior section 8.1 of this chapter, landscape irrigation restrictions are on a voluntary basis under a Level 1 condition, but are on a mandatory basis for Levels 2, 3 and 4 conditions. Each subsequent condition level adds more stringent restrictions in order to achieve required water conservation levels. Sections 8.1 and Table 8-2 describes the landscape irrigation restrictions used by the District, and the restrictions are described in further detail in Article 230 of the District's Administrative Code which is included in Appendix E of this Plan.

8.2.2 Commercial, Industrial, and Institutional (CII)

The District always requires that lodging establishments offer an option to their customers to not have daily linen service. In addition, at all times restaurants may only serve water to customers upon request.

8.2.3 Water Features and Swimming Pools

At all times, re-circulated water must be used to operate ornamental fountains or other decorative water features. At a Level 3 condition, filling or re-filling of ornamental lakes or ponds, is prohibited, except to the extent needed to sustain aquatic life provided that such animals are of significant value and have been actively managed within the water feature prior to declaration of a Level 3 condition.

8.2.4 Other

Other prohibitions or restrictions on water use include the following items which are discussed in other sections of this plan and within the District's Administrative Code, Article 230, included in Appendix E of this document.

Customers must repair leaks, breaks, and malfunctions in a timely manner at all times. Automatic shutoff nozzles for hoses are required at all times. During a level 3 stage, the use of potable water for construction purposes and dust control is prohibited. At all times, the use of potable water for cleaning hard surfaces is prohibited. Vehicle washing facilities must at all times use recycled or recirculating water.

8.3 Penalties, Charges, Other Enforcement of Prohibitions

All of the restrictions and prohibitions on end uses are associated with enforcement measures as outlined below. This system is based on the progressive number of violations of

the user. In all cases, the first violation is a warning that is not accompanied by a monetary penalty to allow the user to become aware of the prohibition, and to allow the District to document that the user is aware of the prohibition.

Enforcement -- Per Article 230 of the District's Administrative Code, the following progressive enforcement actions may be imposed by the District for mandatory use restriction violations and flagrant and repeated violation of the mandatory water use reduction levels:

1st Violation – Will result in a written warning being issued;

2nd Violation – Will result in a penalty of $100.00 being placed on the water bill;

3rd Violation – Will result in a penalty of $250.00 being placed on the water bill;

4th Violation – Will result in a penalty of $500.00 being placed on the water bill, installation of a flow restriction of 5 gallons per minute for 120 hours (5 days), and the customer will be charged for the installation and removal of the flow restrictor.

5th Violation – Will result in a penalty of $1000.00 being placed on the water bill, a complaint filed with the County of San Diego District Attorney's office, flow restriction imposed and sustained to 5 gallons per minute until disposition of complaint, and the customer will be charged for the installation and removal of the flow restrictor.

For continuing violations the District may impose $500 a day starting 31 days after initial notification.

As an alternative, the district may install flow restrictors or discontinue water service at any time

8.4 Consumption Reduction Methods

8.4.1 Categories of Consumption Reductions Methods

Consumption reduction methods used by the District are presented in Table 8-3. Below is a summary of methods employed. Refer to Article 230 in Appendix E for additional information.

At Level 1, actions taken by the water agency to reduce water demand involve steps such as:

- Expanding the public information campaign;
- Offering water use surveys;
- Providing information on District's website on programs or rebates available for turf replacement, low flow plumbing fixtures, water conserving appliances and irrigation equipment, and other conservation resources;
- Ongoing program to reduce distribution system water loss.

At Level 2, the District

- Increases water waste patrols;
- Initiates restriction that only existing and new annexation proposals which can provide Net Zero Demand Increase and provide 0.5 acre feet per year of additional supply per unit of development will be considered or processing continued;
- Generally, except for certain accounts, an allocation of 10 Hundred Cubic Feet per equivalent ¾ "- meter per month will be provided.

At Level 3, the District

- Initiates that only existing annexation proposals which can provide Net Zero Demand Increase and provide 0.5 acre feet per year of additional supply per unit of development will be continued to be processed;
- All new development processing shall be subject to certain limitations;
- No new temporary or permanent potable water meters will be provided, except under specific circumstances.

At Level 4, the District will

- Terminate all development and annexation processing with associated direct water usage, and no new temporary or permanent potable water meters will be provided under any conditions until the Level condition abates, except for those meters required to protect public health and safety.

8.5 Determining Water Shortage Reductions

The mechanisms needed to determine actual water reductions operate on an ongoing basis. All water received from the SDCWA is metered and monitored. Additionally, all District customers are metered and billed monthly with computerized equipment. Each customer or customer group can be evaluated as to compliance with conservation requirements. Because the District uses Methodology 1 to measure compliance with reduction mandates, the key method used by the District to determine actual reductions in water use is the measurement of water received from SDCWA for determining gross water use.

As demonstrated in previous sections of this document, the operative provisions of the District's Water Supply Management and Shortage Condition Response Program (i.e., water shortage response, water use prohibitions, enforcement charges, and penalties for excessive usage) are currently in place as part of the Valley Center Municipal Water District's Administrative Code.

Reduction Measuring Mechanisms

Mechanism for Determining Actual Reduction	Type and Quality of Data Expected
Use Normalized or Average Water Use Baseline to Determine Reductions	Each customer will be given a schedule of monthly use targets based upon the required reduction compared to the base period usage. Usage over the amount allocated for any given month will result in the customer incurring penalty pricing for usage that month. Usage under that amount will be accumulated to possible offset over-usage in successive month period.
More Frequent Review of Production	Water production is currently monitored on a real-time basis through the district's SCADA system, and reviewed by staff on a daily basis.
More Frequent Meter Reading at Customer Location	Customer meters are read on a monthly basis which would coincide with the monthly allocation periods. Customers are given information on how to read their meter and monitor their own usage, and in recent drought programs, customers did monitor their own usage so as to avoid penalty pricing. More frequent reading by the agency would not be practical or produce useful data.
System Audit	The water system is currently audited on a monthly and annual basis, comparing metered deliveries from the SDCWA to metered deliveries to retail customers. Any abnormal readings from this audit will trigger an investigation into the cause which will help maintain the integrity of the measuring mechanisms currently in place.
Automated Sensors and Telemetry	The District currently has a full telemetry system and is converting that system over to SCADA, which does now and will contain features to provide real-time monitoring and alarms communication to on-call operators for abnormalities in reservoir fill rates, draw-down rates, and pump function, which can be associated system leaks and other malfunctions which could result in water loss.

8.6 Revenue and Expenditure Impacts

The following is a discussion of the impacts of the various measures employed in the District's water shortage contingency plan on the revenues and expenditures of the District. Some of the impacts on revenues and expenditures that have been encountered in the past or are anticipated in the future are discussed below.

In general, revenue impacts specified in the Water Shortage Contingency Plan would be offset with a combination of the following:

- An increase in water commodity and service charges
- A reduction in annual operating expenses
- Reserves currently earmarked for long range capital
- General tax fund revenues currently earmarked for future capital improvements

It is anticipated that of the above listed items, the diverting of general tax and water availability/standby revenues, would be the least disruptive. Methods to mitigate revenue/expenditure impacts are discussed below.

8.6.1 Drought Rate Structures and Surcharges

There are several elements to consider in adjusting rates for drought conditions. The following is a discussion of several of those considerations.

Prior to implementing drought rates, staff would analyze rate structure options to offset potential losses in revenue associated with reduced sales. In order to be effective, the rate structure must address the impact on water sales revenues.

Impact of Quantity of Water Sales on Revenue. Approximately 74% of the revenue collected by the District is utilized to purchase water from MWD and the SDCWA and power for pumping from SDG&E. Consequently; a reduction in water deliveries should cause a direct and commensurate reduction in those expenses. Of the $5.05 million needed to fund local operation and maintenance (O & M) costs in fiscal year (FY) 2014-2015, $2.9 million comes from non-commodity based sources such as taxes, monthly meter service charges, investment, and other revenues. Consequently, the associated reduction in commodity based revenues generated to cover local O & M costs would be offset by a combination of budget reductions, expense deferrals including some non-critical CIP projects, draws on rate stabilization and operating reserves, and rate adjustments.

Water sales revenue decreased by 11.3%, or $4,419,876, from the prior year. There was a 12.7% decrease in the volume of water sold. In 2014-15, 24,511 acre feet of water were billed compared to 28,082 acre feet in the prior year. Effective January 1, 2014, water rate increases were 5.0% for domestic and 3.2% for the San Diego County Water Authority Transitional Special Agricultural Water Rate (TSAWR). In addition, rates went up again on January 1, 2015 by 4.6% for domestic and 1.6% for TSAWR. These increases were due to increases in wholesale costs from the District's supplier. Meter service charges were $98,300 or 2.0% higher at $5,024,241 in 2014-15 compared to $4,925,941 in 2013-14. Monthly meter service charges increased 4.6% on January 1, 2015. In addition, the number of active meters increased by 84, bringing the 2014-15 count to 9,869 as compared to 9,785 in the prior year.

Impact on Customer Bill. Initially, the only impact on the customer's bill would come if the customer exceeded the allowed usage levels and incurred a violation. If the shortage extended beyond one to two full years, and all reasonable short-term spending adjustments had been exhausted and prudent draws on reserves had been made, rates would then have to be adjusted by the percentage necessary to offset short-term revenue deficits.

Impacts to Water Supplier of Higher Rates and Penalties. Given the very high percentage of cost being associated with variable wholesale water costs and power costs, the fact that nearly 57% of the revenue needed to supply local needs comes from non-commodity based sources,

and the ability of the agency to defer various CIP expenditures if need be, the short-term (1 to 2 years) impact on the agency would be very manageable. If the water supply reduction were to become a long-term condition (beyond 3 years), adjustments would be made in the operational and staffing levels as well as in the rate structure.

District staff time required for Cost Recovery Reviews. In the short-term, cost recovery would not be a significant issue, as budget adjustments and draws on reserves established specifically for such purposes would cover the short-term revenue reductions. If the conditions were long-term, more permanent adjustments in operational and staffing levels as well as the rate structure would have to reviewed and evaluated.

Impact of Quantity of Water Sales on Expenditures. In order to be effective, the rate structure must address the impact of water sales on expenditures. Given the mix of costs associated with whole water and power purchases and fixed versus variable revenues for local costs, the actual short-term impact associated with the loss of sales is minimal. As an example, for the current FY 2014-2015, of the $42.5 million in commodity based water and power revenue, only $5.05 million, or 12% is directed to cover local O & M costs, so the reduction in total commodity based revenues is not a dollar for dollar reduction in revenues needed for local, non-variable expenses. For example, a 20% reduction in total commodity related revenues, or $8.5 million, would only result in a $1 million loss in revenue for local O & M costs, which in the short-term could be offset with budget adjustments, moderate CIP deferrals and draws on existing reserves. Again, in this example, if a rate increase were implemented, it would only require a 3% overall rate increase on the remaining 80% of normal sales to offset the revenue loss needed to fund local costs.

Impact of Increased Staff/Salaries/Overtime. Existing staff would be re-assigned to perform functions required to implement and enforce mandatory use provisions and rate features needed to reduce consumption.

Increased Costs of New Supplies, Transfers or Exchanges. New supplies would be secured by wholesale suppliers and the cost would be melded into the overall wholesale cost. It is anticipated that the wholesale costs could be increased by as much 25% overall to secure additional supplies, which would be passed through to agency retail customers.

Changing the Rate Structure. Given the mix of wholesale and power costs and commodity and non-commodity based revenues for local non-variable costs, changes in rates to offset significant reductions in available water supplies would be minimal. Given the mix of wholesale water and power expenditures, non-commodity revenues needed to cover local fixed costs, availability of reserves and the flexibility to adjust CIP expenditures, the following impact would be anticipated: short –term (1 to 2 year) impacts would be non-existent to negligible; mid-term (3 year) impacts would be moderate; and long-term impacts (beyond three years) would be moderate and incremental.

8.6.2 Use of Financial Reserves

There are currently rate stabilization, operating and CIP reserves established, funded and available for use as intended. In the short term, the use of these reserves would have no impact on the rate payers or the agency. In the long term, rates would be raised to replenish reserves.

8.6.3 Other Measures

The District employs a number of other measures, beyond rates and reserve usage, as part of their Water Shortage Contingency Plan. The following outlines those key measures:

- **Reduce Overhead**. In the short-term and mid-term, overhead or local costs can be reduced by deferring non-critical CIP and major maintenance expenditures, and in the long-term by adjusting operational and staffing levels and retail water rate structures to incorporate the reality of lower retail water sales than previously anticipated.
- **Decrease Capital Expenditures**. In the short-term, there could be a decrease in the level or, if need be, even a total interruption in the expenditures for the agency's facility replacement program. Most of the District's CIP is cash funded and is for replacement of existing infrastructure. Deferral of selected, non-critical replacement projects will have little or no impact on the agency or its customers, and would only extend the master planned replacement schedule. Infrastructure for new development is funded by new development and progresses at the rate needed by new development projects. However, in the mid to long term, adjustments would be made to the retail rate structure and to the prioritization schedule to ensure that projects critical to service and system reliability were implemented.
- **Revise Planning Estimates**. If supply reductions were long-term, the District would make commensurate adjustments to its CIP schedule, anticipated Corporate Facility requirements, staffing levels, and retail rate structures based upon lower retail sales than currently anticipated. Impacts would be moderate and implemented over time.

8.7 Resolution or Ordinance

Pursuant to Assembly Bill 11 (First Extraordinary Session), amending Section 10631 of the Water Code to require an Urban Water Shortage Contingency Plan, the District prepared an amended Urban Water Management Plan, including an Urban Water Shortage Contingency Plan, which was originally adopted by the VCMWD Board of Directors on January 20, 1992 by Resolution 1305. Many of the policies contained in the Contingency Plan are policies that were adopted by the VCMWD Board of Directors in 1991, in anticipation of continued drought. The operative provisions of the contingency plan, i.e., water shortage response, water use prohibitions, enforcement charges and penalties for excessive usage, are currently in place as part of the District's Administrative Code (Articles 230 and 160) – See Appendix.

8.8 Catastrophic Supply Interruption

Because the District is entirely dependent on water from SDCWA, the reliability of the District's water supply is particularly vulnerable to shortages due to unexpected interruptions to the delivery system or prolonged periods of drought. A catastrophic water shortage occurs when a disaster, such as an earthquake, eliminates access to imported water supplies or results in insufficient water available to meet the region's needs. Catastrophic disasters include the following:

- Regional power outage
- Earthquake
- Fire/Explosion
- Medical
- Flood
- Tornado/Severe Weather
- Bomb Threat
- Hard Freeze
- Loss of normal water supply
- Hazardous material release
- Contamination of District water supplies
- Terrorist attack

8.8.1 Preparation Actions for a Catastrophe

As discussed in this chapter and below, the District has taken several actions to prepare for, and implement during, a catastrophic interruption of water supplies as outlined below. The District also coordinates with the SDCWA on regional emergency preparedness matters.

No person shall knowingly use water or permit the use of water supplied by the District for commercial, industrial, agricultural, governmental, or any other purpose in a manner contrary to any provision of the District's Administrative Code, in an amount in excess of the amounts authorized or during any period of time other than the authorized periods of time. At no time shall water be wasted or used unreasonably.

It is anticipated that the measures mentioned below and discussed throughout this Plan will result in a reduction in water use from a base period to be determined at the time of declaration of a water shortage emergency. During the emergency, the following measures shall apply except when reclaimed or private well water is used:

- All outdoor landscape irrigation is prohibited.
- Use of water for agricultural or commercial nursery purposes shall be permitted under conditions set forth by the District based upon the severity and anticipated duration of the shortage.

- Livestock watering will be permitted on an as needed basis with a prohibition against non-essential use.
- Washing of autos, trucks, trailers, boats, airplanes and other types of mobile equipment is prohibited. Such washings are exempted from these regulations where the health, safety and welfare of the public is contingent upon frequent vehicle cleaning such as garbage trucks and vehicles used to transport food and perishables.
- Filling, refilling or adding of water to swimming pools, spas, ponds and artificial lakes is prohibited.
- Watering of all golf course areas, except greens, is prohibited. Watering of parks, school grounds and recreation fields is prohibited with the exception of plant materials classified to be rare, exceptionally valuable, or essential to the well-being of rare animals.
- The use of water from fire hydrants shall be limited to firefighting or to maintain the health, safety and welfare of the public.
- Restaurants shall not serve water to their customers except when specifically requested.
- The operation of any ornamental fountain or similar structure is prohibited.
- New construction meters or permits for unmetered service will not be issued. Construction water shall not be used for earthwork or road construction purposes.
- The use of water for commercial manufacturing or processing purposes shall be permitted under conditions set forth by the District based upon the severity and anticipated duration of the shortage.

The SDCWA has the measures it would take outlined in its 2015 UWMP. Readers are referred to that document.

8.9 Minimum Supply Next Three Years

Because the District receives all of its water from SDCWA, our minimum supply estimates are based on the information provided to us by SDCWA. The estimates of the minimum supply for the next three years, based on the driest three-year historic sequence, are presented in Table 8-4. The numbers shown reflect the proportion of SDCWA's available supply that the District is projected to represent in the year 2020.

Chapter 8 Tables

Table 8-1 Retail Stages of Water Shortage Contingency Plan		
Stage	Complete Both	
	Percent Supply Reduction[1] *Numerical value as a percent*	Water Supply Condition (*Narrative description)*
Add additional rows as needed		
Level 1 - Water Supply Management Watch	Voluntary	Exists at all times and irrespective of the availability of water supplies or hydrologic conditions as set out as best management practices through public education and outreach efforts to emphasize increased public awareness of the need to use water in a beneficial and non-wasteful manner by implementing voluntary water use and conservation practices.
Level 2 - Water Supply Shortage Alert Condition	20%	Probability that supplies will not meet demands; consumers shall comply on a mandatory basis with conservation practices and measures to reduce demand by 20 percent
Level 3 - Water Supply Shortage Critical Condition	20%-40%	Supplies not meeting current demands; therefore, SDCWA has notified all member agencies that demand must be reduced by 40 percent
Level 4 - Water Supply Shortage Emergency Condition	40% and up	Major failure of a supply, storage, or distribution system; therefore, SDCWA has notified member agencies that a demand reduction of greater than 40 percent is required to balance regional demands with the anticipated supplies
[1] One stage in the Water Shortage Contingency Plan must address a water shortage of 50%.		
NOTES:		

Table 8-2 – Retail Only: Restrictions and Prohibitions on End Uses			
Stage	Restrictions and Prohibitions on End Uses ***Drop down list*** *These are the only categories that will be accepted by the WUEdata online submittal tool*	Additional Explanation or Reference (optional)	Penalty, Charge or Other Enforcement? *Drop down list*
Add additional rows as needed.			
Level 1	Landscape - Restrict or prohibit runoff from landscape irrigation	A Level 1 Condition is deemed to exist at all times. Increase in public education & outreach efforts are emphasized. Compliance is voluntary at Level 1.	No
Level 1	Landscape - Limit landscape irrigation to specific times	Compliance is voluntary at Level 1.	No
Level 2	Landscape - Restrict or prohibit runoff from landscape irrigation	Mandatory to prevent water waste from inefficient landscape irrigation.	Yes
Level 2	Landscape - Limit landscape irrigation to specific times	Mandatory to irrigate before 10:00 a.m. and after 4:00 p.m. and for 10 minutes max per watering station per day.	Yes
Level 2	Landscape - Limit landscape irrigation to specific days	Mandatory limitation of irrigation to 3 or fewer assigned days per week. Does not apply to agricultural water use.	Yes
Level 2	Landscape - Other landscape restriction or prohibition	Watering prohibited during and for 48 hours after measurable rainfall.	Yes
Level 2	CII - Lodging establishment must offer opt out of linen service	In Level 1 this is voluntary	Yes
Level 2	CII - Restaurants may only serve water upon request	In Level 1 this is voluntary	Yes
Level 2	Water Features - Restrict water use for decorative water features, such as fountains	In Level 1 this is voluntary	Yes
Level 2	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner	Leaks must be repaired within 72 hours of notification unless arrangements are made with District General Manager. In Level 1 this is voluntary at 5 days.	Yes
Level 2	Other - Require automatic shut of hoses	In Level 1 this is voluntary	Yes
Level 2	Other - Prohibit use of potable water for construction and dust control	Recycled water used if available & economically feasible.	Yes
Level 2	Other - Prohibit use of potable water for washing hard surfaces	In Level 1 this is voluntary	Yes
Level 3	Other	All items in Levels 1 & 2 plus the following:	Yes
Level 3	Landscape - Limit landscape irrigation to specific days	Mandatory limitation of irrigation to 2 or fewer assigned days per week. Does not apply to agricultural water use.	Yes
Level 3	Landscape - Other landscape restriction or prohibition	Water other landscaped areas on same assigned days as above with bucket or positive shutoff nozzle or low-volume non-spray irrigation	Yes

Level 3	Water Features - Restrict water use for decorative water features, such as fountains	Filling or re-filling or ornamental lakes or ponds prohibited except when needed to sustain aquatic life of significant value	Yes
Level 3	Other - Prohibit vehicle washing except at facilities using recycled or recirculating water	In Level 1 this is voluntary limited to using bucket with hose with shutoff nozzle or carwash.	Yes
Level 3	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner	Leaks must be repaired within 48 hours of notification unless arrangements are made with District General Manager	Yes
Level 3	Other - Prohibit use of potable water for construction and dust control	Use recycled or non-potable water for construction purposes as defined in Article 230 Section 230.2(a)(1)	
Level 4	Other	All items in Levels 1, 2 & 3 plus the following:	Yes
Level 4	Landscape - Prohibit all landscape irrigation	Prohibits all landscape irrigation except crops and landscape products of commercial growers and nurseries except as noted on page 8-4 of this Plan and in Article 230	Yes
Level 4	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner	Leaks must be repaired within 24 hours of notification unless arrangements are made with District General Manager	Yes
Level 4	Other	Additional restrictions may apply if the District's Board of Directors declares a Water Shortage Emergency	Yes
NOTES: The district may impose progressive civil penalties and restrictions for violations.			

Table 8-3 Retail Only: Stages of Water Shortage Contingency Plan - Consumption Reduction Methods		
Stage	Consumption Reduction Methods by Water Supplier ***Drop down list*** *These are the only categories that will be accepted by the WUEdata online submittal tool*	Additional Explanation or Reference *(optional)*
Add additional rows as needed		
Level 1	Expand Public Information Campaign	Level 1 is voluntary and in place at all times.
Level 1	Reduce System Water Loss	On-going program
Level 1	Provide Rebates for Plumbing Fixtures and Devices	On-going program that provides information on District website for rebates available.
Level 1	Provide Rebates for Landscape Irrigation Efficiency	On-going program that provides information on District website for rebates available.
Level 1	Offer Water Use Surveys	
Level 2 and up	Moratorium or Net Zero Demand Increase on New Connections	with Water Shortage Emergency per CWC section 350
Level 2 and up	Other	Generally, except for certain accounts, an allocation of 10 Hundred Cubic Feet per equivalent ¾ "- meter per month will be provided.
Level 2 and up	Increase Water Waste Patrols	
NOTES:		

Table 8-4 Retail: Minimum Supply Next Three Years			
	2016	2017	2018
Available Water Supply	29,773	31,497	33,088
NOTES: ~ 5.66% of Baseline numbers from SDCWA 2015 UWMP Table 11-5. Percentage is based on District's proportion of SDCWA total demand in year 2020.			

Chapter 9
DEMAND MANAGEMENT MEASURES

9.1 Demand Management Measures for Retail Agencies

9.1.1 Water Waste Prevention Ordinance

Water waste prohibition is an ongoing component of the District's water conservation program. This District has adopted its own set of water conservation regulations which is presented in Article 230 of the District's administrative code. A complete copy of Article 230, *Water Supply Management and Shortage Condition Response Program*, adopted 10/5/2015, is posted on the District's website at www.valleycenterwater.org, located under "Our District", "Documents" and "Administrative Regulations".

A complete copy of Article 230 can also be obtained by contacting the District directly at 760-735-4500. The implementation of this ordinance is in place and ongoing at all times.

The District's *Water Supply Management and Shortage Condition Response Program* is currently divided into 4 levels, including:

Level 1 -- Water Supply Management Watch Condition exists at all times, irrespective of the availability of water supplies or hydrologic conditions. During a Level 1 condition, the District increases its public education and outreach efforts to emphasize increased public awareness of the need to use water in a beneficial and non-wasteful manner and actively encourages the implementation of many voluntary water use and conservation practices, including:

- Not using water for street/sidewalk/patio cleaning
- Prompt correction of plumbing leaks
- Correction of inefficient landscape irrigation practices
- Using recycled water for ornamental fountains
- Washing cars with buckets and positive shutoff hose nozzles

Level 2 – Water Supply Shortage Alert Condition exists when the District has limited available water supplies and a commensurate consumer demand reduction of up to 20 percent is required in order to balance water demands with supplies anticipated to be available for the foreseeable future, or as otherwise determined by the District's Board of Directors. The District's Board of Directors shall declare the existence of a Level 2 and implement the mandatory Level 2 water conservation measures identified herein. Additionally, if the District's Board of Directors declares a Water Shortage Emergency in the manner and on the grounds provided in California Water Code section 350 *et seq*., during a Level 2 condition, such declaration shall remain in effect during the period of emergency and until the supply of water available for distribution within the District has been replenished or augmented.

Due to multi-year drought conditions, Valley Center Municipal Water District Board acted in August of 2014 to implement **Level 2 - Water Supply Shortage Alert Condition** of its Water Supply Shortage Response Program, which impacts all Domestic and Commercial customers. Article 230 was then modified in April of 2015 to meet updated SWRCB mandatory use restrictions. Finally, on May 18, 2015, in response to actions by wholesale agency SDCWA, the VCMWD Board implemented two day per week watering restrictions for outside ornamental landscape and turf grass irrigation, effective as of June 1, 2015. As a result of these actions, the following mandatory water use restrictions were put into place effective June 1, 2015, to reduce water consumption at homes and businesses throughout the District:

1. Stop washing down paved surfaces, including but not limited to sidewalks, driveways, parking lots, tennis courts, or patios, except when it is necessary to alleviate safety or sanitation hazards.
2. Stop water waste resulting from inefficient outside ornamental landscape or turf grass irrigation, such as runoff, low head drainage, or overspray, etc. Similarly, stop water flows onto non-targeted areas, such as adjacent property, non-irrigated areas, hardscape, roadways, or structures.
3. Irrigate residential and commercial landscape, outside ornamental landscape or turf grass Once Per Day, on Monday and Friday only before 10:00 a.m. and after 4:00 p.m.; limiting watering using sprinklers to no more than ten (10) minutes per watering station per assigned day. The ten (10) minute limitation provision does not apply to landscape irrigation systems using water efficient devices, including but not limited to: weather based controllers and/or drip/micro-irrigation systems.
4. Irrigate landscaped areas, including trees and shrubs located on residential and commercial properties but not irrigated by a landscape irrigation system on the same schedule set forth in number 3 above, by using a bucket, hand-held hose with positive shut-off nozzle, or low-volume non-spray irrigation.
5. Irrigate nursery and commercial grower's products before 10:00 a.m. and after 4:00 p.m. only. Watering is permitted at any time with a hand-held hose equipped with a positive shut-off nozzle, a bucket, or when a drip/micro-irrigation system/equipment is used. Irrigation of nursery propagation beds is permitted at any time. Watering of livestock is permitted at any time.
6. Do not irrigate outside ornamental landscape or turf grass for 48 hours after a measurable rainfall event.
7. Use re-circulated water to operate ornamental fountains.
8. Wash vehicles using a bucket and a hand-held hose with positive shut-off nozzle**,** mobile high pressure/low volume wash system, or at a commercial site that re-circulates (reclaims)

water on-site. Avoid washing during hot conditions when additional water is required due to evaporation.

9. Serve and refill water in restaurants and other food service establishments only upon request.
10. Offer guests in hotels, motels, and other commercial lodging establishments the option of not laundering towels and linens daily.
11. Use reclaimed or non-potable water for construction purposes when available and feasible.
12. Repair all leaks within seventy-two (72) hours of notification **by the District unless other arrangements are made with the General Manager.**

Level 3 -- Water Supply Shortage Critical Condition may apply when the District has significantly limited available water supplies and a commensurate consumer demand reduction of up to 40 percent is required in order to balance water demands with supplies anticipated to be available for the foreseeable future. In such a case, the District's Board of Directors may declare the existence of a Level 3 Critical Condition and implement the mandatory Level 3 conservation measures identified herein. Additionally, if the District's Board of Directors declares a Water Shortage Emergency, such declaration shall remain in effect during the period of the emergency and until the supply of water available for distribution within the District has been replenished or augmented.

During a Level 3 all persons using District supplied water shall comply, on a mandatory basis, with conservation practices and measures required during Level 1, and Level 2, and shall also comply with the following additional mandatory conservation measures to achieve up to a 40 percent reduction in demand:

1. Limiting residential and commercial landscape irrigation to no more than two (2) assigned days per week on a schedule established by the General Manager and posted by the District. This section shall not apply to commercial growers or nurseries.
2. Watering landscaped areas, including trees and shrubs located on residential and commercial properties, and not irrigated by a landscape irrigation system governed by section 230.6 (b)(1), on the same schedule set forth in section 230.6 (b)(1) by using a bucket, hand-held hose with a positive shut-off nozzle, or low-volume non- spray irrigation.
3. Not filling or re-filling ornamental lakes or ponds, except to the extent needed to sustain aquatic life, provided that such animals are of significant value and have been actively managed within the water feature prior to declaration of a water supply shortage response level under this Article.
4. Not washing vehicles except at commercial carwashes that re- circulate water, or by high pressure/low volume wash systems.

5. Repairing all leaks within forty-eight (48) hours of notification by the District unless other arrangements are made with the General Manager.

6. Using recycled or non-potable water for construction purposes as defined in Section 230.2 (a) (1) of this Article.

Additional restrictions may also apply if the District's Board of Directors declares a Water Shortage Emergency in the manner and on the grounds provided in the California Water Code Section 350, *et seq.,* during a Level 3 Condition.

Level 4 -- Water Supply Shortage Emergency Condition may apply when the District has such limited available water supplies that a demand reduction of more than 40 percent is required in order to balance water demands with the supplies anticipated to be available. During a Level 4 condition, all persons using District supplied water shall comply on a mandatory basis with conservation practices and measures required during Level 1, Level 2 and Level 3 and shall also comply with the following additional mandatory conservation measures to achieve a reduction of more than 40 percent in demand:

1. Stopping all landscape irrigation, except crops and landscape products of commercial growers and nurseries. This restriction shall not apply to the following categories of use unless the District has determined that reclaimed water is available and may be lawfully applied to the use.

   A. Maintenance of trees and shrubs that are watered on the same schedule set forth in section 230.6 (b)(1) by using a bucket, hand-held hose with a positive shut-off nozzle, or low-volume non-spray irrigation;

   B. Maintenance of existing landscaping necessary for fire protection as specified by the Fire Marshal of the local fire protection agency having jurisdiction over the property to be irrigated;

   C. Maintenance of existing landscaping for erosion control;

   D. Maintenance of plant materials identified to be rare or essential to the well-being of rare animals;

   E. Maintenance of landscaping within active public parks and playing fields, day care centers, school grounds, cemeteries, and golf course greens, provided that such irrigation does not exceed two (2) days per week according to the schedule established under section 230.6 (b)(1);

   F. Watering of livestock; and

   G. Public works projects and actively irrigated environmental mitigation projects.

2. Repairing all water leaks within twenty-four (24) hours of notification by the District unless other arrangements are made with the General Manager.

Additional restrictions may also apply if the District's Board of Directors declares a Water Shortage Emergency in the manner and on the grounds provided in the California Water Code Section 350, *et seq.,* during a Level 4 Condition.

Overriding Authority - Section 230.3 (f) of Article 230 provides that at any time any and all provisions at all response levels can be modified, augmented, modified or superseded entirely by a Governor's Executive Order, order or directive from the state of California, such as DWR or the SWRCB or by the District's wholesale suppliers, the Metropolitan Water District and the San Diego County Water Authority.

Enforcement -- Per Article 230 of the District's Administrative Code, the following progressive enforcement actions may be imposed by the District for mandatory use restriction violations and flagrant and repeated violation of the mandatory water use reduction levels:

1st Violation – Will result in a written warning being issued;

2nd Violation – Will result in a penalty of $100.00 being placed on the water bill;

3rd Violation – Will result in a penalty of $250.00 being placed on the water bill;

4th Violation – Will result in a penalty of $500.00 being placed on the water bill, installation of a flow restriction of 5 gallons per minute for 120 hours (5 days), and the customer will be charged for the installation and removal of the flow restrictor.

5th Violation – Will result in a penalty of $1000.00 being placed on the water bill, a complaint filed with the County of San Diego District Attorney's office, flow restriction imposed and sustained to 5 gallons per minute until disposition of complaint, and the customer will be charged for the installation and removal of the flow restrictor.

9.1.2 Metering

Valley Center Municipal Water District is fully metered, and all District customers receive water through metered connections that bill by volume of usage.

Meters are calibrated/tested when they appear to be under or over registering to either District staff or the customer. Given the new drought allocations being based on past usage, customers are more motivated to report under-registering meters. The District also performs random testing of meters, and any meter that performs outside an accuracy range of 98%-102% is immediately replaced. Meters are also replaced when they become stuck.

Approximately six years ago, all of the meters in the District were replaced in conjunction with the implementation of an Automatic Meter Reading (AMR) system. This system allows gathering of data while driving. The District is in the process of investigating the cost/benefit of a partial or full AMI system.

The District has not conducted a feasibility study to assess the merits of a program to provide incentives to switch mixed-use accounts to dedicated landscape meters.

9.1.3 Conservation Pricing

The District currently implements non-volumetric sewer rates and uniform water rates for all of its customers. Uniform quantity charge is considered to meet the definition of conservation pricing. The implementation of this pricing is ongoing.

9.1.4 Public Education and Outreach

Public information is an ongoing component of the District's water conservation program. Literature and brochures on water conservation and efficient landscapes are free to customers and are readily available. The information is geared towards all age groups and includes children's coloring books on water-wise use, water cycle, and the history and source of our water supply. Extensive information on conservation practices is available on the District's web page along with links to conservation programs and a library of appropriate planting for the region. Water workshops have been offered to customers in which participants receive hands-on experience and lessons on landscape sprinkler systems and landscape maintenance. A display of xeriscaping principles and water efficient plants is located in the District's main lobby. The District's public information program is an ongoing, annual program.

School education is also an ongoing component of the District's water conservation program. The District uses SDCWA resources to implement this aspect of our program along with the Water Education Program incorporated into the 6th grade Science and Geography curricula and Water Education Program/Poster Contest for the 4th grade. Grade-appropriate materials are distributed to Grades K through 8 and also to the high school. The District began implementing this school education program in 1992 and it continues as an ongoing annual program.

9.1.5 Programs to Assess and Manage Distribution System Real Loss

The District's system water audit, leak detection and repair program is ongoing and focuses on high probability leak areas. The District's pipelines are monitored for leaks with the use of a sophisticated leak detection listening device. Leaks can be detected early and are repaired in a timely manner. In addition, throughout the workday, the District's pipelines are traveled to access facilities and any sign of a potential leak is reported and further investigated. All meters are read on a monthly basis. Leak detection is on-going. Table 4-4 in Chapter 4 of this Urban Water Management Plan documents the total system losses. Unaccounted for water ranges between 5% and 6%, which is well within AWWA standards.

9.1.6 Water Conservation Program Coordination and Staffing Support

These efforts are documented in the next section which outlines the Best Management Practices (BMPs) being implemented in conjunction with the CUWCC.

9.1.7 Other Demand Management Measures – Water Conservation Best Management Practices

Water conservation, or demand management, continues to be a significant part of regional water resource planning strategies in San Diego County. The District is committed to supporting these regional water conservation activities, and in many cases, provides direct or indirect financial assistance. In addition, the District implements local water conservation management measures to augment and complement these regional programs.

The unpredictable water supply and ever increasing demand on California's complex water resources have resulted in a coordinated effort by the DWR, water utilities, environmental organizations, and other interested groups to develop a list of urban BMPs for conserving water. This consensus-building effort resulted in a Memorandum of Understanding (MOU) Regarding Urban Water Conservation in California, which formalizes an agreement to implement these BMPs and makes a cooperative effort to reduce the consumption of California's water resources. The BMPs as defined by the MOU are presented in Table 9-1. The BMPs as defined in the MOU are generally recognized as standard definitions of water conservation measures. The MOU is administered by the CUWCC. The District is currently an MOU signatory.

The MOU requires that a water utility implement only the BMPs that are economically feasible. If a BMP is not economically feasible, the utility may request an economic exemption for that BMP.

The District conducts an ongoing water conservation program. A description of each BMP that is currently being implemented or scheduled for implementation, a schedule of implementation, and a method to evaluate effectiveness is provided in this section. The existing conservation savings are also discussed.

BMP 1. Utility Operations

BMP 1.1. Operations Practices

Conservation Coordinator

A conservation coordinator is an on-going component of the District's water conservation program. The conservation coordinator is responsible for implementing and monitoring the District's water conservation activities. A Conservation Coordinator has been selected and is in place. The District's Conservation Coordinator is Trish Garcia. The implementation of this BMP program has promoted and administered conservation programs since 1991 and is ongoing.

Water Waste Prohibition

Water waste prohibition is an ongoing component of the District's water conservation program. This District has adopted its own set of water conservation regulations.

A copy of the District's regulations is provided in Appendix E. Chapter 7 of this plan provides a description of the prohibited water uses in the District's water waste regulations. The implementation of this BMP is ongoing.

Wholesale Agency Assistance Programs

This BMP is not applicable to the District because the District is not a wholesale agency.

BMP 1.2. Water Loss Control

A system water audit, leak detection and repair program consists of on-going leak detection and repair within the system, focused on the high probability leak areas. The District's pipelines are monitored for leaks with the use of a sophisticated leak detection listening device. Leaks can be detected early and are repaired in a timely manner. In addition, throughout the workday, the District's pipelines are traveled to access facilities and any sign of a potential leak is reported and further investigated. All meters are read on a monthly basis. Leak detection is on-going.

BMP 1.3. Metering with Commodity Rates

All District customers receive water through metered connections that bill by volume of usage. The District has not conducted a feasibility study to assess the merits of a program to provide incentives to switch mixed-use accounts to dedicated landscape meters.

BMP 1.4. Retail Conservation Pricing

The District currently implements non-volumetric sewer rates and uniform water rates for all of its customers. The uniform quantity charge is considered to meet the definition of conservation pricing. The implementation of this BMP is ongoing.

BMP 2. Educational

BMP 2.1. Public Information

Public information is an ongoing component of the District's water conservation program. Literature and brochures on water conservation and efficient landscapes are free to customers and are readily available. The information is geared towards all age groups and includes children's coloring books on water-wise use, the water cycle, and the history and source of our water supply. Extensive information on conservation practices is available on the District's web page along with links to conservation programs and a library of appropriate planting for the region. Water workshops have been offered to customers in which participants receive hands-on experience and lessons on landscape sprinkler systems and landscape maintenance. A

display of xeriscaping principles and water efficient plants is located in the District's main lobby. The District's public information program is an ongoing, annual program.

BMP 2.2. School Education

School education is an ongoing component of the District's water conservation program. The District uses SDCWA resources to implement this BMP along with the Water Education Program incorporated into the 6th grade Science and Geography curriculums and Water Education Program/Poster Contest for the 4th grade. Grade-appropriate materials are distributed to Grades K through 8th and high school. The District's school education program is an ongoing, annual program. The District began implementing this program in the year 1992.

BMP 3. Residential

Residential Assistance

Water Survey Programs for Single-Family Residential and Multi-Family Residential Connections (Indoor) and Residential Plumbing Retrofit

Water survey programs for single-family residential and multi-family residential connections consist of annual water audits, water use reviews, and surveys of past program participants. Audits are conducted by trained auditors and include installation of low flow devices. Audits identify water-use problems, recommend repairs, and, when appropriate, meter reading. Customers are provided with information packets that include the evaluation results and water savings recommendations. The District's targeting and marketing strategy consists of community outreach events approximately three times a year at which the District has sign-ups for the Water Wise program. This survey program is conducted annually and began in 1995.

Plumbing retrofit of existing residential accounts consists of providing low flow showerheads, faucet aerators, and toilet leak detection tablets to customers. The District works with local programs and businesses to offer free water conservation information and materials to residents. There is not an enforceable ordinance in effect in the service area requiring the replacement of high-flow showerheads and other water use fixtures with their low-flow counterparts. The District has reached 75 percent saturation. It is estimated that 90 percent of single-family households have low-flow showerheads. The low-flow device distribution program started in July 1996.

Landscape Water Survey

Water Survey Programs for Single-Family Residential and Multi-Family Residential Connections (Outdoor)

Similar to the indoor water survey programs, water survey programs for single-family residential and multi-family residential outdoor use consist of annual water audits, water use reviews, and surveys of past program participants. Audits identify water-use problems, recommend repairs,

provide instruction in landscape principles, irrigation timer use and, when appropriate, meter reading. Customers are provided with information packets that include the evaluation results and water savings recommendations. This survey program is conducted annually and began in 1995.

High-Efficiency Clothes Washers

The District participates and promotes the High-Efficiency Washing Machine voucher program funded by the District and its wholesale water suppliers, MWD and SDCWA. Customers can obtain a voucher with a value of $125.00 off the purchase price of a High-Efficiency Washer. The voucher is for a point of purchase discount. San Diego Gas and Electric, a local energy provider, offers rebates upon the purchase of selected high-efficiency washing machine models available on a first-come, first-served basis.

Water Sense Standard (WSS) Toilets

The District participates in a County-wide program in which participating residential customers are offered a voucher redeemable with local plumbing dealers for up to $75 off the purchase price of an ultra-low flush toilet. The voucher is for a point-of-purchase discount only and eligibility requires replacement of an existing toilet that is 3.5 gallons per flush or more. No after-purchase rebates are available. The program is conducted annually.

Water Sense Standard (WSS) for New Residential Development

BMP 4. Commercial Industrial Institutional (CII)

The District has identified and ranked commercial, industrial, and institutional customers according to use. The program does not include surveys of past program participants to determine if audit recommendations were implemented. This program does not include incentives related to the use of efficient water-use technologies. The District tracks CII program interventions and water savings, and documents and maintains records on how savings are realized. This program is conducted annually.

BMP 5. Large Landscape Conservation Programs and Incentives

Potential customers are pre-screened by review of water usage data records as compared to typical patterns of water usage. Customers that exhibit unusually high water usage relative to the size of the property are sent a letter and a program brochure, inviting them to participate in the program. Surveys include an irrigation system check, distribution uniformity analysis, review or development of an irrigation schedule, measurement of the landscape area, measurement of the total irrigable area, and a report and information provided for the customer. All customers receive an offer for a follow-up survey.

The District does offer financial incentives such as vouchers. The District also provides landscape water use efficiency information to new customers and customers changing services. Workshops are held on irrigation management and Water-Wise Plant identification free of charge. Water-wise plants and the xeriscaping principles are promoted through lobby displays, brochures, and at community events. The District does have water-efficient irrigated landscaping at the District facilities. This program began in 1990 and is conducted annually.

Additional Issues

This section describes additional issues required to be addressed by the Urban Water Management Planning Act. Non-economic factors, including environmental, social, health, customer impacts, and technological are not thought to be significant in deciding which BMPs to implement. There are no planned water supply projects that would provide water at a higher unit cost. The District has the legal authority to implement the BMPs.

9.2 Implementation Over the Past Five Years

The District has exceeded not only the target flow reduction for 2015, but has also exceeded even the target 20% water use reduction for 2020 by reducing water use over 49%. While we put forth efforts on many fronts to reduce water use, because our District primarily serves agriculture, the increases in basic water prices have likely had the greatest impact to drive down water use.

9.2.1 Ongoing BMPs

The following BMP's are ongoing and the impact of these BMPs are difficult to quantify: water waste prevention ordinance (which have been applied and at various levels depending on water supply conditions); metering; conservation pricing in the form of uniform quantity charge; public education and outreach; water distribution system water loss program (which has limited water loss to between 5% and 6% annually, and water conservation program coordination and staffing. Regionally, the SDCWA carries out separate programs which will not be discussed here to avoid double counting DMM implementation, as recommended in the UWMP guidelines.

9.3 Planned Implementation to Achieve Water Use Targets

As stated previously, the District has exceeded not only the target flow reduction for 2015, but also the exceeded even the target 20% water use reduction for 2020 by reducing water use over 49%. The District is planning to continue with the current on-going activities described above which have resulted in our exceeding our targets ahead of their deadlines.

Table 9-1. Water Conservation Demand Management Measures Listed in MOU				
Revised (Current) CUWCC BMP Category			Former CUWCC BMP Name	
Category	BMP No.	BMP Name	BMP No.	BMP Name
Foundational BMPs	BMP 1	Utility Operations		
	BMP 1.1	Operations Practices		
		Conservation Coordinator	12	Conservation Coordinator
		Water Waste Prevention	13	Water Waste Prohibition
		Wholesale Agency Assistance	10	Wholesale Agency Assistance Programs
	BMP 1.2	Water Loss Control	3	System Water Audits, Leak Detection, and Repair
	BMP 1.3	Metering with Commodity Rates	4	Metering with Commodity Rates for all New Connections and Retrofit of Existing Connections
	BMP 1.4	Retail Conservation Pricing	11	Conservation Pricing
	BMP 2	Educational		
	BMP 2.1	Public Information	7	Public Education Programs
	BMP 2.2	School Education	8	School Education Programs
Programmatic BMPs	BMP 3	Residential		
		Residential Assistance	1 & 2	Water Survey Programs for Single-Family and Multi-Family Residential Customer (Indoor) and Residential Plumbing Retrofit
		Landscape Water Survey	1	Water Survey Programs for Single-Family and Multi-Family Residential Customer (Outdoor)
		High-Efficiency Clothes Washers	6	High-Efficiency Washing Machine Rebate Programs
		Water Sense Standard (WSS) Toilets	14	Residential ULFT Replacement Programs
		Water Sense Standard (WSS) for New Residential Development	(new)	
	BMP 4	Commercial Industrial Institutional (CII)	9	Conservation Programs for Commercial, Industrial, and Institutional Accounts
	BMP 5	Landscape	5	Large Landscape Conservation Programs and Incentives

Chapter 10
PLAN ADOPTION, SUBMITTAL, AND IMPLEMENTATION

This chapter discusses the steps taken to prepare the District's 2015 UWMP, hold a public hearing, adopt and submit the 2015 UWMP, and implement the adopted Plan.

10.1. Inclusion of all 2015 Data

It is required that all 2015 Urban Water Management Plans include the water use and planning data for the entire year of 2015. However, if an agency is reporting on a fiscal year basis, they may complete their 2015 UWMP at the end of their fiscal year. Valley Center MWD has included water use and planning data for fiscal year 2014-2015 within this Plan.

10.2. Notice of Public Hearing

To provide an opportunity for the public to provide input on the 2015 UWMP, agencies are required to hold a public hearing prior to adopting their 2015 UWMP and consider all public input received. Notices must be provided to any city or county within which the agency provides water supplies, as well as to the public served by the agency.

10.2.1. Notice to Cities and Counties

First, at least 60 days prior to the public hearing on the plan, notice must be provided to any city or county within which an agency provides water supplies that the agency will be reviewing the Urban Water Management Plan and considering amendments or changes to the Plan. A 60-day notification was provided to the agencies presented in Table 10-1 at the end of this chapter on March 30, 2016. This notice was also sent to other agencies including: Rincon del Diablo MWD, San Pasqual Band of Mission Indians, Rainbow MWD, Vallecitos MWD, and SDCWA.

Second, a Notice of Public Hearing must be sent out which includes the time and place of the Public Hearing on the Plan. A Notice of Public Hearing was provided to the agencies presented in Table 10-1 at the end of this chapter. This notice included the location where the UWMP could be viewed, the UWMP revision schedule, and the contact information of the UWMP preparer.

10.2.2. Notice to the Public

Prior to adopting the Plan, the urban water supplier must make the plan available for public inspection and provide notice of the time and place of the hearing, as well as the location where the plan is available for public inspection. As prescribed in Government Code 6066, a Notice of Public Hearing was published once a week for two successive weeks in the local *Valley Center Roadrunner* newspaper to notify the public of the public hearing. Copies of the Plan were made available for public inspection at the District's Administrative Offices located at 29300 Valley Center Road, Valley Center, California, and on the District's website at www.vcmwd.org. A copy of the Notice of Public Hearing, outreach documents, and published public comments regarding the Plan are also included in Appendix A of this document.

As required by the Act, the District made the Plan available for public inspection and held a public hearing prior to adopting the Plan. This hearing provided an opportunity for other agencies and the District's customers to learn about the water supply situation and the plans for providing a reliable, safe, high-quality water supply for the future, and to ask questions regarding the current situation and the viability of future plans.

10.3. Public Hearing and Adoption

A public hearing was held on June 27, 2016. At this hearing, the District provided information on their baseline values, water use targets, and implementation plan as required in the Water Conservation Act of 2009. The 2015 Urban Water Management Plan was adopted by the District's Board of Directors on June 27, 2016. A copy of the adopted resolution is provided in Appendix B of this document. The adopted Plan will be provided to DWR, the California State Library, and any city and county within which the District provides water supplies within 30 days of adoption.

10.4. Plan Submittal

The District's adopted 2015 Urban Water Management Plan will be submitted electronically to DWR through WUEdata, DWR's online submittal tool, within 30 days of adoption and by July 1, 2016. A CD or hardcopy of the adopted Plan will also be provided to the California State Library, at the address below:

California State Library
Government Publications Section
P.O. Box 942837
Sacramento, CA 94237-0001
Attn: Coordinator, Urban Water Management Plans

10.5. Public Availability

Within 30 days of submitting to DWR, the final Adopted Plan will be made available to the public during normal business hours at the administrative offices of the Valley Center Municipal Water District's office located at 29300 Valley Center Road, Valley Center, California, and on the District's website at www.vcmwd.org

10.6. Amending an Adopted UWMP

Should the adopted Urban Water Management Plan be amended, the same processes for notification, public hearing, adoption, and submittal as described herein will also be followed for the amended plan.

Chapter 10 Table

Table 10-1 Retail: Notification to Cities and Counties		
City Name	60 Day Notice	Notice of Public Hearing
Add additional rows as needed		
Escondido	☑	☑
	☐	☐
	☐	☐
County Name *Drop Down List*	60 Day Notice	Notice of Public Hearing
Add additional rows as needed		
San Diego County	☑	☑
	☐	☐
	☐	☐
NOTES: Public Hearing June 27, 2016		

Appendix A

NOTICE OF PUBLIC HEARING AND PUBLISHED PUBLIC COMMENTS

Valley ROADRUNNER

P.O. Box 1529
29115 Valley Center Road, Suite L.
Valley Center, CA 92082
(760) 749-1112
FAX (760) 359-5815

Valley Center Municipal Water District
PO BOX 67
Valley Center, CA 92082

PROOF OF PUBLICATION

State of California
County of San Diego

I am a citizen of the United States and a resident of the County aforesaid: I am over the age of 18 years, and not a party to or interested in the above-entitled matter. I am the publisher of the Valley Roadrunner, a newspaper of general circulation, published weekly in the community of Valley Center, County of San Diego, and which newspaper has been adjudged a newspaper of general circulation by the Superior Court of the County of San Diego, State of California, under the date of April 29, 1977, Case number N 8284; that the notice, of which the annexed is a printed copy, has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to wit:

Published in: **VALLEY ROADRUNNER**
Run date – MAY 26 & June 02, 2016

Executed on: **June 02, 2016**

At Valley Center, CA

I certify (or declare) under penalty of perjury that the foregoing is true and correct.

Signature

NOTICE OF PUBLIC HEARING

Notice is hereby given that the Board of Directors of the Valley Center Municipal Water District will hold a public hearing to receive input on its Draft 2015 Urban Water Management Plan Update at the regularly scheduled Board meeting on Monday, June 27, 2016, beginning at 2:00 p.m. in the Board Room of the Valley Center Municipal Water District's offices at 29300 Valley Center Road, Valley Center, California.

The 2015 Urban Water Management Plan Update is prepared in response to the California Urban Water Management Planning Act included in the State Water Code which requires that each urban water supplier providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000 acre feet of water annually, shall prepare, update and adopt an Urban Water Management Plan at least once every five years and submit the Plan to the California Department of Water Resources.

Copies of the Plan will be available for review at the District office and on the District website (www.vcmwd.org) beginning May 27, 2016. Members of the public are invited to attend the hearing and present their views on the Valley Center Municipal Water District's Draft "2015 Urban Water Management Plan Update". Written comments should be led with the Engineering Department prior to the hearing at 29300 Valley Center Road, P.O. Box 67, Valley Center, California 92082.

Wally Grabbe, PE
District Engineer

May 26, 2016 and June 2, 2016

Appendix B

ADOPTED RESOLUTION

RESOLUTION NO. 2016-23

RESOLUTION OF THE BOARD OF DIRECTORS OF THE VALLEY CENTER MUNICIPAL WATER DISTRICT ADOPTING THE URBAN WATER MANAGEMENT PLAN, 2015 UPDATE

WHEREAS, California Water Code Section 10610 etc. seq., known as the Urban Water Management Planning Act (Act), mandates that every urban water supplier providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000 acre feet of water annually, prepare an urban water management plan (Plan), the primary objective of which is to plan for the conservation and efficient use of water;

WHEREAS, the Act states that urban water suppliers should make every effort to assure the appropriate level of reliability in its water service is sufficient to meet the needs of its various categories of customers during normal, dry and multiple dry years;

WHEREAS, water conservation is recognized as an integral part of all water programs, and the proper and cost effective conservation of our water resources is essential to insuring adequate water supplies now and in the future;

WHEREAS, the Valley Center Municipal Water District completed, approved and adopted its first Urban Water Management Plan on December 16, 1985, and subsequently it's Urban Water Shortage Contingency Plan. Urban Water Management Plan Updates were approved and adopted by the District for every five years thereafter;

WHEREAS, the Plan shall be reviewed at least once every five years, and that the Valley Center Municipal Water District shall make any amendments or changes to its Plan which are indicated by the review;

WHEREAS, the 2015 Plan Update, adopted after public review and hearing, will be filed with the California Department of Water Resources by the July 1, 2016 due date; and

WHEREAS, the Valley Center Municipal Water District has completed an Urban Water Management Plan, 2015 Update pursuant to the requirements of California Water Code Section 10610 etc. seq., which has been circulated for public review and a noticed public hearing regarding said 2015 Plan was held by the Valley Center Municipal Water District on June 27, 2016.

NOW, THEREFORE, BE IT RESOLVED AND ORDERED, that the Board of Directors of the Valley Center Municipal Water District approves and adopts the "Urban Water Management Plan, 2015 Update" for the Valley Center Municipal Water District.

PASSED AND ADOPTED this 27th day of June 2016, by the following vote, to wit:

AYES: Directors Broomell, Polito, Aleshire, Haskell and Ferro

NOES: None

ABSENT: None

ABSTAIN: None

Gary A. Broomell
Board President/Chairperson

ATTEST:

Christine M. Johnson
Secretary

Appendix C

VCMWD 2014 Water Quality Report

Your Water Agency's Source of Supply

100% of the water supply for Valley Center Municipal Water District (VCMWD), your retail water supplier, is imported by the Metropolitan Water District of Southern California (MWD) and the San Diego County Water Authority (SDCWA) through aqueduct facilities owned and operated by MWD and the SDCWA.

MWD brings water from the Colorado River (CR) via the 242 mile long Colorado River Aqueduct (CRA) and the Sacramento-San Joaquin Delta through the 444 mile long State Water Project (SWP). On its way to your home, business or farm, water then travels through the massive open and closed aqueducts, storage and treatment systems owned and operated by both MWD and the SDCWA. CR supplies secured by the SDCWA through the IID Transfer and All-American and Coachella Canal Lining Projects are blended with MWD's supplies and then transported to Southern California.

Finally, all of the supply coming to VCMWD is treated at the MWD Skinner Filtration Plant located in Western Riverside County, and then bought into San Diego by the five enclosed SDCWA aqueducts and delivered to VCMWD's water storage and distribution system through seven aqueduct connections.

In December 2002, Metropolitan Water District of Southern California completed its source water assessment of its Colorado River and State Water Project supplies. Colorado River supplies are considered to be most vulnerable to recreation, urban/storm water runoff, increasing urbanization in the watershed and wastewater. State Water Project supplies are considered to be most vulnerable to urban/storm water runoff, wildlife, agriculture, recreation and wastewater. A copy of the assessment can be obtained by contacting Metropolitan by phone at (213) 217-6850.

After treatment at the Skinner Filtration Plant, the water flows into five aqueduct pipelines and is delivered to the Valley Center Municipal Water District. Once in the Valley Center system, which includes 340 miles of water mains, 43 reservoirs, and 28 pumping stations; the water supply remains in pressurized pipelines and covered reservoirs, further protecting its quality.

Valley Center Municipal Water District's Water Sources

VALLEY CENTER MUNICIPAL WATER DISTRICT

29300 Valley Center Road
P. O. Box 67
Valley Center, CA 92082
(760) 735-4500
Fax (760) 749-6478
email: vcwater@vcmwd.org
web: www.valleycenterwater.org

VALLEY CENTER MUNICIPAL WATER DISTRICT

2014 WATER QUALITY REPORT

Consumer Confidence Report

Annual Report on Water Quality for 2014

Valley Center Municipal Water District 2014 Water Quality Report

Este informe contiene información muy importante sobre su agua. Tradúzcalo ó hable con alguien que lo entienda bien.

Valley Center Municipal Water District is committed to supplying safe water that meets or surpasses state and federal safety standards and achieves the highest standards of customer satisfaction. ***The U.S. Environmental Protection Agency (EPA) and the California State Water Resources Control Board (SWRCB) Division of Drinking Water prescribe regulations that limit the amount of certain contaminants in water provided by public water systems and require the publication and distribution of this report to our customers and the community we serve.***

We are pleased to report that the quality of water delivered by the Valley Center Municipal Water District meets or exceeds all State and Federal standards. ***Your tap water is safe to drink.***

This report is a snapshot of the water quality of the Valley Center M.W.D.'s water deliveries in calendar year 2014. Included are details about where the water comes from, what it contains, and how it compares to the SWRCB standards. If you are interested in more information about your water supply or water supplier, please feel free to contact our administrative offices at 760-735-4500, reach us on our website: www.valleycenterwater.org (which includes links to Metropolitan and the San Diego County Water Authority) or attend one of our Board meetings on the 1st and 3rd Mondays of each month, at 2:00 p.m. Meetings are held at the District Offices, 29300 Valley Center Rd., Valley Center, and are open to the public.

For specific questions or information about water quality, please contact our Field Operations Department and ask for Thad Klimas or Greg Hoyle.

Water Quality Information

Generally, the sources of drinking water (both tap and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

- ***Microbial contaminants,*** such as viruses and bacteria that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- ***Inorganic contaminants,*** such as salts and metals, that can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- ***Lead,*** if present and at elevated levels, can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The Valley Center Municipal Water District is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.
- ***Pesticides and herbicides,*** which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.
- ***Organic chemical contaminants,*** including synthetic and volatile organic chemicals that are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.
- ***Radioactive contaminants,*** which can be naturally-occurring or be the result of oil and gas production and mining activities.

Are there any precautions the public should consider?

As previously stated, the water supplied by the Valley Center Municipal Water District meets or exceeds all State and Federal safety standards and is safe to drink. However, all drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. In order to ensure that tap water is safe to drink, EPA and SWRCB prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. ***More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline (1-800-426-4791) or by viewing the USEPA's website at www.epa.gov/safewater.***

SWRCB regulations also establish limits for contaminants in bottled water that must provide the same protection for public health.

Some people may be more vulnerable to contaminants in drinking water than the general population. ***Immunocompromised persons*** such as persons with ***cancer undergoing chemotherapy,*** persons who have undergone ***organ transplants***, people with ***HIV/AIDS*** or other ***immune system disorders***, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. ***EPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).***

What is your water supplier doing to keep the tap water safe?

Under the guidance of the SWRCB, the Valley Center Municipal Water District regularly conducts over 400 tests from 21 strategically positioned sample points to guarantee a ***safe level of disinfectant residual*** and the ***bacteriological safety*** of your water supply. We also monitor our supply for the levels of ***Trihalomethanes*** and ***Haloacetic Acids***, which are disinfection byproducts and are suspected to be human carcinogens. Finally, the District administers an active and aggressive **Backflow Prevention Program**, which protects our water supply from the possibility of cross-contamination coming from the customer's side of the meter.

In addition to our water quality efforts, the Metropolitan Water District performs over 300,000 analyses each year to monitor over 115 contaminants and characteristics of its supplies, including tests for water clarity (Turbidity), organic chemicals (pesticides, PCB's), volatile organic compounds, inorganic compounds, disinfection byproducts (DBP's), disinfectant residuals and radionuclides. Metropolitan also monitors for contaminants that are not yet regulated (i.e., assigned a safety limit) to help EPA and SWRCB to determine where certain contaminants occur and whether the contaminants need to be regulated in the future.

PARAMETER (a)	Units	MCL [MRDL]	PHG (MCLG) [MRDLG]	Test Results Range	Test Results Average	Major Sources in Drinking Water
Percent State Project Water	%	NA	NA	0-55	18	
PRIMARY STANDARDS – MANDATORY HEALTH RELATED STANDARDS						
CLARITY						
Combined Filter Effluent	NTU	TT = 1	NA	Highest	0.09	Soil runoff
Turbidity	%	TT(b)	NA	% <0.3	100%	Soil runoff
CONTAMINANTS MONITORED BUT NOT DETECTED						
Total Coliform Bacteria (c) (m)	%	5.0	0	NA	0	Naturally present in the environment
Fecal Coliform Bacteria and E. Coli (c) (m)	CFU/mL	0	0	0	0	Human and animal fecal waste
Arsenic	ppb	10	0.004	ND	ND	Natural deposits erosion, glass and electronics production wastes.
Nitrate (as N) (i)	ppm	10	10	ND	ND	Runoff and leaching from fertilizer use; sewage; natural deposit erosion
Chromium VI (j)	ppb	10	0.02	ND	ND	Industrial waste discharge; could be naturally present as well
INORGANIC CHEMICALS						
Copper (f) Triennial 2013	ppm	AL = 1.3	0.3	90th Percentile	0.104	Internal corrosion of household plumbing; natural deposit erosion
Fluoride Treatment-related (l)	ppm	2.0	1	0.7-0.9	0.8	Water additive for dental health
Lead (f) Triennial (2013)	ppb	AL = 15	0.2	90th Percentile	6	Internal corrosion of household plumbing; natural deposit erosion
RADIOLOGICAL						
Uranium	pCi/L	20	0.43	1-2	2	Erosion of natural deposits
DISINFECTION BY-PRODUCTS, DISINFECTANT RESIDUALS, AND DISINFECTION BY-PRODUCTS PRECURSERS						
Total Trihalomethanes (e)	ppb	80	NA	7.5-45.1	15.3	By-product of drinking water chlorination
Haloacetic Acid (d)	ppb	60	NA	3.3-18.3	9.2	By-product of drinking water chlorination
Total Chlorine Residual (Chloramines)	ppm	[4.0]	[4.0]	1.7-2.0	1.9	Drinking water disinfectant added for treatment
SECONDARY STANDARDS – AESTHETIC STANDARDS						
Chloride	ppm	500	NA	90-93	92	Runoff/leaching from natural deposits; seawater influence
Color	Units	15	NA	ND- <1	ND	Naturally occurring organic materials
Odor Threshold (h)	TON	3	NA	0-<1	<1	Naturally occurring organic materials
Specific Conductance	uS/cm	1600	NA	913-947	930	Substances that form ions in water; seawater influence
Sulfate	ppm	500	NA	187-211	199	Runoff/leaching from natural deposits; industrial waste
Total Dissolved Solids (TDS)	ppm	1000	NA	500-579	575	Runoff/leaching from natural deposits; seawater influence
Turbidity	NTU	5	NA	ND-0.20	0.12	Soil runoff
OTHER PARAMETERS						
Alkalinity	ppm	NA	NA	123-127	125	
Boron	ppb	NL=1000	NA	110	110	Runoff/leaching from natural deposits; industrial waste
Calcium	ppm	NA	NA	65-70	68	
Chlorate	ppb	NL=800	NA	21-105	51	By-product of drinking water chlorination; industrial processes
Corrosivity (k) (as Aggressive Index)	AI	NA	NA	12.4	12.4	Elemental balance in water; affected by temperature, other factors
Corrosivity (g) (as Saturation Index)	SI	NA	NA	0.53-0.61	0.57	Elemental balance in water; affected by temperature, other factors
Hardness	ppm	NA	NA	264-276	270	
Magnesium	ppm	NA	NA	24-25	25	
N-Nitrosodi-Methylamine (NDMA)	ppt	NL=10	3	ND-5.0	2.0-2.9	By-product of drinking water chloramination; industrial processes
pH	Units	NA	NA	8.1	8.1	
Potassium	ppm	NA	NA	4.3-4.5	4.4	
Sodium	ppm	NA	NA	86-90	88	
Total Organic Carbon (TOC)	ppm	TT	NA	2.0-2.8	2.3	Various natural and man-made sources

2014 Water Quality Data - Valley Center Municipal Water District

Our water quality information for 2014 is listed in the tables on this page. Contained in the table are the test results for clarity and microbiological safety. Also included are results for 10 inorganic and secondary standards (aesthetic). Finally, the table includes results for 13 "other parameters" for which there are no current state or federal standards.

What do all the abbreviations mean?

A number of abbreviations are contained on the Water Quality tables which are important to your understanding of the data, and those are:

Maximum Contaminant Level or MCL: The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

Maximum Contaminant Level Goal or MCLG: The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency.

Maximum Residual Disinfection Level or MRDL:

Maximum Residual Disinfection Level Goal or MRDLG:

Public Health Goal or PHG: The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

Primary Drinking Water Standard or PDWS: MCLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

Secondary Drinking Water Standards (SDWS): MCLs for contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with SDWS do not affect the health at the MCL levels.

Regulatory Action Level (AL): The concentration of contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Important! 2014 Water Quality Report

If appropriate, please post this report so that others may review its contents. Additional copies may be obtained by contacting the District at (760) 735-4500.

ABBREVIATIONS AND FOOTNOTES

A = Absence
AI = Aggressive Index
AL = Action Level: the concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow
CFU/mL = Colony-forming units per milliliter
DBP = Disinfection Byproducts
DLR = Detection Limits for purposes of Reporting
HPC = Heterotrophic Plate Count
MCL = Maximum Contaminant Level
MCLG = Maximum Contaminant Level Goal
MRDL = Maximum Residual Disinfectant Level
MRDLG = Maximum Residual Disinfectant Level Goal
N = Nitrogen
NA = Not Applicable
ND = Non Detectable
NL = Notification Level
NTU = Nephelometric Turbidity Units is a measure of the suspended material in water
P = Presence
pCi/L = Pico Curies per liter (a measure of radiation)
PHG = Public Health Goal
ppb = Parts per Billion
ppm = Parts per Million
ppt = Parts per Trillion
SI = Saturation Index
TOC = Total Organic Carbon
TON = Threshold Odor Number
TT = Treatment Technique: a required process intended to reduce the level of a contaminant in drinking water
µS/cm = Microohms per centimeter

(a) Data shown are annual averages and ranges

(b) As Primary Standards, the turbidity level of the filtered water shall be less than or equal to 0.3 NTU in 95% of the measurements taken each month and shall not exceed 1.0 NTU for more than one hour. Turbidity is a measure of the cloudiness of the water and is an indicator of treatment performance.

(c) Total coliform MCLs: No more than 5.0% of the monthly samples may be total coliform positive. When collecting <40 samples, if two or more are total coliform positive, the MCL is violated. The MCL was not violated.

E. coli MCLs: The occurrence of 2 consecutive total coliform positive samples, one of which contains fecal coliform/E. coli, constitutes an acute violation. Standards and results are based on distribution system monthly sampling averages. Compliance is based on distribution system sampling from all pressure zones. 416 samples were analyzed in 2014. The MCL was not violated.

(d) Calculated from the average of quarterly samples. Compliance is based on a running annual average of 16 distribution system samples. VCMWD was in compliance with the Stage 2 Disinfection By-Products (D/DBP) Rule.

(e) Calculated from the average quarterly samples. Compliance is based on a running annual average of 16 distribution system samples. VCMWD was in compliance with the Stage 2 Disinfection By-Products (D/DBP) Rule.

(f) Lead and copper are regulated in a Treatment Technique under the Lead and Copper Rule. The lead and copper results for 2014 are from 30 water samples collected from the consumers' tap throughout the VCMWD distribution system. The federal action level which triggers water systems into taking treatment steps if exceeded in more than 10% of the tap water samples, is 1.3 ppm for copper and 15 ppb for lead. There were zero samples that exceeded the action level.

(g) Positive SI index = non-corrosive: tendency to precipitate and/or deposit scale on pipes.
Negative SI index = corrosive: tendency to dissolve calcium carbonate.

(h) Results are from VCMWD's laboratory's flavor profile analyses that detects odor occurrences more accurately.

(i) State MCL is 45 ppm as nitrate which equals 10 ppm as (N).

(j) Chromium VI reporting level is 0.03 ppb, which is below the state DLR of 1 ppb. Data above Metropolitan's reporting level and below the DLR are reported as ND in this report.

(k) AI < 10.0 = highly aggressive and very corrosive water.
AI >12.0 = non-aggressive water.
AI (10.0 – 11.9) = moderately non-aggressive water.

(l) Metropolitan Water District was in compliance with all provisions of the State's Fluoridation System Requirements. For additional information, visit the Health Department's fluoridation website: www.cdph.ca.gov/certlic/drinkingwater/pages/Fluoridation.aspx

(m) There is no range or average for total coliform sample results. VCMWD had no coliform present samples in 2014. Samples are collected every Monday, and the number collected per month is either 32 or 40.

Appendix D

2013-2014 BMP Retail Coverage Reports

CUWCC 2013 BMP Retail Coverage Report for Valley Center Municipal Water District

CUWCC BMP Retail Coverage Report 2013

Foundational Best Managemant Practices for Urban Water Efficiency

BMP 1.1 Operation Practices

ON TRACK

232 Valley Center Municipal Water District

1. Conservation Coordinator provided with necessary resources to implement BMPs?

Name:	Patricia Garcia
Title:	Supervisor GIS/Water Efficiency Coordinator
Email:	PGarcia@vcmwd.org

2. Water Waste Prevention Documents

WW Document Name	WWP File Name	WW Prevention URL	WW Prevention Ordinance Terms Description
Option A Describe the ordinances or terms of service adopted by your agency to meet the water waste prevention requirements of this BMP.	Art-230 Water Supply Management and Shortage Condition Response Program.doc		Water Supply Management and Shortage Condition Response Program
Option B Describe any water waste prevention ordinances or requirements adopted by your local jurisdiction or regulatory agencies within your service area.	Copy of Art-230 Water Supply Management and Shortage Condition Response Program.doc		Water Supply Management and Shortage Condition Response Program
Option C Describe any documentation of support for legislation or regulations that prohibit water waste.	Copy1 of Art-230 Water Supply Management and Shortage Condition Response Program.doc	http://www.valleycenterwater.org/Conservation/Mandatory-Restrictions	Water Supply Management and Shortage Condition Response Program
Option D Describe your agency efforts to cooperate with other entities in the adoption or enforcement of local requirements consistent with this BMP.			N/A
Option E Describe your agency support positions with respect to adoption of legislation or regulations that are consistent with this BMP.			N/A
Option F Describe your agency efforts to support local ordinances that establish permits requirements for water efficient design in new development.			Water Supply Management and Shortage Condition Response Program

At Least As effective As No

N/A

Exemption No

CUWCC BMP Retail Coverage Report 2013

Foundational Best Managemant Practices for Urban Water Efficiency

BMP 1.1 Operation Practices **ON TRACK**

Comments:

N/A

CUWCC BMP Coverage Report 2013

Foundational Best Management Practices For Urban Water Efficiency

BMP 1.2 Water Loss Control

ON TRACK

232 Valley Center Municipal Water District

Completed Standard Water Audit Using AWWA Software?	Yes
AWWA File provided to CUWCC?	Yes
Copy1_of_2013_AWWA-WAS-v5-09152014.xls	
AWWA Water Audit Validity Score?	95
Complete Training in AWWA Audit Method	Yes
Complete Training in Component Analysis Process?	Yes
Component Analysis?	Yes
Repaired all leaks and breaks to the extent cost effective?	Yes
Locate and Repar unreported leaks to the extent cost effective?	Yes
Maintain a record keeping system for the repair of reported leaks, including time of report, leak location, type of leaking pipe segment or fitting, and leak running time from report to repair	Yes

Provided 7 Types of Water Loss Control Info

Leaks Repairs	Value Real Losses	Value Apparent Losses	Miles Surveyed	Press Reduction	Cost Of Interventions	Water Saved (AF)
16			340.13	True		

At Least As effective As No

N/A

Exemption No

Comments:

N/A

CUWCC BMP Coverage Report 2013

Foundational Best Management Practices For Urban Water Efficiency

BMP 1.3 Metering With Commodity

ON TRACK

232 Valley Center Municipal Water District

Numbered Unmetered Accounts	No
Metered Accounts billed by volume of use	Yes
Number of CII Accounts with Mixed Use Meters	0
Conducted a feasibility study to assess merits of a program to provide incentives to switch mixed-use accounts to dedicated landscape meters?	No
Feasibility Study provided to CUWCC?	No

Date: 1/1/0001

Uploaded file name:

Completed a written plan, policy or program to test, repair and replace meters	Yes
At Least As effective As	No
Exemption	No

Comments:

"Other" Account Types indicated in Matrix above are: Recycled water (1) and Potable Construction meters.

CUWCC BMP Coverage Report 2013

Foundational Best Management Practices For Urban Water Efficiency

BMP 1.4 Retail Conservation Pricing

On Track

232 Valley Center Municipal Water District

Implementation (Water Rate Structure)

Customer Class	Water Rate Type	Conserving Rate?	(V) Total Revenue Comodity Charges	(M) Total Revenue Fixed Carges
Single-Family	Uniform	Yes	9082239.35	3141588.49
Multi-Family	Uniform	Yes	753385.72	107353.92
Commercial	Uniform	Yes	1351479.74	161391.55
Institutional	Uniform	Yes	306161.54	34879.17
Other	Uniform	Yes	20017.92	14983.97
Other	Uniform	Yes	57684.86	1453.56
			11570969.13	**3461650.66**

Calculate: V / (V + M) **77 %**

Implementation Option: Use Annual Revenue As Reported

☐ Use 3 years average instead of most recent year

Canadian Water and Wastewater Association

Upload file:

Agency Provide Sewer Service: Yes

Customer Class	Rate Type	Conserving Rate?
Single-Family	Uniform	Yes
Multi-Family	Uniform	Yes
Commercial	Uniform	Yes
Institutional	Uniform	Yes

At Least As effective As No

N/A

Exemption No

Comments:

N/A

CUWCC BMP Coverage Report 2013

Foundational Best Management Practices For Urban Water Efficiency

BMP 2.1 Public Outreach

ON TRACK

232 Valley Center Municipal Water District **Retail**

Does your agency perform Public Outreach programs? No

The list of wholesale agencies performing public outreach which can be counted to help the agency comply with the BMP

Metropolitan Water District of SC,San Diego County Water Authority
www.sdcwa.org; www.mwdh2o.com

The name of agency, contact name and email address if not CUWCC Group 1 members

Did at least one contact take place during each quater of the reporting year? Yes

Public Outreach Program List		Number
Website		1450
Newsletter articles on conservation		4000
Flyers and/or brochures (total copies), bill stuffers, messages printed on bill, information packets		65000
General water conservation information		25000
	Total	**95450**

Did at least one contact take place during each quater of the reporting year? Yes

Number Media Contacts		Number
Editorial board visits		12
News releases		55
Newspaper contacts		6
Written editorials		6
	Total	**79**

Did at least one website update take place during each quater of the reporting year? Yes

Public Information Program Annual Budget

Annual Budget Category		Annual Budget Amount
Conservation/Outreach		14000
	Total Amount:	**14000**

Public Outreah Additional Programs

Participation at region-wide events

Information made available on web site and hard copy

Description of all other Public Outreach programs

Plant Fairs at The Home Depot

CUWCC BMP Coverage Report 2013

Foundational Best Management Practices For Urban Water Efficiency

BMP 2.1 Public Outreach **ON TRACK**

Comments:

At Least As effective As	No	
Exemption	No	0

CUWCC BMP Coverage Report 2013

Foundational Best Management Practices For Urban Water Efficiency

BMP 2.2 School Education Programs

ON TRACK

232 Valley Center Municipal Water District **Retail**

Does your agency implement School Education programs? Yes

The list of wholesale agencies performing public outreach which can be counted to help the agency comply with the BMP

Metropolitan Water District of SC,San Diego County Water Authority

Agencies Name	ID number
Metropolitan Water District of SC	161
San Diego County Water Authority	196

Materials meet state education framework requirements? Yes

Yes, all are compliant with State curriculum standards

Materials distributed to K-6? Yes

Posters on water distribution & water cycle, corresponding workbooks (Watersheds, Water & You), coloring books & crayons, cootie catchers with rain tips, pencil pouches w/conservation messages; age appropriate activity booklets.

Materials distributed to 7-12 students? Yes (Info Only)

Material and website available to SDCWA and MWD programs Materials related to Water Quality testing.

Annual budget for school education program: 10000.00

Description of all other water supplier education programs

District funded Green Machine and Splash Lab, Water-related assemblies; Scout Patch Program; Reuban H. Fleet Science Center

Comments:

At Least As effective As No

Exemption No 0

CUWCC 2014 BMP Retail Coverage Report for Valley Center Municipal Water District

CUWCC BMP Retail Coverage Report 2014

Foundational Best Managemant Practices for Urban Water Efficiency

BMP 1.1 Operation Practices

ON TRACK

232 Valley Center Municipal Water District

1. Conservation Coordinator provided with necessary resources to implement BMPs?

Name:	Patricia Garcia
Title:	Supervisor GIS/Water Efficiency Coordinator
Email:	pgarcia@vcmwd.org

2. Water Waste Prevention Documents

WW Document Name	WWP File Name	WW Prevention URL	WW Prevention Ordinance Terms Description
Option A Describe the ordinances or terms of service adopted by your agency to meet the water waste prevention requirements of this BMP.	Art-230 Water Supply Management and Shortage Condition Response Program.pdf		Water Supply Management and Shortage Condition Response Program
Option B Describe any water waste prevention ordinances or requirements adopted by your local jurisdiction or regulatory agencies within your service area.	Copy of Art-230 Water Supply Management and Shortage Condition Response Program.pdf		Water Supply Management and Shortage Condition Response Program
Option C Describe any documentation of support for legislation or regulations that prohibit water waste.	Copy1 of Art-230 Water Supply Management and Shortage Condition Response Program.pdf		Water Supply Management and Shortage Condition Response Program
Option D Describe your agency efforts to cooperate with other entities in the adoption or enforcement of local requirements consistent with this BMP.			N/A
Option E Describe your agency support positions with respect to adoption of legislation or regulations that are consistent with this BMP.			N/A
Option F Describe your agency efforts to support local ordinances that establish permits requirements for water efficient design in new development.			N/A

At Least As effective As No

N/A

Exemption No

CUWCC BMP Retail Coverage Report 2014

Foundational Best Managemant Practices for Urban Water Efficiency

BMP 1.1 Operation Practices **ON TRACK**

Comments:

N/A

CUWCC BMP Coverage Report 2014

Foundational Best Management Practices For Urban Water Efficiency

BMP 1.2 Water Loss Control — ON TRACK

232 Valley Center Municipal Water District

Completed Standard Water Audit Using AWWA Software?	Yes
AWWA File provided to CUWCC?	Yes
2014_AWWA-WAS-v5-09152014.xls	
AWWA Water Audit Validity Score?	95
Complete Training in AWWA Audit Method	Yes
Complete Training in Component Analysis Process?	Yes
Component Analysis?	Yes
Repaired all leaks and breaks to the extent cost effective?	Yes
Locate and Repar unreported leaks to the extent cost effective?	Yes
Maintain a record keeping system for the repair of reported leaks, including time of report, leak location, type of leaking pipe segment or fitting, and leak running time from report to repair.	Yes

Provided 7 Types of Water Loss Control Info

Leaks Repairs	Value Real Losses	Value Apparent Losses	Miles Surveyed	Press Reduction	Cost Of Interventions	Water Saved (AF)
13			340.13	True		

At Least As effective As No

N/A

Exemption No

Comments:

N/A

CUWCC BMP Coverage Report 2014

Foundational Best Management Practices For Urban Water Efficiency

BMP 1.3 Metering With Commodity

ON TRACK

232 Valley Center Municipal Water District

Numbered Unmetered Accounts	No
Metered Accounts billed by volume of use	Yes
Number of CII Accounts with Mixed Use Meters	0
Conducted a feasibility study to assess merits of a program to provide incentives to switch mixed-use accounts to dedicated landscape meters?	No
Feasibility Study provided to CUWCC?	No

Date: 1/1/0001

Uploaded file name:

Completed a written plan, policy or program to test, repair and replace meters	Yes

At Least As effective As Yes

Feasibility study is not applicable because we have no CII mixed use

Exemption No

Comments:

"Other" Account Types indicated in Matrix above are: Recycled water (1) and Potable Construction meters.

CUWCC BMP Coverage Report 2014

Foundational Best Management Practices For Urban Water Efficiency

BMP 1.4 Retail Conservation Pricing

On Track

232 Valley Center Municipal Water District

Implementation (Water Rate Structure)

Customer Class	Water Rate Type	Conserving Rate?	(V) Total Revenue Comodity Charges	(M) Total Revenue Fixed Carges
Single-Family	Uniform	Yes	9985819.9	3435013.34
Multi-Family	Uniform	Yes	901028.51	117839.82
Commercial	Uniform	Yes	2963938.3	249104.1
Institutional	Uniform	Yes	330196.18	38032.04
Other	Uniform	Yes	71271.51	19458.77
Other	Uniform	Yes	35482.27	1559.01
			14287736.67	**3861007.08**

Calculate: V / (V + M) **79 %**

Implementation Option: Use Annual Revenue As Reported

☐ Use 3 years average instead of most recent year

Canadian Water and Wastewater Association

Upload file:

Agency Provide Sewer Service: Yes

Customer Class	Rate Type	Conserving Rate?
Single-Family	Uniform	Yes
Multi-Family	Uniform	Yes
Commercial	Uniform	Yes
Institutional	Uniform	Yes

At Least As effective As No

Exemption No

Comments:

CUWCC BMP Coverage Report 2014

Foundational Best Management Practices For Urban Water Efficiency

BMP 2.1 Public Outreach

ON TRACK

232 Valley Center Municipal Water District **Retail**

Does your agency perform Public Outreach programs? Yes

The list of wholesale agencies performing public outreach which can be counted to help the agency comply with the BMP

Metropolitan Water District of SC,San Diego County Water Authority
www.sdcwa.org; www.mwdh2o.com

The name of agency, contact name and email address if not CUWCC Group 1 members

Did at least one contact take place during each quater of the reporting year? Yes

Public Outreach Program List	Number
Newsletter articles on conservation	4550
Flyers and/or brochures (total copies), bill stuffers, messages printed on bill, information packets	10000
Website	8000
General water conservation information	10000
Total	**32550**

Did at least one contact take place during each quater of the reporting year? Yes

Number Media Contacts	Number
Editorial board visits	12
News releases	60
Newspaper contacts	12
Written editorials	6
Total	**90**

Did at least one website update take place during each quater of the reporting year? Yes

Public Information Program Annual Budget

Annual Budget Category	Annual Budget Amount
Public Outreach & Education	14000
Total Amount:	**14000**

Public Outreah Additional Programs

Participation at region-wide events

Information made available on web site and hard copy

Description of all other Public Outreach programs

The Home Depot Plant Fairs

CUWCC BMP Coverage Report 2014

Foundational Best Management Practices For Urban Water Efficiency

BMP 2.1 Public Outreach

ON TRACK

Comments:

At Least As effective As	No	
Exemption	No	0

CUWCC BMP Coverage Report 2014

Foundational Best Management Practices For Urban Water Efficiency

BMP 2.2 School Education Programs

ON TRACK

232 Valley Center Municipal Water District **Retail**

Does your agency implement School Education programs? Yes

The list of wholesale agencies performing public outreach which can be counted to help the agency comply with the BMP

Metropolitan Water District of SC,San Diego County Water Authority

Materials meet state education framework requirements? Yes

Yes, all are compliant with State curriculum standards

Materials distributed to K-6? Yes

Posters on water distribution & water cycle, corresponding workbooks (Watersheds, Water & You), coloring books & crayons, cootie catchers with rain tips, pencil pouches w/conservation messages; age appropriate activity booklets.

Materials distributed to 7-12 students? Yes (Info Only)

Material and website available to SDCWA and MWD programs. Materials related to Water Quality testing.

Annual budget for school education program: 10000.00

Description of all other water supplier education programs

District funded Green Machine and Splash Lab. Water-related assemblies; Scout Patch Program; Reuban H. Fleet Science Center

Comments:

At Least As effective As No

Exemption No 0

CUWCC BMP Coverage Report 2014

232 Valley Center Municipal Water District

Baseline GPCD: 1748.35

GPCD in 2014 1049.75

GPCD Target for 2018: 1433.60

Biennial GPCD Compliance Table **ON TRACK**

		Target		Highest Acceptable Bound	
Year	Report	% Base	GPCD	% Base	GPCD
2010	1	96.4%	1685.40	100%	1748.40
2012	2	92.8%	1622.50	96.4%	1685.40
2014	3	89.2%	1559.50	92.8%	1622.50
2016	4	85.6%	1496.60	89.2%	1559.50
2018	5	82.0%	1433.60	82.0%	1433.60

Appendix E

VCMWD's Regulations and Codes

Article 160

VCMWD Water Service Rules and Regulations

Article 160 Water Service - Rules and Regulations

Sec. 160.1 Purpose. The purpose of these rules and regulations is to set forth the terms and conditions under which the District will provide water service to customers. These rules and regulations have been designed to regulate the affairs of the District in such a way as to provide water service to the customers at the lowest possible cost and to provide for an equitable distribution of costs from those benefited. The Board shall have the right to interpret these rules and to rule on any point of contention which is not specifically covered herein.

Sec. 160.2 Water Service Applications.

(a) At the time application for water service is submitted to the District, the applicant is required to provide all of the following:

1. Total payment of all costs for and related to meter service connections (Reference Sections 160.4, 160.12 and 160.20).

2. Proof of ownership of the parcel to be served (Grant Deed or Title Policy) when documents to be recorded by the District are required.

3. Proof of easement that may be utilized by the applicant if the applicant's property does not adjoin the District's right-of-way (grant deed, title policy). A notice indicating the meter is off site and may be relocated (per Section 160.8) will be shown on the application.

4. Service application shall be signed by owner/agent acknowledging conditions of service. If the Applicant is not the owner of record, the Applicant shall provide written consent to act on behalf of the property owner of the parcel subject to the requested water service action.

(b) Water Service Applications Will be Subject to the Following:

1. No application may be accepted unless VCMWD facilities are existing or under construction.

2. If water pressure at the meter location is expected to be less than 25 psi, or greater than 200 psi, during normal operation, a notice of such pressure will be shown on the application.

3. If the District owns legal interest in an applicant's property, a notice will be shown on the application. The applicant will be referred to Underground Service Alert for mark out requests and provided with a copy of the District's Encroachment Permit Policy, Article 270.

Per Ordinance No. 2004-07 Adopted 5/17/04 [Sec. 160.2]
Per Ordinance No. 2014-03 Adopted 06/02/14 [Sec. 160.2(a)]
Per Ordinance No. 2005-13 Adopted 12/19/05 [Sec. 160.2(b)]

Sec. 160.2 Water Service Applications (Cont'd.)

(b) Water Service Applications Will be Subject to the Following (Cont'd.):

4. No application can be accepted and processed until the aforementioned documents are provided.

5. A meter application shall be considered valid for no longer than six months. Should an application remain on the installation list for six months through no fault of the District, the meter application will be canceled and all monies paid for the meter service will be refunded to the applicant.

(c) Water Service Installation is Subject to the Following:

1. No permanent water meter may be installed prior to acceptance of VCMWD's facilities.

2. Once the application has been approved by the District, the applicant will be provided with a meter stake and instructed to set the stake where the meter will be installed. The District will have final approval of the meter location.

3. Once the service order has been approved, it will be forwarded to the meter department and added to the meter installation schedule. Meters are installed on a first come, first served basis without loss of continuity to working schedules. If the meter stake is not set by the applicant, the meter installation will be rescheduled for a later date.

4. Meters can only be set in a District right-of-way. It is District policy to set meters within 40 feet of a service main as meter connection charges have been priced accordingly. Any additional costs incurred to install a service lateral in excess of 40 feet will be charged to the customer. The District will have final approval of meter location.

5. The installation of a water meter is appurtenant to a specific property. Any relocation of a meter is to be limited to a location to serve the property or any portion of the property the original meter was installed to serve.

Per Ordinance No. 95-4 Adopted 4/17/95 [Sec. 160.2]
Per Ordinance No. 2005-13 Adopted 12/19/05 [Sec. 160.2(b)]
Per Ordinance No. 2005-13 Adopted 12/19/05 [Sec. 160.2(c)]

Sec. 160.3 Water Service Charges and Water Rates. The water service charges and rates for filtered and unfiltered water, pumping energy and surcharges and miscellaneous zone charges are as follows and may be changed from time to time as the Board determines.

(a) Monthly Service Charge

1. Standard Meters:

Meter Size	3/4"	1"	1-1/2"	2"	3"
Monthly Service Charge for Water Availability	$36.30	$49.59	$74.39	$99.18	$148.77

Meter Size	4"	6"	8"
(Cont'd)	$198.36	$297.54	$396.72

2. Fire Protection Meters:

Meter Size	3/4"	1"	1-1/2"	2"	3"
Monthly Service Charge for Water Availability	$ 8.75	$12.25	$18.25	$24.25	$36.50

Meters larger than 3" will be limited to Master Meters serving multiple dwellings such as trailer parks, condominiums and apartments and will require the approval of the District Engineer. The monthly service charge will be based on the following:

A. The size of the meter times the 1" service charge shown above. Compound and fire flow meters will be treated as separate meters for service charges and water billing purposes.

B. Water through a fire flow meter will be charged in accordance with Article 160.23(d).

Per Ordinance No. 2003-01 Adopted 1/6/2003 [Sec. 160.3(a)(2)]
Per Ordinance No. 2014-03 Adopted 6/2/14 [Sec. 160.3(a)(2)(B)]
Per Ordinance No. 2015-16 Adopted 11/16/15 [Sec. 160.3(a)(1)]

Article 160 Water Service - Rules and Regulations (Cont'd.)

Sec. 160.3 Water Service Charges and Water Rates (Cont'd.)

(b) Water Rates

Water Rates per 100 cubic feet:

Domestic/Commercial	$4.3967
Certified TSAWR Agricultural	$3.1757

Certified TSAWR Agricultural/Domestic: First 26 hcf at Domestic/ Commercial rate, all over 26 hcf at Certified Agricultural rate.

Construction Water: Potable at Domestic/Commercial rate, Nonpotable-75% of potable rate.

Fire Service: It is the intent of the District to provide water for fire protection at no cost to the customers in the District. However, unauthorized water used through a fire service or fire hydrant will be billed at three (3) times the then domestic/commercial water commodity rate as set forth in this section of the District's Administrative Code. Repeated unauthorized use may result in prosecution by the District under Section 498 of the California Penal Code.

(c) San Diego County Water Authority Monthly Infrastructure Access Charge. In accordance with Section 15.3.5 of the San Diego County Water Authority Act, the Authority will, annually, assess the Valley Center Municipal Water District a fixed charge based on the number and size of the active meters within the District. The charge to the District will be based on the following table and the charge will be passed through and collected from active District customers using Authority water. The charge will be shown separately on the customer's water bill and identified as a pass through from the Authority.

Meter Size	Infrastructure Access Monthly Charge
3/4"	$2.76
1"	4.42
1-1/2"	8.28
2"	14.35
3"	26.50
4"	45.26
6"	82.80
8"	143.52

Per Ordinance No. 2015-16 Adopted 11/16/15 [Sec. 160.3(b)]
Per Ordinance No. 2015-01 Adopted 01/05/15 [Sec. 160.3(c)]

(d) Classification Definitions. For purposes of rate classifications, the following definitions shall apply:

1. Domestic/Commercial. The use of water for all purposes not qualifying under another classification herein. This is also known as Municipal and Industrial.

2. Agricultural - Certified. The use of water for the purpose of the growing or raising, in conformity with recognized practices of husbandry, for the purposes of commerce, trade, or industry, or agricultural, horticultural, or floricultural products, and produced (1) for human consumption or for the market, or (2) for the feeding of fowl or livestock produced for human consumption or for the market, or (3) for the feeding of fowl or livestock for the purpose of obtaining their products for human consumption or for the market, such products to be grown or raised on a parcel of land having an area of not less than one acre utilized exclusively therefore.

   Requires certification by owner or agent that water used on property meets definition stated herein.

3. Agricultural/Domestic - Certified. The use of water for the purpose stated in Section 160.3(d)(2) with incidental domestic use. Requires certification as stated in Section 160.3(d)(2).

4. Commercial Agricultural Full Price (CAFP). Commercial agriculture customers that are not participating in the SDCWA Transitional Special Agricultural Water Rate (TSAWR) program and paying full price for water.

   Requires certification by owner or agent that water used on property meets definition stated in Section 160.3(d)2.

5. Construction Water. The use of potable water from District appurtenances and the use of nonpotable water from Lake Turner through a temporary meter as provided by Section 160.24 of this Code.

Per Ordinance No. 2015-13 Adopted 07/06/15 [Sec. 160.3(d)(4)]
Per Ordinance No. 2007-02 Adopted 1/29/07 [Sec. 160.3(d)(1)]

(e) Surcharge on Water Delivered Per Agreement. Those customers receiving water which results in direct additional cost to the District, such as those customers connected to the Yuima line, will be charged a sufficient surcharge on the water consumed to reimburse the District for all additional costs incurred.

(f) Pump Zone Charges. All customers will be charged a pumping energy surcharge based on water consumed as follows:

Zone Number	Charges Per 100 Cubic Feet
0	$.00000
1	.07851
2	.15698
3	.17415
4	.26008
5	.38147
6	.42553
7	.45126
8	.51146
9	.52975
10	.70165

The zone is determined by the District's main serving the meter as shown on the map entitled "Pump Zones" available at the District office. This map may be modified as new lines are constructed within the District.

(g) Pass Through of Wholesale Suppliers' Fees and Charges. All San Diego County Water Authority and Metropolitan Water District of Southern California fees and charges for wholesale water and water related services shall be passed through to Valley Center Municipal Water District customers by action of the Board of Directors.

Per Ordinance No. 215 Adopted 2/19/91 [Sec. 160.3(e)]
Per Ordinance No. 98-03 Adopted 6/1/98 [Sec. 160.3(g)]
Per Ordinance No. 2005-14 Adopted 12/5/05 [Sec. 160.(f)]

Sec. 160.4 Connection of Service. The applicant shall be required to pay connection, equipment and capacity fees in full before a service connection will be made. These fees are refundable only if the water service commitment has not been used to obtain a building permit, if no connection to the District system has been made and if the District has not constructed or committed itself to construct facilities because of the application for which the fee was paid.

(a) Connection Charge. The connection charge shall be as follows:

	5/8"	3/4"	1"	1-1/2"	2"	3"
When Service Lateral is Installed by District	---	$3,870	$3,944	$4,797	$5,449	$6,364
When Service Lateral is Installed by Others at the District's Discretion	$472	$505	$564	$1,278	$1,421	$1,772

1" Residential Fire Sprinkler Meter Tee - $100.00. The cost is periodically adjusted for larger meters requiring a larger tee.

1. Service Valve. Upon installation of a water service, a valve will be located on the edge of the customer's property and is there only to assist in making initial connection and emergency shutoffs. The District will use it for turn-offs when necessary. It is required that a valve also be installed in the customer's system for control purposes.

2. Meter Size Limitations. An application for a meter(s), 1-1/2" and larger, will not be approved until after a hydraulic evaluation by the District Engineer demonstrates adequate capacity is available at the proposed point(s) of service.

(b) Equipment Charge. The applicant shall be required to pay for any additional equipment that may be needed for the applicant's water service in accordance with the following sections of this Code:

1. Orifice plates (Sec. 160.11)
2. Backflow Prevention Devices (Sec. 160.12)
3. Cla-Valve (Sec. 160.18)
4. Pressure Reducing Valves (Sec. 160.19)

Per Ordinance No. 99-06 Adopted 10/4/99 [Sec. 160.4(b)]
Per Ordinance No. 2004-07 Adopted 5/17/04 [Sec. 160.4(a)(2)]
Per Ordinance No. 2014-03 Adopted 6/2/14 [Sec. 160.4(a)]

Sec. 160.4 Connection of Service (Cont'd.)

(c) Valley Center Municipal Water District (VCMWD) Meter Capacity Charge. In addition to any other charge provided herein, the applicant requesting new service for any parcel shall be required to pay a VCMWD meter capacity charge for capital improvements to the District's water system as follows:

5/8"	3/4"	1"	1-1/2"	2"	3"
$3,096	$4,644	$7,740	$15,480	$24,768	$46,440

The following are exceptions to this Sec. 160.4:

1. VCMWD Meter capacity charges for meters increased or reduced in size shall be in accordance with Section 160.7 hereof.

2. No VCMWD meter capacity charge shall be made for relocating meters of equal size whether or not any VCMWD meter capacity charge was in effect when original meter was obtained.

3. No VCMWD meter capacity charge shall be imposed for a meter obtained for temporary purposes, such as for construction of a home or development. Temporary use is limited to two years.

4. No VCMWD meter capacity charge shall be imposed for a water meter obtained and used solely for fire protection purposes.

5. The imposition of the VCMWD meter capacity charge upon any public school or any state agency (as defined in Government Code Section 54999.1(9)) shall be subject to the provisions of Section 54999.3(b) of the Government Code. Payment by any public school or state agency of the applicable VCMWD meter capacity charge shall be deemed agreement with the District regarding the charge. If any public school or state agency refuses to pay the applicable VCMWD meter capacity charge, the public school or state agency and the District shall enter into negotiations regarding the charge. No VCMWD water meter shall be supplied to the public school or state agency until agreement has been reached regarding the VCMWD meter capacity charge and the agreed upon VCMWD meter capacity charge has been paid.

Per Ordinance No. 2014-03 Adopted 6/2/14 [Sec. 160.4(c)]

(c) Valley Center Municipal Water District (VCMWD) Meter Capacity Charge (Cont'd.).

6. VCMWD meter capacity charges may be waived by the Board of Directors for meters installed in designated developments and subdivisions that pay for comparable offsite improvements of the District.

7. Capacity credits obtained from the downsizing of an existing meter, pursuant to Sec. 160.7 herein, and transferred to the applicant's parcel shall be applied to the purchase of new VCMWD meter capacity. Any capacity credits not used in the purchase of new capacity will be forfeited.

8. For a public agency requesting water meter(s), the VCMWD meter capacity charge can be reduced by the percentage of the VCMWD area that is being served by that public agency, if that public agency does not charge VCMWD fees in its normal course of business. Exemption/reduction would not be applicable to fees associated with special financing districts.

(d) San Diego County Water Authority (SDCWA) Meter Capacity Charge. As required by Section 5.9 of the County Water Authority Act, the District, as a member agency of the San Diego County Water Authority (SDCWA), shall collect and remit to SDCWA the SDCWA meter capacity charge.

The ordinance of the SDCWA in effect at the time that a water meter is purchased from the District shall govern the amount of the SDCWA meter capacity charge to be collected, the persons liable therefore, and the procedures to be followed. The District shall not provide a water meter to a water user until the water user has paid to the District the applicable SDCWA meter capacity charge.

(e) VCMWD Meter Capacity Credits. When an existing meter is downsized in accordance with Section 160.7 hereof, and a credit balance remains, a VCMWD Meter Capacity Credit, in the form of an agreement between the District and property owner, may be issued for the amount of capacity represented by the credit balance as follows:

1. Each parcel, including each subdivided lot thereof, originally served by the downsized meter must have a meter.

Per Ordinance No. 2014-03 Adopted 6/2/14 [Sec. 160.4(c)]
Per Ordinance No. 2014-03 Adopted 6/2/14 [Sec. 160.4(d)]
Per Ordinance No. 99-06 Adopted 10/4/99 [Sec. 160.4(e)]

Sec. 160.4 Connection of Service (Cont'd.)

(e) VCMWD Meter Capacity Credits (Cont'd.)

2. The property owner shall designate, as part of the downsizing transaction, the parcel to which the capacity is to be transferred.

3. The capacity credits may not remain on the parcel, or any subdivided lot thereof, originally served by the downsized meter.

4. Capacity credits not transferred as part of the downsizing transaction will be forfeited.

5. The parcel(s) to which the capacity credits are transferred must have identical vesting as the parcel served by the downsized meter, with the following exception:

   The applicant shall have and demonstrate ownership interest in the parcels to which the Capacity Credit is to be transferred.

6. The capacity credit shall be calculated as a ratio of the credit balance to the VCMWD meter capacity charge of a 3/4" meter.

   Example: Applicant desires to downsize a 2" meter to four 3/4" meters and transfer the remaining capacity to another of his/her parcels. The capacity credit would be calculated as follows:

   Capacity Credit = Credit Balance ÷ ¾" VCMWD Meter Capacity Charge[1]

VCMWD Meter Capacity Charge:	
4-3/4" meters @ $4,644[1]	$18,576
Less 2" VCMWD Meter Capacity Charge	- (24,768)
Credit Balance	($6,192)

   Thus, the Capacity Credit = 6,192/4,644 = 1.3333

[1] Use the VCMWD meter capacity charges per Sec. 160.4(c) current at the time the meter is downsized.

Per Ordinance No. 99-06 Adopted 10/4/99 [Sec. 160.4(e)]
Per Ordinance No. 2014-03 Adopted 6/2/14 [Sec. 160.4(e)(5)&(6)]

Sec. 160.4 Connection of Service (Cont'd.)

(e) VCMWD Meter Capacity Credits (Cont'd.).

7. The capacity credit may not be sold, or exchanged for cash and may only be used for the purchase of new VCMWD meter capacity by the then current owner of the parcel to which the credit is transferred, in accordance with Sec. 160.4(e)(2).

8. The capacity credit expires ten (10) years from the date of issuance.

9. The capacity credit remains with the parcel to which it is transferred, regardless of subsequent ownership, and may not be re-transferred to another parcel.

10. If the parcel to which the capacity credit is transferred is later subdivided, the owner shall designate the amount of capacity credit allocated to each subdivided lot. If not allocated by the owner, the District shall apply the credit to the first meter(s) purchased to serve any of the subdivided lots.

11. When used to purchase new meter capacity, the amount of the capacity credit would be multiplied by the 3/4" VCMWD meter capacity charge in place at that time. The capacity credit may be applied only to the VCMWD meter capacity charge and to no other charges.

    Example: Applicant desires to purchase 1" meter and has a 1.3333 meter capacity credit. Balance due for this transaction would be calculated as follows:

    Available Credit = VCMWD Meter Capacity Credit
    x 3/4" VCMWD Meter Capacity Charge[(2)]

    Available Credit = 1.3333 x $4,644 = $6,192

VCMWD 1" Meter Capacity Charge[(2)]	$7,740
Less the available credit	(6,192)
Balance due for VCMWD Meter Capacity Charge	$1,548

[(2)] Use the VCMWD Meter Capacity Charges per Sec. 160.4(c) current at the time the new meter is being purchased.

Per Ordinance No. 99-06 Adopted 10/4/99 [Sec. 160.4(e)]
Per Ordinance No. 2014-03 Adopted 6/2/14 [Sec. 160.4(e)(9)&(11)]

Article 160 Water Service - Rules and Regulations (Cont'd.)

Sec. 160.5 Billing, Delinquency, Lock-off and Turn-on.

(a) Billing and Lock-off for Non-Payment. Bills are issued near the first and the fifteenth to cover the preceding month. Payment is delinquent 20 days after the date of issue. If payment is not received within 45 days after the day of issue, the meter is subject to lock-off for nonpayment. In lieu of turn-on charge required by Section 160.5(e) hereof, a non-payment service charge of $45.00 plus any bills due must be paid before resumption of service. An after-hour surcharge, as provided by Section 160.5(d), will be added if applicable. A meter is subject to the non-payment service charge if not paid by the advertised lock-off date and time.

(b) Stuck Meters. When a meter is stuck, the amount to be billed must be estimated. The estimated bill shall be determined in the following manner:

(1) The customer's water usage history, including the month immediately preceding the billing cycle in which the meter became stuck, or the same month in the prior year, may be used in calculating the estimated bill or the District's water usage during that same month may be compared to its current month's water usage in order to determine the percentage of water increase or decrease that has occurred during the time the meter has been stuck. The estimated bill shall be a fair representation of the customer's actual consumption.

(2) When a meter malfunctions due to natural causes, (clogged, faulty parts, etc.) the meter shall be repaired or replaced at the District's expense. If a meter is abused through excessive flows, (i.e., any flow over meter's designed maximum), the customer shall bear the costs involved to repair or replace the meter. A bill depicting the material and labor involved in the project shall be presented to the customer and shall be paid in full.

(c) Delinquency Charge. Bills unpaid 20 days after the date of issue are delinquent and shall incur a 10% delinquency penalty charge. Delinquent accounts shall bear interest at a rate of 1-1/2% per month compounded monthly beginning 30 days after delinquency.

(d) After-Hour Surcharge. A surcharge of $35.00 will be added to any other applicable turn-on fees for any turn-on requested after 3:30 p.m. daily or on weekends or holidays.

Per Ordinance No. 2000-09 Adopted 6/19/2000 [Sec. 160.5(b)(1)]
Per Ordinance No. 2000-09 Adopted 6/19/2000 [Sec. 160.5(c)]
Per Ordinance No. 2009-10 Adopted 7/20/2009 [Sec. 160.5(a)]
Per Ordinance No. 2009-10 Adopted 7/20/2009 [Sec. 160.5(d)]

Sec. 160.5 Billing, Delinquency, Lock-off and Turn-on (Cont'd.).

(e) Turn-On Charge. A turn-on charge of $35.00 will be made for turn-ons of meter services previously locked off at the request of a customer. Meters locked off for non-payment are subject to lock-off service charge as provided by Section 160.5(a) hereof. There will be no turn-on charge for a fire service meter turned on at the same time as the primary meter service.

(f) Damages for Wrongful Act. Any person who commits any of the following acts shall be charged as damages three (3) times the amount of the actual loss, or an estimate thereof, suffered by the District with a minimum of $100.00. Subject to the right of appeal as provided by Administrative Code Section 160.6, the decision of the District shall be final. Such person may also be prosecuted under Penal Code Section 498.

1. Divert, or cause to be diverted, District water without authorization or consent of the District.

2. Make, or cause to be made, any connection or reconnection with property owned or used by the District to provide water service without authorization or consent of the District.

3. Prevent any water meter from accurately performing its measuring functions by tampering or by any other means.

4. Tamper with any property owned or used by the District to provide water service.

5. Use or receive direct benefit from the District's water system, with knowledge of, or reason to believe that, the diversion, tampering or unauthorized connection existed at the time of the use, or that the use or receipt was without authorization or consent of the District.

There is a presumption that there is a violation of Section 160.5(f) if, on premises controlled by the customer or by the person using or receiving the direct benefit of District service, there is either, or both, of the following:

6. Any instrument, apparatus, or device primarily designed to be used to obtain District service without paying the full lawful charge therefor.

7. Any meter that has been altered, tampered with, or bypassed so as to cause no measurement or inaccurate measurement of District services received.

Per Ordinance No. 2012-04 Adopted 5/21/12 [Sec. 160.5(e) & (f)]

Article 160 Water Service - Rules and Regulations (Cont'd.)

Sec. 160.5 Billing, Delinquency, Lock-off and Turn-on (Cont'd.).

(g) Protection from Damage. No person shall maliciously, willfully or negligently break, damage, destroy, uncover, deface or tamper with any structure, appurtenance, or equipment which is part of the water works. The District will collect the cost of damages from the responsible party, including adding the damages to the customer's water bill.

Sec. 160.6 Appeal Procedures for Contesting Water Charges.

(a) Within five (5) days of receipt of a water bill, the customer has the right to initiate a complaint or request an investigation concerning services or charges as shown on the bill.

(b) Upon receipt of a written request for review, a hearing date shall be set before the District Review Manager. After evaluation of the evidence provided by the customer and the information on file with the District concerning the water charges in question, the Review Manager shall render a decision as to the accuracy of the water charges, and shall render a brief written summary of the decision.

1. If water charges are determined to be incorrect, a corrected invoice will be provided and the revised charges are due within ten (10) days after the date of invoice for revised charges. If payment is not received within the prescribed period of time, water service will be terminated, subject to the right of appeal to the Board of Directors, on the working day following the period allowed for payment. Water service will be restored only after outstanding water charges and any and all applicable re-connection charges and deposits are paid in full.

2. If the water charges in question are determined to be correct, the water charges are due at the time the decision of the Review Manager is rendered.

3. If the decision of the Review Manager is not to the satisfaction of the consumer, the customer may, within seven (7) days of the decision, request a hearing before the District Board of Directors at the next regular meeting.

Per Ordinance No. 194 Adopted 12/18/89 [Sec. 160.6]
Per Ordinance No. 2004-12 Adopted 7/6/04 [Sec. 160.5(g)]

Sec. 160.6 Appeal Procedures for Contesting Water Charges (Cont'd.)

(c) When a hearing before the Board of Directors is requested, the customer shall, in writing or by personal appearance, present evidence and reasons as to why the water charges in question are not accurate. The Board shall evaluate evidence presented by the consumer, as well as information on file with the District concerning the water charges in question, and render a decision as to the accuracy of said charges.

1. If the Board finds the water charges in question are incorrect, the customer will be re-invoiced for corrected charges and payment of the revised invoice is due within ten (10) days from the date of said invoice. If the revised charges remain unpaid after the prescribed period of time, water service will be terminated on the working day following the period allowed for payment. Service will be restored only after outstanding water charges and any and all applicable reconnection charges and deposits are paid in full.

2. If the Board finds that the water charges in question are correct, the customer will then pay the amount owing. If after the decision of the Board the charges remain unpaid, the water service in question will be disconnected on the next working day. Water service will be restored only after outstanding water charges and any and all applicable reconnection charges and deposits are paid in full.

(d) Recognition of and Allowance for Unusual Circumstances. Situations may occur which are beyond the ability of the customer to control. Because of this, it is necessary for the District to provide for flexibility in the administration of the rules and regulations governing the billing and collection of water consumed by District customers. The General Manager, or his authorized designee, is hereby authorized reasonable latitude in the implementation and administration of Article 160 within the following general guidelines:

1. Delinquent interest may be waived the first time incurred to recognize the customer's lack of knowledge of District policies.

2. Delinquent interest may by waived up to three months to allow time for a customer to pay a water bill in excess of three times the customer's normal bill.

3. The District's markup may be waived for a billing that is three times the normal bill and is clearly the result of a leak or a circumstance beyond the customer's control.

Per Ordinance No. 194 Adopted 12/18/89 [Sec. 160.6]
Per Ordinance No. 2000-09 Adopted 6/19/2000 [Sec. 160.6(d)]

Sec. 160.6 Appeal Procedures for Contesting Water Charges (Cont'd.)

(d) Recognition of and Allowance for Unusual Circumstances (Cont'd.).

4. Estimated bills for a meter that malfunctions for any reason may be computed in accordance with Article 160.5 (b).

5. Customers experiencing leaks in excess of 10 times normal consumption may have the consumption reduced to a maximum of 10 times normal consumption.

Sec. 160.7 Meter Service Exchange

(a) Increasing Meter Size. Customers desiring to increase the size of his/her existing meter to a larger meter size shall comply with the following:

1. All meters increased in size must conform to current District policies; i.e., backflow, additional costs, etc.

2. The larger size meter shall be in accordance with Sec. 160.4(a)(2), Meter Size Limitations.

3. The charges for the new meter shall be adjusted as follows:

A. The applicant shall pay a connection charge, in accordance with Sec. 160.4(a) hereof, for the larger meter.

B. The applicant shall pay equipment charges, in accordance with Sec. 160.4(b) hereof, for the larger meter. The equipment being replaced may include the meter, double check valve, reduced pressure backflow device and a pressure reducing valve.

C. The applicant shall pay meter capacity charges for the larger meter. The meter capacity charges for the larger meter shall be the difference between the capacity charge determined pursuant to Sec. 160.4(c)&(d) hereof for the new meter and the capacity charge determined pursuant to Sec. 160.4(c)&(d) for the existing meter, whether or not any capacity charges were paid when the existing meter was originally obtained.

4. If the new larger meter is not being installed in the same location as the old meter, the old meter may be left in temporary service until the new meter is installed, connected and activated. Temporary service shall not exceed two (2) years.

Per Ordinance No. 99-06 Adopted 10/4/99 [Sec. 160.7(a)]
Per Ordinance No. 2005-13 Adopted 12/19/05 [Sec. 160.7(a)(1)]

Sec. 160.7 Meter Service Exchange

(b) Reducing Meter Size. Customers desiring to replace an existing meter with one or more meters of a smaller size shall comply with the following:

1. All meters reduced in size must conform to current District policies; i.e., backflow, additional costs, etc.

2. The smaller meter(s) must serve the property or any portion of the property the original meter was installed to serve.

3. The purchase of the smaller meter(s) must be conducted as part of a single transaction at the time the larger meter is downsized.

4. The charges for the new meter shall be adjusted as follows:

   A. The applicant shall pay a connection charge in accordance with Sec. 160.4(a) hereof for each of the smaller meters.

   B. The applicant shall pay equipment charges in accordance with Sec. 160.4(b) hereof for each of the smaller meters. The equipment charges for one meter shall be reduced by the core value of the equipment being replaced. The equipment being replaced may include the meter, double check valve, reduced pressure backflow device, and a pressure reducing valve. The core value shall be as periodically determined by the General Manager.

   C. The applicant shall pay a VCMWD meter capacity charge pursuant to Sec. 160.4(c) hereof for each of the smaller meters less the capacity charge determined, pursuant to Sec. 160.4(c) hereof, for the existing meter, whether or not any capacity charges were paid when the existing meter was originally obtained. If a credit balance is remaining, a capacity credit may be issued pursuant to Sec. 160.4(e).

   D. The applicant shall pay a SDCWA capacity charge pursuant to Sec. 160.4(d) hereof for each of the smaller meters less the capacity charge determined, pursuant to Sec. 160.4(d) hereof, for the existing meter, whether or not any capacity charges were paid when the existing meter was originally obtained. No credit or refund shall be made for any unused credit balance.

5. If a new smaller meter is not being installed in the same location as the downsized meter, the old meter may be left in temporary service for a period not to exceed two years.

Per Ordinance No. 99-06 Adopted 10/4/99 [Sec. 160.7(a)(b)]
Per Ordinance No. 2005-13 Adopted 12/19/05 [Sec. 160.7(b)(1)]
Per Ordinance No. 2007-10 Adopted 7/16/2007 [Sec. 160.7(a)(3)]

Sec. 160.8 Meter Relocation. The installation of a water meter is appurtenant to a specific property. Any relocation of an existing meter is limited to a location to serve the property or any portion of the property the original meter was installed to serve.

(a) Customer Request. If the same size meter is only to be relocated, and if a service lateral is available for that parcel, the cost is $50. If a service lateral is to be installed by the District, the cost is the same as the current connection charge. (Refer to Administrative Code Section 160.4(a)).

Note: The relocated meter must conform to current District policies; i.e., backflow, additional costs, etc.

The District shall remove the existing meter when the new meter is installed. If requested by the applicant, the old meter may be left in temporary service until the new meter is installed, connected and activated. Temporary service shall not exceed two (2) years.

(b) VCMWD or Developer Requirement. In an attempt to eliminate parallel private water lines where new facilities are installed or provide for a more convenient or safer meter location, relocation of meters may be required.

If the meter must be relocated because of a VCMWD initiated and funded project, VCMWD will bear the cost of relocating the meter and backflow/reduced pressure device. Reconnection of private water lines to a relocated meter is the customer's responsibility. VCMWD will reimburse customer incurred out-of-pocket expenses up to $500 with proper verification. VCMWD will coordinate the property owner's connection to the new meter location.

If a property owner's meter must be relocated as a requirement of offsite development, VCMWD will require the proponent of the development activity to be responsible for the required relocation of the meter and backflow/reduced pressure device at no cost to the property owner. VCMWD will require the project's proponent to coordinate with the property owner prior to the initiation of work to relocate the meter and reconnect the customer's private water line.

(c) Change in Meter Size. If the property owner requests a change in meter size concurrently with the change in location, a downsize will be accomplished at no cost to the property owner. An increase in the meter size will require payment of additional capacity and installation costs by the property owner, as required by applicable sections of the Administrative Code.

Per Ordinance No. 2004-12 Adopted 7/6/04 [Sec. 160.8]
Per Ordinance No. 2005-12 Adopted 11/7/05 [Sec. 160.8(b)]
Per Ordinance No. 2005-12 Adopted 11/7/05 [Sec. 160.8(c)]

Sec. 160.9 One Ownership Per Meter Service. As recommended by the California Department of Public Health, only one ownership can be served per meter service, with the exception of condominium or townhouse developments where the homeowners' association is empowered to contract for utilities. Any violation of this section will be allowed 15 days to correct the violation before service is stopped.

Sec. 160.10 Water Serviceability Charge to Mobile Home Parks, Apartments and Other Multiple Units. A water serviceability charge in the amount of $1.00 per unit per month will be charged for all mobile home parks, motels, apartments and other residences classified as additional living units. This unit charge will not be applicable until six months after the opening of the units or when 50 percent occupancy is reached, whichever comes first.

Transient recreational vehicles parked within campgrounds will not be assessed a water serviceability charge. However, any mobile vehicle that maintains a temporary or permanent residency within a campground will be charged the serviceability charge.

Sec. 160.11 Excessive Flow Through Meter Services. When flows exceed the manufacturer's suggested maximums through customer's meters, inaccurate readings and meter breakage may occur. To reduce this flow, orifice plates may be inserted when and where needed.

Sec. 160.12 Backflow Prevention Devices. The State Health Department requires the District to comply with Title 17 of the California Administrative Code to have a Backflow Prevention Program. The District, since 1978, has had an active on-going cross connection control program through field inspections, file audits and a questionnaire filled out when service is initiated or transferred. Approved backflow devices will be installed adjacent to all new meter services by the District. Existing services that do not have the approved backflow device will receive notification from the District requiring them to purchase and install the proper device. The backflow device will be available for purchase at the District office, but it will be the responsibility of the property owner to install the device.

Per Ordinance No.2004-12 Adopted 7/6/04 [Sec. 160.12]

Sec. 160.12 Backflow Prevention Devices (Cont'd.)

Should an existing customer's use of the meter service connection be changed in such a way as to require installation of a Reduced Pressure Device or an Approved Double Check Device in order to meet the requirements of this section, it is the customer's responsibility to notify the District immediately. Purchase of the required device or parts can be made through the District, but the responsibility of installation is that of the customer. If the changes are not made within 30 days after proper notification, service may be interrupted.

The following approved backflow devices are required under the following conditions:

(a) Approved Double Check Valves. (The District's recognized approved list of devices is available at the District's office.)

1. On all services not requiring an approved Reduced Pressure Device.

2. On all service having an auxiliary water system, a private well or fire protection system. The Double Check Valves required in this section must be installed above ground with the same clearance required for the installation of the Approved Reduced Pressure Backflow Device. These devices shall be tested on an annual basis at the owner's expense.

(b) Approved Reduced Pressure Backflow Device. (The District's recognized approved list of devices is available at the District's office.)

1. Anywhere that fertilizer, livestock, medication or a vaccine, etc. is or may be introduced into the water system.

2. Anywhere a mortuary or commercial laundry facility is operated.

3. Any chemical processing plants, dairies, dental office, medical office, hospital/medical clinic, parks or campgrounds with dumps for recreational vehicles, nurseries, flower growers, green belt irrigation area, home health care, assisted living facility, strip mall, commercial/industrial building and veterinarian offices.

4. Anywhere that toxic concentrations of dangerous materials, insecticides, weed killing, etc. are being introduced into the system.

5. Anywhere reclaimed water is used.

Per Ordinance No. 255 Adopted 6/21/93 [Sec. 160.12]
Per Ordinance No. 255 Adopted 6/21/93 [Sec. 160.12(a)(2)]
Per Ordinance No. 255 Adopted 6/21/93 [Sec. 160.12(b)(1)]
Per Ordinance No. 98-01 Adopted 2/2/98 [Sec. 160.12(b)(5)
Per Ordinance No. 2004-12 Adopted 7/6/04 [Sec. 160.12(b)(2&3)]

Sec. 160.12 Backflow Prevention Devices (Cont'd.)

(c) Approved Air-Gap Separation. (This device is not obtainable at the District's office.)

1. Anywhere a sewage treatment plant is operated unless a reduced pressure backflow device is approved by the District.

(d) Fee Schedule. At the time of installation, inspection and testing by District personnel will be required. All devices will be inspected annually and repaired as necessary by the District and charged to the customer accordingly. The charges for installation, annual inspection and repairs are as follows:

FEE SCHEDULE

Meter Size	Approved Double Check Valve Section 160.12(A)	Approved Double Check Valve Section 160.12(A)(2)	Approved Reduced Pressure Backflow Preventer Section 160.12(B)	Approved RP With Domestic Service Tee Section 160.12(B)	Annual Inspection Charge – Backflow For Water Meter	Annual Inspection Charge – Backflow For Fire Meter	Repair Fees
¾"	$145	$240	$320	$425	$45	$30	Actual Labor & Materials
1"	$170	$295	$370	$480	$45	$30	"
1.5"	$270	$450	$510	$650	$45	$30	"
2"	$300	$700	$780	$920	$45	$30	"
3"	$1,150	$1,750	$1,720	$1,950	$45	$30	"

Per Ordinance No. 98-01 Adopted 2/2/98 [Sec. 160.12(c)(1)
Per Ordinance No. 2011-08 Adopted 8/15/11 [Sec. 160.12(d)]

Sec. 160.13 Detector Check Valve Assembly. Detector check valve assemblies shall be installed by the applicant, at the applicant's sole expense, in accordance with Article 180, Special Project Requirements, and the following:

(a) Application. Each applicant for a detector check valve assembly shall sign an application showing the location of the assemblies and the property for which it is to serve. The applicant will also submit a set of plans showing a proposed location of the assembly, the valving and the required fittings and vaults. The plans shall be approved by the District before ordering of material or installation of the facility.

(b) Installation. Installation of the assembly shall be by and at the expense of the property owner. Installation of the facility to the detector check meter shall be inspected by the District, and the District shall be notified as outlined in other areas under inspection.

(c) Charges. It is the intent of the District to provide water for fire protection at no cost to the customers in the District. However, a detector check meter shall be installed for the purpose of detecting any usage of water other than for fire protection. For the installation of the detector check meter, the applicant shall pay a fee the same as that for the installation of a standard ¾" meter.

Sec. 160.14 Meters Placed on Leased Land. When meters are placed on leased land, the purchaser of the meter service must either agree to leave the meter with the property when the lease expires or must post a reasonable bond as determined by the General Manager to assure payment of the water used. The owner of the property must give written approval of either method, and the District or the General Manager is not liable if the bond posted is not sufficient to cover the actual bills. If the meter purchaser posts a bond and then requests the meter service to be moved at any later date, he must pay the full relocation cost as shown in Section 160.8.

Sec. 160.15 Responsibility for Unpaid Bill. An unpaid bill is the responsibility of the person in whose name the meter service is held. In the event the service is in the name of a renter or lessee, the ultimate responsibility for the bill is the legal owner of the property as shown on the County Assessor's tax rolls. Change of ownerships is covered under Article 160.17 of this Code.

Per Ordinance No. 2007-07 Adopted 5/21/07 [Sec. 106.13]

Sec. 160.16 Collection of Delinquent Accounts.

(a) If a bill remains unpaid, the District will attempt to collect the amount due from the person or persons responsible as shown in the District's records. If the bill remains delinquent for a period of over three (3) months from billing date it will be written off as a bad debt allowance and appropriate measures to make collection will be made. Measures may include placing a lien on the property or adding the delinquent amount to the property tax rolls in accordance with California Water Code Sections 72100 and 72102.

(b) When a customer has more than one meter service, any outstanding amounts owing against any one of the customer's existing accounts will be automatically applied to the remaining account(s). In doing so, all meter services will be considered delinquent and shall be shut off until such time as the entire outstanding amount is paid.

Sec. 160.17 Posting of Security Deposit.

(a) Fixing Amount of Deposit. To insure reasonable collections, any customer desiring service from the District, who has had a service discontinued for nonpayment of a bill, or other justifiable cause, may be required to post a security deposit equal to the highest two (2) months bills during the last twelve (12) months with a minimum of $100.00 before service is restored. The deposit is in addition to the payment of all charges due and any applicable turn-on charges.

(b) Refund. The security deposit will be returned to the depositor two (2) years after the last lock off for nonpayment or when the account is paid in full at termination of service whichever occurs first.

(c) Form of Deposit. The deposit can be by cash, certificate of deposit, letter of credit or bond or any other comparable guarantee subject to the approval of the District's Finance Director.

Per Ordinance No. 2000-09 Adopted 6/19/2000 [Sec. 160.17(a)]
Per Ordinance No. 2012-04 Adopted 5/21/12 [Sec. 160.16(a)]
Per Ordinance No. 2012-04 Adopted 5/21/12 [Sec. 160.16(c) removed]

Sec. 160.18 Transfer of Meter Service and New Ownerships. A water meter as provided by the District is a service and the actual ownership of the meter remains with the District. Transfer of service to a new tenant or owner shall be in accordance with the following:

(a) When a new owner acquires property upon which a meter is already existing, service from said meter will be provided after transfer of the account has been completed.

If an application for service is not signed by the applicant and received by the District within 30 days of the request for transfer, service may be terminated until the signed application is received and the meter service turn-on charge provided in Section 160.5(e) will apply.

When a renter or lessee requests service, the District will require a signed authorization from the owner of the subject property. In addition, the owner will receive a memo bill monthly. If this authorization is not received within 60 days of the request, the account may be flagged that no future renters will be allowed to establish service on that property and future service will be in the name of the property owner only.

(b) If an account has a credit balance in excess of $10.00 at the time a new owner assumes an existing account, the credit will automatically be forwarded to the person closing the account.

If the credit is less than $10.00, a disbursement will not be forwarded unless requested by the customer.

(c) In addition to any other applicable charges, the charge for transfer of service from one customer to a succeeding customer shall be $10.00 per meter transferred. The charge will not apply to a fire service meter transferred at the same time as the primary meter service.

Sec. 160.19 Cla-Valves. Upon request by water users of the Valley Center Municipal Water District, an adequate Cla-Valve, or approved equal, may be installed in front of the meter as long as the water user pays all expenses including the installation. The District will install the valve and will maintain it as part of the system.

Per Ordinance No. 2012-04 Adopted 5/21/12 [Sec. 160.18(a)(b)
Per Ordinance No. 2004-18 Adopted 12/6/04 [Sec. 160.18(c)]

Sec. 160.20 Pressure Reducing Valves.

(a) Customer Responsibility. The District shall assume no responsibility for water pressure regulation within a customer's service area. The customer shall be responsible for providing adequate safeguard measures for the customer's water system wherever pressure regulation is necessary.

(b) Requirement for Installation in New Construction. Customers making application for water service for new construction for residential, commercial or industrial use shall be required to install an appropriate pressure regulation device for such service in accordance with the California Plumbing Code.

(c) High System Pressure. If water pressure at the meter location is over 200 PSI, a Pressure Reducing Valve (PRV) must be installed on the District's side of the meter at the customer's expense.

The District shall install the required Pressure Reducing Valve (PRV) for the following cost to the customer:

Meter Size	3/4"	1"	1-1/2"	2"	3"
Cost for PRV	$65	$90	$190	$250	$1,200

Sec. 160.21 Meter Testing. When a customer advises the District that he feels his meter is registering inaccurately and District personnel have checked the complaint and feel the meter is working properly, the customer may, by making a $55.00 deposit with the District, have his meter tested on the District's calibrated test bench. If the meter is found to be registering at a rate between 100.5% and 103%, the deposit will be returned to the customer and the water bill being disputed shall be adjusted to reflect the percentage over 100%. If the meter is found to be registering accurately (or low), the deposit will be retained by the District to help offset the labor cost of pulling and testing the meter. The deposit noted above may be waived by the District one time per owner at the discretion of the District.

If the meter is registering higher than 103%, an estimated bill shall be determined in the following manner (same as a Stuck Meter - Section 160.5-b).

Per Ordinance No. 2012-09 Adopted 10/15/12 [Sec. 160.20(a)(b)(c)]
Per Ordinance No. 2009-10 Adopted 7/20/09 [Sec. 160.21]

Sec. 160.21 Meter Testing (Cont'd).

The customer's water usage during the month immediately preceding the billing cycle in which the meter registered incorrectly shall be used in calculating the estimated bill. The District's water usage during that same month shall be compared to its current month's water usage in order to determine the percentage of water increase or decrease that has occurred during the time the meter registered incorrectly. Once the increase or decrease has been established, that percentage shall be added to, or subtracted from the customer's water usage for the previous month, thereby constituting an estimated usage for the current month.

NOTE: If the Meter Services Supervisor should find that a meter is registering correctly, but unequivocally determines the water consumption could not have occurred, a recommendation may be submitted to the General Manager requesting an estimated bill be computed.

Sec. 160.22 San Diego County's Project Facility Letters. Upon receipt of Project Facility Availability (PFA) or Project Facility Commitment (PFC) form and payment of $50.00, the District will complete the appropriate information as required for the project.

Sec. 160.23 Residential Fire Service. When requested by applicant, a water service connection for a residential fire sprinkler system may be provided in accordance with the following rules and regulations:

(a) Application – Water Meter For Residential Fire Sprinkler System. Each applicant for a meter for residential fire sprinkler system shall make application in accordance with Article 160, Water Service – Rules and Regulations. It is the District's requirement for a separate dedicated water meter for residential fire sprinkler systems to reduce the risk of service interruption in the event of nonpayment for domestic water. District staff will provide the applicant or his representative estimated pressure and flow data about the water distribution system at the point of service, and information about a typical water meter installation. It shall be the responsibility of the applicant and/or representative to determine the size of the meter and service lateral that is required for this service.

(b) Installation – Water Meter For Residential Fire Sprinkler System. A meter for a residential fire sprinkler system shall be installed, together with the adequate backflow device, for the purpose of detecting any usage of water other than for fire protection. Installation of the meter and backflow shall be made by the District with the backflow inspected annually by the District.

Per Ordinance No. 2006-06 Adopted 5/1/06 [Sec. 160.22]
Per Ordinance No. 2007-07 Adopted 5/21/2007 [Sec. 160.23]

Sec. 160.23 Residential Fire Service (Cont'd).

(c) Charges – Water Meter For Residential Fire Sprinkler System. Installation of the meter and backflow shall be at the expense of the property owner. For the Installation of these facilities, the applicant shall pay fees equal to those charged for the same size meter and backflow assembly as described in Section 160.4 and 160.12. The District's and the San Diego County Water Authority's (SDCWA) Meter Capacity charges are waived for residential fire sprinkler meters.

The monthly service fee for the residential fire sprinkler meter shall be established as described in Section 160.3. Residential fire sprinkler systems shall be subject to charges for annual testing, necessary repairs and replacement of required backflow prevention devices.

(d) Unauthorized Use of Residential Fire Sprinkler System. It is the intention of the District to provide water for fire protection at no cost to the customers of the District. Unauthorized water used through this meter will be billed to this customer at three (3) times the then domestic/commercial water commodity rate as set forth in Sec. 160.3 of the District's Administrative Code. Repeated unauthorized use may result in prosecution by the District under section 498 of the California Penal Code.

Authorized use of the residential fire sprinkler system shall include water for fire suppression and up to two hundred-cubic foot units annually (1,495 gallons) for system testing and maintenance.

Sec. 160.24 Temporary Water Service. Temporary water service may be provided by this section. Temporary water service is subject to reduction or complete interruption in delivery based upon water supply conditions as determined by the VCMWD, Metropolitan Water District and/or the San Diego County Water Authority.

(a) Construction Meter Service. A "construction meter" shall be a 2-inch or larger meter connection to a blow-off or fire hydrant.

1. A contractor/applicant requesting a construction meter service installation shall be required to give a 24 hour notice and pay a minimum $1,200.00 deposit prior to connection, which will be used to defray the following:

Per Ordinance No. 2007-10 Adopted 7/16/2007 [Sec. 160.23(c)]
Per Ordinance No. 2007-10 Adopted 7/16/2007 [Sec. 160.23(d)]
Per Ordinance No. 2007-10 Adopted 7/16/2007 [Sec. 160.24(a)]
Per Ordinance No. 2009-10 Adopted 7/20/09 [Sec. 160.24(a)]

Sec. 160.24 Temporary Water Service (Cont'd).

(a) Construction Meter Service (Cont'd.).

A. $90.00 installation, removal and processing charge ($50.00 for nonpotable Lake Turner meter).
B. Cost of non-reusable materials.
C. $45.00 relocation charge each time meter location is changed.
D. The contractor/applicant shall be responsible for any damage to the construction meter while on his/her job site.
E. The contractor/applicant shall be responsible for theft of the construction meter while on his/her job site.

2. In the event costs, including the cost to repair or replace due to damage or theft, exceed the deposit, the balance will be paid by the applicant upon request.

3. The following charges will be monthly:

A. Monthly service and rental charge of $148.77 for potable construction service and $89.26 for nonpotable service (prorated as appropriate).

B. Purchase of water as provided by Section 160.3, including applicable pump zone charges.

The construction meter may not be used as an interim household meter while waiting installation of a domestic service. All construction meters shall be limited to a 60 day rental period per construction project. Requirements beyond this period require advance approval of the District. The District may designate the blow off, hydrant or other source of water that is to be used for construction water.

Per Ordinance No. 2015-17 Adopted 11/16/15 [Sec. 160.24(a)(3)(A)]

Sec. 160.24 Temporary Water Service (Cont'd).

(b) Service Jumper. A "Service Jumper" shall be a temporary connection to the District's domestic water service lateral for the purpose of providing water during the construction of structures in a development prior to the completion of the surface improvements such as final grading and landscaping. The Jumper is a ¾" metered connection that has basic backflow protection. In order for a jumper connection to be approved, the water facilities must be completed and accepted into service by the District and an application for water service completed and accepted by the District. A contractor requesting Service Jumpers must provide five (5) working days' notice to the District and pay the following;

1. $145 for materials, assembly and installation by VCMWD forces, plus a one month advance payment of the service charge.

2. $45 per month service charge, or fraction thereof, for water to pressurize the private system and incidental uses during construction.

3. Purchase of water as provided by Section 160.3, including applicable pump zone charges.

A "Service Jumper" is limited to use during home construction and must be removed prior to occupancy.

Sec. 160.25 Construction Water Permit. Single day use permits will be issued authorizing the drawing of construction water from a fire hydrant or blow off to a water truck within the District in accordance with the following fee schedule per a 24 hour period.

Used Via a Water Truck With a Capacity of:	Potable	Nonpotable
2,500 gal. or less	$260.00	$170.00
3,000 gallons	310.00	200.00
3,500 gallons	360.00	235.00
4,000 gallons	410.00	265.00
5,000 gal. or more	515.00	335.00

The permit must be kept at the job site and available for verification at all times when drawing water, and is valid only on the date(s) listed. The District may require the use of a construction meter.

Per Ordinance No. 2011-11 Adopted 11/21/11 [Sec. 160.24(b)]
Per Ordinance No. 2015-17 Adopted 11/16/15 [Sec. 160.25]

Sec. 160.26 Bankruptcy of Customer. Pursuant to the Bankruptcy Act (P.L. 95-589, 11 U.S.C., Section 366), the District shall not alter, refuse or discontinue service to, or discriminate against, a customer, or a trustee of a customer, solely on the basis that a debt owed by the customer to the District for service rendered before the order for relief was not paid when due.

It shall be the responsibility of the customer to supply the District with a copy of any applicable order for relief. The District shall discontinue service if neither the customer, nor the trustee, within 20 days after the date of the order for relief, furnishes adequate assurance of payment in the form of a deposit for service after such date. As used herein, "adequate assurance of payment" shall mean a cash deposit in an amount equal to two times the highest of the last twelve billings rendered to the customer, or for the customer's property if customer has not occupied the property for that period of time prior to the order for relief. As used herein, "order for relief" shall have the same meaning as given to it in the Bankruptcy Act. The commencement of a voluntary case under the Bankruptcy Act shall constitute an order for relief. Such deposit shall be refunded seven years after completion of all bankruptcy proceedings or at termination of service provided all amounts due District for service provided after order of relief have been paid. Deposit shall also be refunded if customer voluntarily pays District the debt originally discharged in bankruptcy. Service may be discontinued in accordance with the rules of the District upon nonpayment for service rendered after the order of relief.

Sec. 160.27 Conditions of Service. Notwithstanding any provision to the contrary, the Valley Center Municipal Water District does not guarantee or ensure any particular condition of flow or pressure in its system, and the District shall not be liable to any customer for any damage to the customer's property for fluctuations in the pressure at which water is delivered or for unavailability of water. Further, nothing in these Rules and Regulations obligates the District to correct low pressure conditions, to increase pressure, to correct high pressure conditions, to decrease pressure or to compensate the customer in any manner for the customer's cost to increase or decrease pressure. District staff provides data and information about the District's system and how it normally operates to its customers so they can use that information in making plans. When significant changes to the normal conditions are anticipated, the District will endeavor to notify the affected customers. The District reserves the right to make changes and allow changes to occur at any time, without notice.

Per Ordinance No. 2004-07 Adopted 5/17/04 [Sec. 160.27]
Per Ordinance No. 2004-12 Adopted 7/6/04 [Sec. 160.27]

Article 230

VCMWD Water Supply Management and Shortage Condition Response Program

Article 230 Water Supply Management and Shortage Condition Response Program

Sec. 230.1 Declaration of Necessity and Intent

(a) This Article establishes water management requirements necessary to sustain reliable water resources by encouraging reasonable water use efficiency and conservation measures and practices, impose water use restrictions when appropriate, and enable effective water supply planning. It will assure the reasonable and beneficial use of water, prevent waste of water, prevent the unreasonable use of water, and of a suspected or actual leak prevent the unreasonable method of use of water within the District. It will also serve to balance short and long-term water demands with available supplies and further the public health, safety, and welfare, recognizing that water is and will always be a valuable, scarce and limited natural resource that requires careful management at all times, irrespective of water supply availability or hydrologic conditions.

(b) This Article establishes regulations to be implemented during times of normal water supply and hydrologic conditions as well as declared water shortages, or declared water shortage emergencies. It establishes four levels of water supply management and shortage response actions to be implemented, with increasing restrictions on water use for the District's customers and the District itself in response to worsening water supply conditions and decreased short-term, intermittent, and long-term water supply availability.

(c) A Water Supply Management **Watch** Condition – Level 1 ("Level 1") shall be deemed to exist at all times, irrespective of water supply availability or hydrologic conditions. During a "Level 1" condition, water conservation measures, efficient water use measures and water-use restrictions, are voluntary and will be reinforced through local and regional public education and awareness measures that may be funded in part by the District. During all other conditions—Water Supply Shortage **Alert** Condition ("Level 2"), Water Supply Shortage **Critical** Condition ("Level 3"), and Water Supply Shortage **Emergency** Condition ("Level 4")—all prescribed water conservation measures, efficient water use measures and water-use restrictions, if deemed warranted, are mandatory unless excepted herein, and become increasingly restrictive in order to attain escalating water use efficiency and conservation goals.

Per Ordinance No. 2015-06 Adopted 04/20/15 (Art. 230)

Sec. 230.1 Declaration of Necessity and Intent (Cont'd)

(d) The water use efficiency, conservation measures and water use restrictions established by this Article are mandatory, unless excepted herein, and violations are subject to criminal, civil, and administrative penalties and remedies specified in this Article and as provided in District Administrative or Municipal Code.

Sec. 230.2 Definitions

(a) The following words and phrases whenever used in this chapter shall have the meaning defined in this Article:

1. "Construction Water" means water used for construction purposes, including, but not limited to grading, compaction, dust control, clean-up, and hydro-seeding, or other uses as determined by the General Manager.

2. "Agricultural Water Use" refers to water used for the growing or raising, in conformity with recognized practices of husbandry, for the purpose of personal use, donation, commerce, trade, or industry, or for use by public, educational or correctional institutions, for agricultural, horticultural or floricultural products, and produced: (1) for the market, (2) for the feeding of fowl or livestock produced for human consumption or for the market, (3) for the feeding of fowl or livestock for the purpose of obtaining their products for the market, (4) for personal consumption, or (5) donation for consumption. Except where stated, provisions of this Article do not apply to Agricultural Water Use as defined herein.

3. "Immediate Emergency" means a short-term operational limitation due to breakage or failure of dam, reservoir, aqueduct, pump, treatment system, pipeline, conduit, a natural or man-made disaster, or any other disruption of the District's water supply or delivery system.

4. "Person" means any natural person, corporation, public or private entity, public or private association, public or private agency, government agency or institution, educational institutions, or any other user of water provided by the District.

5. "State" means the state of California, including any department or regulatory agency thereof.

Per Ordinance No. 2015-15 Adopted 10/05/15 (Sec. 230.2(a)2)

Sec. 230.2 Definitions (Cont'd)

6. "Water Authority" means the San Diego County Water Authority.

7. "Water Shortage Emergency" means a condition existing within the District in which the ordinary water demands and requirements of the persons within the District cannot be satisfied without depleting the water supply of the District to the extent that there would be insufficient water for human consumption, sanitation and fire protection. A water shortage emergency includes a threatened water shortage, in which the District determines that its supply cannot meet an increased future demand.

Sec. 230.3 Application

(a) The provisions of this Article apply to any person in the use of any water provided by the District.

(b) This Article is intended solely to further the conservation of water. It is not intended to implement any provision of federal, State, or local statutes, ordinances, or regulations relating to protection of water quality or control of drainage or runoff. Refer to the local jurisdiction or Regional Water Quality Control Board for information on any storm water ordinances and storm water management plans.

(c) Nothing in this Article is intended to affect or limit the ability of the District to declare and respond to an emergency, including an emergency that affects the ability of the District to supply water or limit the ability of the District to prevent what is determined to be a wasteful or unreasonable use of water even though it may not specifically be identified as such in this Article.

(d) The provisions of this Article do not apply to use of water from private wells, surface sources or to reclaimed water.

(e) Except where stated, nothing in this Article shall apply to Agricultural Water Use as defined in Section 230.2(a). All water used for non-agricultural purposes is subject to this Article including use of water subject to a special supply program such as the Water Authority Transitional Special Agricultural Water Rate Program (TSAWR) or the District Commercial Agricultural Full Price (CAFP) customer classification.

Per Ordinance No. 2015-15 Adopted 10/05/15 (Sec. 230.3(c) & (e))

Sec. 230.3 Application (Cont'd)

(f) If the State or a wholesale water provider, through executive action, emergency legislation or other actions, imposes conditions, requirements, or procedures that are not included in this Article, the General Manager is authorized to implement such other actions, conditions, requirements or procedures as are reasonably required to bring the District, in each Water Supply Level, into functional conformity with such conditions, requirements, or procedures. In such an event, the General Manager shall notify the Board of Directors of any such implemented actions, conditions, requirements or procedures at the next regular Board Meeting unless a special meeting is warranted and called for by the Board President or Vice President in the President's absence.

Sec. 230.4 Water Supply Management Watch Condition – Level 1

(a) A Level 1 exists at all times and irrespective of the availability of water supplies or hydrologic conditions, and the water use restrictions set out herein are best management practices.

(b) During a Level 1, the District will increase its public education and outreach efforts to emphasize increased public awareness of the need to use water in a beneficial and non-wasteful manner by implementing the following voluntary water use and conservation practices:

1. Not washing down paved surfaces, including but not limited to sidewalks, driveways, parking lots, tennis courts, or patios, except when it is necessary to alleviate safety or sanitation hazards.

2. Preventing water waste resulting from inefficient landscape irrigation, such as runoff, low head drainage, or overspray, etc. Similarly, stop water flows onto non-targeted areas, such as adjacent property, non-irrigated areas, hardscape, roadways, or structures. This applies to any person using any water provided by the District including Agricultural Water Use.

3. Irrigating residential and commercial landscape, outside ornamental landscape or turf grass, before 10:00 a.m. and after 4:00 p.m. only. Watering is permitted at any time when a drip/micro-irrigation system/equipment is used. This section shall not apply to Agricultural Water Use.

4. Irrigation of potted plants is permitted at any time with a hand-held hose equipped with a positive shut-off nozzle, a bucket, or when a drip/micro-irrigation system/equipment is used.

Per Ordinance No. 2015-15 Adopted 10/05/15 (Sec. 230.4(b)2, 3 & 4)

5. Irrigate landscaped areas, including trees and shrubs located on residential and commercial properties that are not irrigated by a landscape irrigation system on the same schedule set forth in section 230.4(b)(3) by using a bucket, or hand-held hose equipped with a positive shut-off nozzle.

6. Using re-circulated water to operate ornamental fountains.

7. Washing vehicles using a bucket and a hand-held hose with positive shut-off nozzle, mobile high pressure/low volume wash system, or at a commercial site that re-circulates (reclaims) water on-site. Avoid washing during hot conditions when additional water is required due to evaporation.

8. Repairing all water leaks within five (5) days of notification by the District of a suspected or actual leak unless other arrangements are made with the General Manager. This applies to any person using any water provided by the District including Agricultural Water Use.

9 Serving drinking water only upon customer request in all drinking and eating establishments, including restaurants, hotels, cafes, cafeterias, bars or other public places where food or drink are served and or purchased.

10. Hotels, motels, timeshares and resort facilities shall prominently display notice to their guests of the option of not having towels and linens laundered on a daily basis.

Per Ordinance No. 2015-15 Adopted 10/05/15 (Sec. 230.4(b)5 & 8)

Article 230 Water Supply Management and Shortage Condition Response Program

Sec. 230.5 Water Supply Shortage Alert Condition – Level 2

(a) A Level 2 condition may apply when the Water Authority notifies its member agencies that due to an actual or anticipated reduction in supplies to the Water Authority, when water supply conditions specific to the District have limited available water supplies and a commensurate consumer demand reduction of up to 20 percent is required in order to balance demands with supplies anticipated to be available for the foreseeable future, or as otherwise determined by the District's Board of Directors in its reasonable discretion. The District's Board of Directors shall declare the existence of a Level 2 and implement the mandatory Level 2 water conservation measures identified herein. Additionally, if the District's Board of Directors declares a Water Shortage Emergency in the manner and on the grounds provided in California Water Code section 350 *et seq.*, during a Level 2 condition, such declaration shall remain in effect during the period of emergency and until the supply of water available for distribution within the District has been replenished or augmented.

(b) During a Level 2, all persons using District supplied water shall comply, on a mandatory basis, with conservation practices and measures required during a Level 1 and shall also comply with the following additional mandatory conservation measures to achieve up to a 20 percent reduction in demand:

1. Repairing all leaks within seventy-two (72) hours of notification by the District of a suspected or actual leak unless other arrangements are made with the General Manager. This applies to any person using any water provided by the District including Agricultural Water Use.

2. Using recycled or non-potable water for construction purposes when available and economically feasible as determined by the applicant for the temporary construction water account.

3. Limiting residential and commercial landscape irrigation, outside ornamental landscape or turf grass, to before 10:00 a.m. or after 4:00 p.m. only and to no more than ten minutes (10) or fewer per watering station for three (3) or fewer assigned days per week as specified on a schedule established by the General Manager and posted by the District; provided however, that landscape irrigation using a drip/micro-irrigation system/equipment is not subject to the ten minute (10) restriction. Watering shall be prohibited during and for 48-hours after measurable rainfall within the District. This section shall not apply to Agricultural Water Use.

Per Ordinance No. 2015-15 Adopted 10/05/15 (Sec. 230.5(b)1 & 3)

Sec. 230.5 Water Supply Shortage Alert Condition – Level 2 (Cont'd)

(c) Unless the water supply shortage is associated with an Immediate Emergency as determined by the General Manager, upon declaration of Level 2, all non TSAWR meters without pre-existing allocations shall be provided an allocation of 10 Hundred Cubic Feet (HCF) per equivalent ¾ inch meter, per month for months in the base period for which there is no usage history or a usage history of less than 10 HCF. Such allocation shall be subject to future reductions as determined necessary by the Board of Directors as well as the appeal process provided for in Section 230.11 of this Article. Water allocations for meters in the TSAWR program shall be based upon water supply reduction plans adopted by the Board for those specific programs.

(d) The following shall apply if the District's Board of Directors declares a Water Shortage Emergency in the manner and on the grounds provided in California Water Code Section 350, *et seq.*, during a Level 2:

1. Unless the water supply shortage is associated with an Immediate Emergency as determined by the General Manager, upon the declaration of a Level 2, only existing and new annexation proposals which can provide to the District additional water resources offsetting the net water demand impact for the specific projects in the annexing area and providing 0.5 acre feet per year of additional supply per unit of development in the annexing area to meet firm Municipal and Industrial demands within the existing District service area will continue to be processed or have applications considered by the District. For the purposes of this subsection, "additional water resources" shall be defined as:

   A. Water resources originating from outside the current service area of the District; and

   B. Water resources resulting from financial support from the annexing lands for local water resource development opportunities within the District determined to be available for annexing territories. Local resource development opportunities available for annexing lands shall be identified after first determining the level of local resource development opportunities which may be required to accommodate development on lands currently within the District boundaries.

Per Ordinance No. 2015-06 Adopted 04/20/15 (Art. 230)

Sec. 230.6 Water Supply Shortage Critical Condition – Level 3

(a) A Level 3 may apply when the Water Authority notifies its member agencies that due to an actual or anticipated reduction in supplies to the Water Authority, or when water supply conditions specific to the District have limited available water and supplies and a commensurate consumer demand reduction of greater than 20 percent up to 40 percent is required in order to balance regional demands with supplies anticipated to be available for the foreseeable future, or as otherwise determined by the District's Board of Directors in its reasonable discretion. The District's Board of Directors shall declare the existence of Level 3 and implement the mandatory Level 3 conservation measures identified herein. Additionally, the District Board of Directors shall declare a Water Shortage Emergency upon adopting findings supporting a Water Shortage Emergency in a manner and on the grounds provided in California Water Code Section 350 *et seq.* If the District's Board of Directors declares a Water Shortage Emergency, such declaration shall remain in effect during the period of the emergency and until the supply of water available for distribution within the District has been replenished or augmented.

(b) During a Level 3 all persons using District supplied water shall comply, on a mandatory basis, with conservation practices and measures required during Level 1 and Level 2, and shall also comply with the following additional mandatory conservation measures to achieve up to a 40 percent reduction in demand:

1. Limiting residential and commercial landscape irrigation, outside ornamental landscape or turf grass, to before 10:00 a.m. or after 4:00 p.m. only and to no more than ten minutes (10) or fewer per watering station for two (2) or fewer assigned days per week as specified on a schedule established by the General Manager and posted by the District provided however, that landscape irrigation using a drip/micro-irrigation system/equipment is not subject to the ten minute (10) restriction. This section shall not apply to Agricultural Water Use.

2. Watering landscaped areas, including trees and shrubs located on residential and commercial properties, and not irrigated by a landscape irrigation system governed by section 230.6(b)(1), on the same schedule set forth in section 230.6(b)(1) by using a bucket, or hand-held hose with a positive shut-off nozzle.

Per Ordinance No. 2015-15 Adopted 10/05/15 (Sec. 230.6(b)1 & 2)

3. Not filling or re-filling ornamental lakes or ponds, except to the extent needed to sustain aquatic life, provided that such animals are of significant value and have been actively managed within the water feature prior to declaration of a water supply shortage response level under this Article.

4. Not washing vehicles except at commercial carwashes that re-circulate water, or by high pressure/low volume wash systems.

5. Repairing all leaks within forty-eight (48) hours of notification by the District unless other arrangements are made with the General Manager. This applies to any person using any water provided by the District including Agricultural Water Use.

6. Using recycled or non-potable water for construction purposes as defined in Section 230.2 (a)(1) of this Article.

(c) The following shall apply if the District's Board of Directors declares a Water Shortage Emergency in the manner and on the grounds provided in the California Water Code Section 350, *et seq.*, during a Level 3, unless the water supply shortage is associated with an Immediate Emergency as determined by the General Manager:

1. All new development processing, consisting of the issuance of new statements of ability to serve (PFA/PFC letters, Concept Approvals, or Agency Clearance letters) shall be subject to limitations. Only projects with:

   A. Existing meter capacity; or

   B. Those providing substantial evidence that net water demands for the project will be offset prior to the provision of a new water meter(s) to the satisfaction of the District through:

      i. The development of local water resources or

      ii. Participation in a local or regional net demand offset program,

   will continue to be processed.

Per Ordinance No. 2015-15 Adopted 10/05/15 (Sec. 230.6(b)5)

2. Only existing annexation proposals which can provide to the District additional water resources which offset the net water demand impact for the specific projects in the annexing area and provide 0.5 acre feet per year of additional supply per unit of development in the annexing area to meet firm Municipal and Industrial demand within the existing District service area will continue to be processed. For the purposes of this subsection, "additional water resources" shall be defined as water resources originating from outside the current service area of the Water Authority and not through participation in offset programs within the service area of the District or the Water Authority.

3. No new temporary or permanent potable water meters shall be provided, except under the following circumstances:

   A. A new meter(s) has been purchased, a valid agency clearance letter or some other form of service commitment has been previously issued by the District, or meter is for a project meeting the requirements of subsection 230.6 (c)(1) and (c)(2), above. Meter(s) provided under this provision shall be subject to the conditions established in Section 230.5(c) of this Article above.

   B. The meter(s) results from the downsizing of an existing larger meter and the new meter(s) is apportioned a share of the base year allocation of the pre-existing larger meter, or if there is no base year allocation for the pre-existing larger meter, then the new meter(s) is provided an allocation as determined by Section 230.5 (c) of this Article.

   C. The meter is necessary to protect the public's health, safety, and welfare.

Article 230 Water Supply Management and Shortage Condition Response Program

Sec. 230.7 Water Supply Shortage Emergency Condition- Level 4

(a) A Level 4 condition may apply when the Water Authority Board of Directors declares a Water Shortage Emergency and notifies its member agencies, when water supply conditions specific to the District have limited available water and supplies, that a demand reduction of more than 40 percent is required in order to balance regional demands with the supplies anticipated to be available to the Water Authority for the foreseeable future, or as otherwise determined by the District's Board of Directors in its reasonable discretion. The following shall apply if the District's Board of Directors declares a Water Shortage Emergency in the manner and on the grounds provided in the California Water Code Section 350, *et sec,* during a Level 4, unless the water supply shortage is associated with an Immediate Emergency as determined by the General Manager.

(b) During a Level 4, all persons using District supplied water shall comply on a mandatory basis with conservation practices and measures required during Level 1, Level 2 and Level 3 and shall also comply with the following additional mandatory conservation measures to achieve a reduction of more than 40 percent in demand:

1. Stopping all residential and commercial landscape, outside ornamental landscape or turf grass irrigation. This restriction shall not apply to the following categories of use:

   A. Maintenance of trees and shrubs that are watered on the same schedule set forth in section 230.6 (b)(1) by using a bucket, or hand-held hose with a positive shut-off nozzle;

   B. Maintenance of fire resistant landscaping necessary for fire protection as specified in writing by the Fire Marshal of the local fire protection agency having jurisdiction over the property to be irrigated;

   C. Maintenance of existing landscaping for erosion control;

   D. Maintenance of plant materials identified to be rare or essential to the well-being of rare animals;

Per Ordinance No. 2015-15 Adopted 10/05/15 (Sec. 230.7(b))

E. Maintenance of landscaping within active public parks and playing fields, day care centers, school grounds, cemeteries, and golf course greens, provided that such irrigation does not exceed two (2) days or fewer per week according to the schedule established under section 230.6 (b)(1);

F. Watering of livestock;

G. All Agricultural Water Use; and

H. Public works projects and actively irrigated environmental mitigation projects.

2. Repairing all water leaks within twenty-four (24) hours of notification by the District unless other arrangements are made with the General Manager. This applies to any person in the use of any water provided by the District including Agricultural Water Use.

(c) Unless the water supply shortage is associated with an Immediate Emergency as determined by the General Manager, upon the declaration of a Water Shortage Emergency in the manner and on the grounds provided in California Water Code section 350 *et seq.*, during a Level 4, any and all development and annexation processing with associated direct water usage shall be terminated and no new temporary or permanent potable water meters shall be provided under any circumstance until the Level 4 condition abates, except for those meters required to protect public health and safety.

Per Ordinance No. 2015-15 Adopted 10/05/15 (Sec. 230.7(b))

Article 230 Water Supply Management and Shortage Condition Response Program

Sec. 230.8 Procedures for Determination and Notification of Water Supply Shortage Condition Levels

(a) A Level 1 is deemed to exist at all times.

(b) Unless the water supply shortage is associated with an Immediate Emergency as determined by the General Manager, the existence of a Level 2, 3, or 4 condition may be declared by the Board of Directors by adoption of a resolution at a regular or special meeting held in accordance with State law.

Additionally, the Board may declare a Water Shortage Emergency in accordance with the procedures specified in California Water Code sections 351 and 352. Following at least a seven (7) day notice of the meeting at which the declaration will be made, the District Board of Directors may declare the existence of a Water Shortage Emergency during a Level 2, 3, or 4 by the adoption of a resolution at any regular or special meeting held in accordance with State law. The mandatory conservation measures applicable to a Level 4 condition shall take effect on the tenth (10) day after the date the response level is declared.

The General Manager may publish a notice of the determination of the existence of a Level 2, 3, or 4 in one or more newspapers, including a newspaper of general circulation within the District. The District may also post notice of the condition on their website. If the District establishes a water allocation, it shall provide notice by mailing to the address to which the District customarily mails the billing statement for fees or charges for on-going water service. Water allocations shall be effective on the fifth (5) day following the date of mailing or at such later date as specified in the notice.

(c) If the water supply shortage requiring declaration of a Level 2, 3, or 4 is associated with an Immediate Emergency as determined by the General Manager, the General Manager shall have the authority to implement the measures necessary to balance available water supply and demand. The General Manager shall notify the Board of Directors of the conditions leading to the call for a Level 2, 3, or 4 as soon as possible, but no later than 24 hours after the physical system emergency or failure. Further, the General Manager shall provide the Board with a full report on the incident leading to the implementation of a Level 2, 3 or 4 at the next regular Board Meeting unless a special meeting is warranted and called for by the Board President or Vice President in the President's absence.

Per Ordinance No. 2015-06 Adopted 04/20/15 (Art. 230)

Sec. 230.8 Procedures for Determination and Notification of Water Supply Shortage Condition Levels (Cont'd)

(d) Unless the water supply shortage is associated with an Immediate Emergency as determined by the General Manager, the District Board of Directors may declare an end to a Level 2, 3, or 4 by the adoption of a resolution at any regular or special meeting held in accordance with State law. In the case of water supply shortage associated with an Immediate Emergency as determined by the General Manager, the General Manager may declare an end to a Water Supply Shortage Response level based upon the assessment of the water supply conditions specific to the District. The General Manager shall notify the Board of his actions to end a Water Supply Shortage Response in a manner consistent with the provisions in subsection 230.8(c).

Sec. 230.9 Hardship Variance

(a) If, due to unique circumstances, a specific requirement of this Article would result in undue hardship to a person using agency water or to property upon which agency water is used, that is disproportionate to the impacts to District water users generally or to similar property or classes of water uses, then the person may apply for a variance to the requirements as provided in this section.

(b) The variance may be granted or conditionally granted, only upon a written finding of the existence of facts demonstrating an undue hardship to a person using agency water or to property upon which District water is used, that is disproportionate to the impacts to District water users generally or to similar property or classes of water use due to specific and unique circumstances of the user or the user's property.

1. Application. Application for a variance shall be in a form prescribed by the District.

2. Supporting Documentation. The application shall be accompanied by photographs, maps, drawings, and other information, including a written statement of the applicant.

Per Ordinance No. 2015-06 Adopted 04/20/15 (Art. 230)

Sec. 230.9 Hardship Variance (Cont'd)

3. Required Findings for Variance. An application for a variance shall be denied unless the approving authority finds, based on the information provided in the application, supporting documents, or such additional information as may be requested, and on water use information for the property as shown by the records of the District, all of the following:

   A. That the variance does not constitute a grant of special privilege inconsistent with the limitations upon other District customers.

   B. That because of special circumstances applicable to the property or its use, the strict application of this Article would have a disproportionate impact on the property or use that exceeds the impacts to customers generally.

   C. That the authorizing of such variance will not be of substantial detriment to adjacent properties, and will not materially affect the ability of the District to effectuate the purpose of this chapter and will not be detrimental to the public interest.

   D. That the condition or situation of the subject property or the intended use of the property for which the variance is sought is not common, recurrent or general in nature.

4. Approval Authority. The General Manager or authorized designee shall exercise approval authority and act upon any completed application no later than 10 days after submittal and may approve, conditionally approve, or deny the variance. The applicant requesting the variance shall be promptly notified in writing of any action taken. Unless specified otherwise at the time a variance is approved, the variance applies to the subject property during the term of the mandatory Water Supply Shortage response.

Per Ordinance No. 2015-15 Adopted 10/05/15 (Sec. 230.9(b)4)

Sec. 230.10 Enforcement

(a) As provided in California Water Code Section 377, any violation of Sections 230.5, 230.6, or 230.7 Water Conservation Measures of this Article is a misdemeanor. Upon conviction thereof, such person may be punished by imprisonment in the county jail for not more than 30 days, or by fine not exceeding one thousand dollars ($1,000) or both.

(b) As provided in California Water Code Section 377, any person may be held civilly liable for violating Sections 230.5, 230.6, or 230.7 Water Conservation Measures of this Article or any emergency regulations adopted by the State Water Resources Control Board.

(c) Each day that a violation of this Article occurs is a separate offense.

(d) Prior to seeking criminal enforcement of the provisions of Sections 230.5, 230.6, and 230.7, the District may impose progressive civil penalties and restrictions for violations pursuant to the following enforcement measures for repeated violations:

First Violation:	Written warning
Second Violation:	Penalty of $100 placed on the water bill
Third Violation:	Penalty of $250 placed on the water bill
Fourth Violation:	Penalty of $500 placed on the water bill, and installation of a flow restriction of 5 gallons per minute for 120 hours (5 days), and the customer will be charged for the installation and removal of the flow restrictor.
Fifth Violation:	Penalty of $1,000 placed on water bill, complaint filed with the County of San Diego District Attorney's office, flow restriction imposed and sustained to 5 gallons per minute until disposition of complaint, and the customer will be charged for the installation and removal of the flow restrictor.
Continuing Violation:	The District may additionally impose a $500 per day penalty for continuing violations beginning on the 31st day after the District notifies the person of the violation.

Per Ordinance No. 2015-15 Adopted 10/05/15 (Sec. 230.10)

Sec. 230.10 Enforcement (Cont'd)

The above penalties are independent of, and are in addition to, any volumetric penalties imposed in accordance with any allocation adopted by the District.

(e) In addition or as an alternative, the District may install flow restrictors or discontinue water service at any time.

(f) For each of the above-noted measures, a Complaint and Citation will be issued by a designee of the District's General Manager notifying the violator of the basis for the proposed civil liability order. Unless an appeal and/or hearing is requested pursuant to the provisions of Section 230.11(a) of this Article, on the 31st day following the issuance of the Citation and Complaint, the District's General Manager or authorized designee, shall issue a final order ("Final Order") setting the civil penalty.

(g) Willful violations of the mandatory conservation measures and water use restrictions as set forth in Section 230.7, and applicable during a Water Supply Shortage Emergency Condition – "Level 4," when a Water Shortage Emergency Condition is declared pursuant to California Water Code section 350, et seq., may be enforced by discontinuing service to the property at which the violation occurs as provided by California Water Code section 356.

(h) All remedies provided for herein shall be cumulative and not exclusive.

(i) All revenues collected by the District from penalties imposed pursuant to this Section 230.10 may only be used for the purposes of furthering the provisions and goals of the District's Water Supply Management and Shortage Condition Response Program.

Per Ordinance No. 2015-15 Adopted 10/05/15 (Sec. 230.10)

Article 230 Water Supply Management and Shortage Condition Response Program

Sec. 230.11 Appeal Procedures

(a) Appeal of Section 230.10 Civil Penalties.

1. Any person ("Appellant") may appeal any Citation and Complaint issued by a designee of the District's General Manager pursuant to Section 230.10 of this Article. Any such appeal shall be made in writing on a form provided by the District to the Director of Finance, or authorized designee. All appeals shall be filed within 15 calendar days of the date of the Citation and Complaint. The Director of Finance or authorized designee shall then have 30 calendar days to render a written decision, granting or denying the appeal.

2. If the appeal is denied, the Appellant may, within 15 calendar days of the date of the decision of the Finance Director or authorized designee, request a hearing before the District's General Manager, or authorized designee. The hearing shall not be held sooner than 30 days after the Citation and Complaint was issued, and the Appellant may present evidence in writing or in person. The District's General Manager, or authorized designee, shall take into consideration all relevant circumstances in determining the amount of civil liability to assess, including but not limited to: (i) the nature and persistence of the violation; (ii) the extent of the harm caused by the violation; (iii) the length of time over which the violation occurs; and (iv) any corrective action taken by the violator. If a hearing is not timely requested or upon closing a completed hearing, the District's General Manager, or authorized designee, shall issue an order within 10 calendar days of the hearing.

3. Within 15 calendar days of the issuance of the District General Manager's order, the Appellant may appeal to the Board of Directors. Appeals to the Board of Directors will be placed on the agenda for review and action at a subsequent meeting of the Board of Directors. A decision by the Board of Directors shall be final. If an appeal is not timely requested, the order issued by the District's General Manager is final. Any civil penalties imposed pursuant to the final decision are due and payable and shall be placed on the water bill. The provisions of Section 1094.5 of the Code of Civil Procedure of the State of California are applicable to judicial review of the final order.

4. During the appeal process, all provisions and decisions under appeal shall remain in full effect until the conclusion of the appeal process.

Per Ordinance No. 2015-15 Adopted 10/05/15 (Sec. 230.11(a))

Sec. 230.11 Appeal Procedures (Cont'd)

(b) All other appeals:

1. Decisions made by District staff can be appealed in writing on a form provided by the District to the Director of Finance, or authorized designee. All appeals shall be filed within 15 calendar days of the date of the provision or decision being appealed. The Director of Finance or authorized designee shall then have 30 calendar days to render a written decision on the appeal.

2. Decisions by the Director of Finance or authorized designee may be appealed to the General Manager, or authorized designee, within 15 calendar days of the date of the decision by the Director of Finance or authorized designee. The General Manager or authorized designee shall then have 30 calendar days to render a written decision to the appeal of decision by the Director of Finance.

3. All decisions by General Manager or authorized designee may be appealed to the Board of Directors. Requests for appeals to the Board shall be made in writing within 15 days of the date of the decision by the General Manager or authorized designee and will be placed on an agenda for review and action at a subsequent meeting of the Board. The decision by the Board shall be final.

4. During the appeal process, all provisions and decisions under appeal shall remain in full effect until the conclusion of the appeal process.

Per Ordinance No. 2015-15 Adopted 10/05/15 (Sec. 230.11(b))

Appendix F

Urban Water Management Plan Checklist

Appendix F

UWMP Checklist

This checklist is developed directly from the Urban Water Management Planning Act and SB X7-7. It is provided to support water suppliers during preparation of their UWMPs. Two versions of the UWMP Checklist are provided – the first one is organized according to the California Water Code and the second checklist according to subject matter. The two checklists contain duplicate information and the water supplier should use whichever checklist is more convenient. In the event that information or recommendations in these tables are inconsistent with, conflict with, or omit the requirements of the Act or applicable laws, the Act or other laws shall prevail.

Each water supplier submitting an UWMP can also provide DWR with the UWMP location of the required element by completing the last column of eitherchecklist. This will support DWR in its review of these UWMPs. The completed form can be included with the UWMP.

If an item does not pertain to a water supplier, then state the UWMP requirement and note that it does not apply to the agency. For example, if a water supplier does not use groundwater as a water supply source, then there should be a statement in the UWMP that groundwater is not a water supply source.

Checklist Arranged by Subject

CWC Section	UWMP Requirement	Subject	Guidebook Location	UWMP Location *(Optional Column for Agency Use)*
10620(b)	Every person that becomes an urban water supplier shall adopt an urban water management plan within one year after it has become an urban water supplier.	Plan Preparation	Section 2.1	**Page 2-1**
10620(d)(2)	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.	Plan Preparation	Section 2.5.2	**Page 2-2**
10642	Provide supporting documentation that the water supplier has encouraged 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.	Plan Preparation	Section 2.5.2	**Page 2-2**
10631(a)	Describe the water supplier service area.	System Description	Section 3.1	**Page 3-1**
10631(a)	Describe the climate of the service area of the supplier.	System Description	Section 3.3	**Page 3-8**

10631(a)	Provide population projections for 2020, 2025, 2030, and 2035.	System Description	Section 3.4	**Page 3-8**
10631(a)	Describe other demographic factors affecting the supplier's water management planning.	System Description	Section 3.4	**Page 3-9**
10631(a)	Indicate the current population of the service area.	System Description and Baselines and Targets	Sections 3.4 and 5.4	**Page 3-8 Page 3-10 Page 5-2**
10631(e)(1)	Quantify past, current, and projected water use, identifying the uses among water use sectors.	System Water Use	Section 4.2	**Pages 4-1, 4-6, 4-7**
10631(e)(3)(A)	Report the distribution system water loss for the most recent 12-month period available.	System Water Use	Section 4.3	**Page 4-3, 4-8**
10631.1(a)	Include projected water use needed for lower income housing projected in the service area of the supplier.	System Water Use	Section 4.5	**Page 4-5**
10608.20(b)	Retail suppliers shall adopt a 2020 water use target using one of four methods.	Baselines and Targets	Section 5.7 and App E	**Pages 5-1, 5-3, 5-5**
10608.20(e)	Retail suppliers shall provide baseline daily per capita water use, urban water use target, interim urban water use target, and compliance daily per capita water use, along with the bases for determining those estimates, including references to supporting data.	Baselines and Targets	Chapter 5 and App E	**Pages 5-1 through 5-5**
10608.22	Retail suppliers' per capita daily water use reduction shall be no less than 5 percent of base daily per capita water use of the 5 year baseline. This does not apply if the suppliers base GPCD is at or below 100.	Baselines and Targets	Section 5.7.2	**Page 5-4**
10608.24(a)	Retail suppliers shall meet their interim target by December 31, 2015.	Baselines and Targets	Section 5.8 and App E	**Page 5-4**
10608.24(d)(2)	If the retail supplier adjusts its compliance GPCD using weather normalization, economic adjustment, or extraordinary events, it shall provide the basis for, and data supporting the adjustment.	Baselines and Targets	Section 5.8.2	**Page 5-4**
10608.36	Wholesale suppliers shall include an assessment of present and proposed future measures, programs, and policies to help their retail water suppliers achieve targeted water use reductions.	Baselines and Targets	Section 5.1	**N/A**
10608.40	Retail suppliers shall report on their progress in meeting their water use targets. The data shall be reported using a standardized form.	Baselines and Targets	Section 5.8 and App E	**Page 5-4, 5-5**
10631(b)	Identify and quantify the existing and planned sources of water available for 2015, 2020, 2025, 2030, and 2035.	System Supplies	Chapter 6	**Page 6-1 through 6-4**

10631(b)	Indicate whether groundwater is an existing or planned source of water available to the supplier.	System Supplies	Section 6.2	**Page 6-4**
10631(b)(1)	Indicate whether a groundwater management plan has been adopted by the water supplier or if there is any other specific authorization for groundwater management. Include a copy of the plan or authorization.	System Supplies	Section 6.2.2	**Page 6-4**
10631(b)(2)	Describe the groundwater basin.	System Supplies	Section 6.2.1	**N/A**
10631(b)(2)	Indicate if the basin has been adjudicated and include a copy of the court order or decree and a description of the amount of water the supplier has the legal right to pump.	System Supplies	Section 6.2.2	**N/A**
10631(b)(2)	For unadjudicated basins, indicate whether or not the department has identified the basin as overdrafted, or projected to become overdrafted. Describe efforts by the supplier to eliminate the long-term overdraft condition.	System Supplies	Section 6.2.3	**N/A**
10631(b)(3)	Provide a detailed description and analysis of the location, amount, and sufficiency of groundwater pumped by the urban water supplier for the past five years	System Supplies	Section 6.2.4	**N/A**
10631(b)(4)	Provide a detailed description and analysis of the amount and location of groundwater that is projected to be pumped.	System Supplies	Sections 6.2 and 6.9	**N/A**
10631(d)	Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis.	System Supplies	Section 6.7	**Page 6-11**
10631(g)	Describe the expected future water supply projects and programs that may be undertaken by the water supplier to address water supply reliability in average, single-dry, and multiple-dry years.	System Supplies	Section 6.8	**Page 6-12**
10631(h)	Describe desalinated water project opportunities for long-term supply.	System Supplies	Section 6.6	**Page 6-11**
10631(j)	Retail suppliers will include documentation that they have provided their wholesale supplier(s) – if any - with water use projections from that source.	System Supplies	Section 2.5.1	**Page 2-1 Through Page 2-4**
10631(j)	Wholesale suppliers will include documentation that they have provided their urban water suppliers with identification and quantification of the existing and planned sources of water available from the wholesale to the urban supplier during various water year types.	System Supplies	Section 2.5.1	**N/A**
10633	For wastewater and recycled water, coordinate with local water, wastewater,	System Supplies (Recycled Water)	Section 6.5.1	**Page 6-4**

	groundwater, and planning agencies that operate within the supplier's service area.			
10633(a)	Describe the wastewater collection and treatment systems in the supplier's service area. Include quantification of the amount of wastewater collected and treated and the methods of wastewater disposal.	System Supplies (Recycled Water)	Section 6.5.2	**Page 6-4**
10633(b)	Describe the quantity of treated wastewater that meets recycled water standards, is being discharged, and is otherwise available for use in a recycled water project.	System Supplies (Recycled Water)	Section 6.5.2.2	**Page 6-5**
10633(c)	Describe the recycled water currently being used in the supplier's service area.	System Supplies (Recycled Water)	Section 6.5.3 and 6.5.4	**Page 6-5**
10633(d)	Describe and quantify the potential uses of recycled water and provide a determination of the technical and economic feasibility of those uses.	System Supplies (Recycled Water)	Section 6.5.4	**Page 6-6**
10633(e)	Describe the projected use of recycled water within the supplier's service area at the end of 5, 10, 15, and 20 years, and a description of the actual use of recycled water in comparison to uses previously projected.	System Supplies (Recycled Water)	Section 6.5.4	**Page 6-7**
10633(f)	Describe the actions which may be taken to encourage the use of recycled water and the projected results of these actions in terms of acre-feet of recycled water used per year.	System Supplies (Recycled Water)	Section 6.5.5	**Page 6-8**
10633(g)	Provide a plan for optimizing the use of recycled water in the supplier's service area.	System Supplies (Recycled Water)	Section 6.5.5	**Page 6-8** **Page 6-9**
10620(f)	Describe water management tools and options to maximize resources and minimize the need to import water from other regions.	Water Supply Reliability Assessment	Section 7.4	**Page 7-1**
10631(c)(1)	Describe the reliability of the water supply and vulnerability to seasonal or climatic shortage.	Water Supply Reliability Assessment	Section 7.1	**Page 7-1 through Page 7-7**
10631(c)(1)	Provide data for an average water year, a single dry water year, and multiple dry water years	Water Supply Reliability Assessment	Section 7.2	**Page 7-10 through Page 7-12**
10631(c)(2)	For any water source that may not be available at a consistent level of use, describe plans to supplement or replace that source.	Water Supply Reliability Assessment	Section 7.1	**Page 7-1**
10634	Provide information on the quality of existing sources of water available to the supplier and the manner in which water quality affects water management strategies and supply reliability	Water Supply Reliability Assessment	Section 7.1	**Page 7-4 through Page 7-7**
10635(a)	Assess the water supply reliability during normal, dry, and multiple dry water years by comparing the total water supply sources	Water Supply Reliability Assessment	Section 7.3	**Page 7-14** **Page 7-15**

	available to the water supplier with the total projected water use over the next 20 years.			
10632(a) and 10632(a)(1)	Provide an urban water shortage contingency analysis that specifies stages of action and an outline of specific water supply conditions at each stage.	Water Shortage Contingency Planning	Section 8.1	**Page 8-1**
10632(a)(2)	Provide an estimate of the minimum water supply available during each of the next three water years based on the driest three-year historic sequence for the agency.	Water Shortage Contingency Planning	Section 8.9	**Page 8-10**
10632(a)(3)	Identify actions to be undertaken by the urban water supplier in case of a catastrophic interruption of water supplies.	Water Shortage Contingency Planning	Section 8.8	**Page 8-8 Page 8-9**
10632(a)(4)	Identify mandatory prohibitions against specific water use practices during water shortages.	Water Shortage Contingency Planning	Section 8.2	**Page 8-1 Page 8-2**
10632(a)(5)	Specify consumption reduction methods in the most restrictive stages.	Water Shortage Contingency Planning	Section 8.4	**Page 8-2 – thru 8-4.**
10632(a)(6)	Indicated penalties or charges for excessive use, where applicable.	Water Shortage Contingency Planning	Section 8.3	**Page 8-2 Page 8-3**
10632(a)(7)	Provide an analysis of the impacts of each of the actions and conditions in the water shortage contingency analysis on the revenues and expenditures of the urban water supplier, and proposed measures to overcome those impacts.	Water Shortage Contingency Planning	Section 8.6	**Page 8-5**
10632(a)(8)	Provide a draft water shortage contingency resolution or ordinance.	Water Shortage Contingency Planning	Section 8.7	**Page 8-8**
10632(a)(9)	Indicate a mechanism for determining actual reductions in water use pursuant to the water shortage contingency analysis.	Water Shortage Contingency Planning	Section 8.5	**Page 8-4**
10631(f)(1)	Retail suppliers shall provide a description of the nature and extent of each demand management measure implemented over the past five years. The description will address specific measures listed in code.	Demand Management Measures	Sections 9.2 and 9.3	**Page 9-12**
10631(f)(2)	Wholesale suppliers shall describe specific demand management measures listed in code, their distribution system asset management program, and supplier assistance program.	Demand Management Measures	Sections 9.1 and 9.3	**N/A**
10631(i)	CUWCC members may submit their 2013-2014 CUWCC BMP annual reports in lieu of, or in addition to, describing the DMM implementation in their UWMPs. This option is only allowable if the supplier has been found to be in full compliance with the CUWCC MOU.	Demand Management Measures	Section 9.5	**Appendix D**

10608.26(a)	Retail suppliers shall conduct a public hearing to discuss adoption, implementation, and economic impact of water use targets.	Plan Adoption, Submittal, and Implementation	Section 10.3	**Page 10-2**
10621(b)	Notify, at least 60 days prior to the public hearing, any city or county within which the supplier provides water that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan.	Plan Adoption, Submittal, and Implementation	Section 10.2.1	**Page 10-1**
10621(d)	Each urban water supplier shall update and submit its 2015 plan to the department by July 1, 2016.	Plan Adoption, Submittal, and Implementation	Sections 10.3.1 and 10.4	**Page 10-2**
10635(b)	Provide supporting documentation that Water Shortage Contingency Plan has been, or will be, provided to any city or county within which it provides water, no later than 60 days after the submission of the plan to DWR.	Plan Adoption, Submittal, and Implementation	Section 10.4.4	**Page 10-2**
10642	Provide supporting documentation that the urban water supplier made the plan available for public inspection, published notice of the public hearing, and held a public hearing about the plan.	Plan Adoption, Submittal, and Implementation	Sections 10.2.2, 10.3, and 10.5	**Page 10-2** **Page 10-3**
10642	The water supplier is to provide the time and place of the hearing to any city or county within which the supplier provides water.	Plan Adoption, Submittal, and Implementation	Sections 10.2.1	**Page 10-1**
10642	Provide supporting documentation that the plan has been adopted as prepared or modified.	Plan Adoption, Submittal, and Implementation	Section 10.3.1	**Page 10-2**
10644(a)	Provide supporting documentation that the urban water supplier has submitted this UWMP to the California State Library.	Plan Adoption, Submittal, and Implementation	Section 10.4.3	**Page 10-2**
10644(a)(1)	Provide supporting documentation that the urban water supplier has submitted this UWMP to any city or county within which the supplier provides water no later than 30 days after adoption.	Plan Adoption, Submittal, and Implementation	Section 10.4.4	**Page 10-2**
10644(a)(2)	The plan, or amendments to the plan, submitted to the department shall be submitted electronically.	Plan Adoption, Submittal, and Implementation	Sections 10.4.1 and 10.4.2	**Page 10-2**
10645	Provide supporting documentation that, not later than 30 days after filing a copy of its plan with the department, the supplier has or will make the plan available for public review during normal business hours.	Plan Adoption, Submittal, and Implementation	Section 10.5	**Page 10-3**

Appendix G

SB X7-7 Tables

SB X7-7 Table 0: Units of Measure Used in UWMP* *(select one from the drop down list)*
Acre Feet
**The unit of measure must be consistent with Table 2-3*
NOTES:

SB X7-7 Table-1: Baseline Period Ranges			
Baseline	**Parameter**	**Value**	**Units**
10- to 15-year baseline period	2008 total water deliveries	37,636	Acre Feet
	2008 total volume of delivered recycled water	48	Acre Feet
	2008 recycled water as a percent of total deliveries	0.13%	Percent
	Number of years in baseline period[1]	10	Years
	Year beginning baseline period range	1999	
	Year ending baseline period range[2]	2008	
5-year baseline period	Number of years in baseline period	5	Years
	Year beginning baseline period range	2004	
	Year ending baseline period range[3]	2008	

[1] *If the 2008 recycled water percent is less than 10 percent, then the first baseline period is a continuous 10-year period. If the amount of recycled water delivered in 2008 is 10 percent or greater, the first baseline period is a continuous 10- to 15-year period.*

[2] *The ending year must be between December 31, 2004 and December 31, 2010.*

[3] *The ending year must be between December 31, 2007 and December 31, 2010.*

NOTES:

SB X7-7 Table 2: Method for Population Estimates	
Method Used to Determine Population (may check more than one)	
☐	**1. Department of Finance** (DOF) DOF Table E-8 (1990 - 2000) and (2000-2010) and DOF Table E-5 (2011 - 2015) when available
☑	**2. Persons-per-Connection Method**
☐	**3. DWR Population Tool**
☐	**4. Other** DWR recommends pre-review
NOTES:	

SB X7-7 Table 3: Service Area Population		
Year		**Population**
10 to 15 Year Baseline Population		
Year 1	1999	20,462
Year 2	2000	20,879
Year 3	2001	22,315
Year 4	2002	22,531
Year 5	2003	22,493
Year 6	2004	22,560
Year 7	2005	23,797
Year 8	2006	24,079
Year 9	2007	24,443
Year 10	2008	24,853
Year 11		
Year 12		
Year 13		
Year 14		
Year 15		
5 Year Baseline Population		
Year 1	2004	22,560
Year 2	2005	23,797
Year 3	2006	24,079
Year 4	2007	24,443
Year 5	2008	24,853
2015 Compliance Year Population		
2015		25,394
NOTES:		

SB X7-7 Table 4: Annual Gross Water Use *								
	Baseline Year *Fm SB X7-7 Table 3*	**Volume Into Distribution System** *Fm SB X7-7 Table(s) 4-A*	**Deductions**					**Annual Gross Water Use**
			Exported Water	Change in Dist. System Storage (+/-)	Indirect Recycled Water *Fm SB X7-7 Table 4-B*	Water Delivered for Agricultural Use	Process Water *Fm SB X7-7 Table(s) 4-D*	
10 to 15 Year Baseline - Gross Water Use								
Year 1	1999	39195.1			0		0	39,195
Year 2	2000	48549.9			0		0	48,550
Year 3	2001	44597.5			0		0	44,598
Year 4	2002	49524.1			0		0	49,524
Year 5	2003	43674.8			0		0	43,675
Year 6	2004	52181.6			0		0	52,182
Year 7	2005	38104.6			0		0	38,105
Year 8	2006	44766.9			0		0	44,767
Year 9	2007	50511.4			0		0	50,511
Year 10	2008	39499.8			0		0	39,500
Year 11	0	0			0		0	0
Year 12	0	0			0		0	0
Year 13	0	0			0		0	0
Year 14	0	0			0		0	0
Year 15	0	0			0		0	0
10 - 15 year baseline average gross water use								**30,040**
5 Year Baseline - Gross Water Use								
Year 1	2004	52,182			0		0	52,182
Year 2	2005	38,105			0		0	38,105
Year 3	2006	44,767			0		0	44,767
Year 4	2007	50,511			0		0	50,511
Year 5	2008	39,500			0		0	39,500
5 year baseline average gross water use								**45,013**
2015 Compliance Year - Gross Water Use								
2015		25,925			0		0	25,925
* NOTE that the units of measure must remain consistent throughout the UWMP, as reported in Table 2-3								
NOTES:								

SB X7-7 Table 4-A: Volume Entering the Distribution System(s)

Complete one table for each source.

Name of Source	San Diego County Water Authority
This water source is:	
☐	The supplier's own water source
☑	A purchased or imported source

Baseline Year *Fm SB X7-7 Table 3*		Volume Entering Distribution System	Meter Error Adjustment* *Optional (+/-)*	Corrected Volume Entering Distribution System
10 to 15 Year Baseline - Water into Distribution System				
Year 1	1999	39195.1		39,195
Year 2	2000	48549.9		48,550
Year 3	2001	44597.5		44,598
Year 4	2002	49524.1		49,524
Year 5	2003	43674.8		43,675
Year 6	2004	52181.6		52,182
Year 7	2005	38104.6		38,105
Year 8	2006	44766.9		44,767
Year 9	2007	50511.4		50,511
Year 10	2008	39499.8		39,500
Year 11	0			0
Year 12	0			0
Year 13	0			0
Year 14	0			0
Year 15	0			0
5 Year Baseline - Water into Distribution System				
Year 1	2004	52181.6		52,182
Year 2	2005	38104.6		38,105
Year 3	2006	44766.9		44,767
Year 4	2007	50511.4		50,511
Year 5	2008	39499.8		39,500
2015 Compliance Year - Water into Distribution System				
2015		25925		25,925

** Meter Error Adjustment - See guidance in Methodology 1, Step 3 of Methodologies Document*

2015 usage includes differentials of distribution system storage and unbilled water + SDCWA purchases

SB X7-7 Table 4-B: Indirect Recycled Water Use Deduction *(For use only by agencies that are deducting indirect recycled water)*										
		Surface Reservoir Augmentation					**Groundwater Recharge**			
Baseline Year *Fm SB X7-7 Table 3*		Volume Discharged from Reservoir for Distribution System Delivery	Percent Recycled Water	Recycled Water Delivered to Treatment Plant	Transmission/ Treatment Loss	Recycled Volume Entering Distribution System from Surface Reservoir Augmentation	Recycled Water Pumped by Utility*	Transmission/ Treatment Losses	Recycled Volume Entering Distribution System from Groundwater Recharge	**Total Deductible Volume of Indirect Recycled Water Entering the Distribution System**
10-15 Year Baseline - Indirect Recycled Water Use										
Year 1	1999			0		0			0	0
Year 2	2000			0		0			0	0
Year 3	2001			0		0			0	0
Year 4	2002			0		0			0	0
Year 5	2003			0		0			0	0
Year 6	2004			0		0			0	0
Year 7	2005			0		0			0	0
Year 8	2006			0		0			0	0
Year 9	2007			0		0			0	0
Year 10	2008			0		0			0	0
Year 11	0			0		0			0	0
Year 12	0			0		0			0	0
Year 13	0			0		0			0	0
Year 14	0			0		0			0	0
Year 15	0			0		0			0	0
5 Year Baseline - Indirect Recycled Water Use										
Year 1	2004			0		0			0	0
Year 2	2005			0		0			0	0
Year 3	2006			0		0			0	0
Year 4	2007			0		0			0	0
Year 5	2008			0		0			0	0
2015 Compliance - Indirect Recycled Water Use										
2015				0		0			0	0
**Suppliers will provide supplemental sheets to document the calculation for their input into "Recycled Water Pumped by Utility". The volume reported in this cell must be less than total groundwater pumped - See Methodology 1, Step 8, section 2.c.*										
NOTES:										

SB X7-7 Table 5: Gallons Per Capita Per Day (GPCD)				
Baseline Year *Fm SB X7-7 Table 3*		Service Area Population *Fm SB X7-7 Table 3*	Annual Gross Water Use *Fm SB X7-7 Table 4*	Daily Per Capita Water Use (GPCD)
10 to 15 Year Baseline GPCD				
Year 1	1999	20,462	39,195	1,710
Year 2	2000	20,879	48,550	2,076
Year 3	2001	22,315	44,598	1,784
Year 4	2002	22,531	49,524	1,962
Year 5	2003	22,493	43,675	1,733
Year 6	2004	22,560	52,182	2,065
Year 7	2005	23,797	38,105	1,429
Year 8	2006	24,079	44,767	1,660
Year 9	2007	24,443	50,511	1,845
Year 10	2008	24,853	39,500	1,419
Year 11	0	0	0	
Year 12	0	0	0	
Year 13	0	0	0	
Year 14	0	0	0	
Year 15	0	0	0	
10-15 Year Average Baseline GPCD				**1,768**
5 Year Baseline GPCD				
Baseline Year *Fm SB X7-7 Table 3*		Service Area Population *Fm SB X7-7 Table 3*	Gross Water Use *Fm SB X7-7 Table 4*	Daily Per Capita Water Use
Year 1	2004	22,560	52,182	2,065
Year 2	2005	23,797	38,105	1,429
Year 3	2006	24,079	44,767	1,660
Year 4	2007	24,443	50,511	1,845
Year 5	2008	24,853	39,500	1,419
5 Year Average Baseline GPCD				**1,684**
2015 Compliance Year GPCD				
2015		25,394	25,925	911
NOTES:				

SB X7-7 Table 6: Gallons per Capita per Day *Summary From Table SB X7-7 Table 5*	
10-15 Year Baseline GPCD	1,768
5 Year Baseline GPCD	1,684
2015 Compliance Year GPCD	911
NOTES:	

SB X7-7 Table 7: 2020 Target Method *Select Only One*		
Target Method		Supporting Documentation
☑	Method 1	SB X7-7 Table 7A
☐	Method 2	SB X7-7 Tables 7B, 7C, and 7D *Contact DWR for these tables*
☐	Method 3	SB X7-7 Table 7-E
☐	Method 4	Method 4 Calculator
NOTES:		

SB X7-7 Table 7-A: Target Method 1 20% Reduction	
10-15 Year Baseline GPCD	2020 Target GPCD
1768	1415
NOTES:	

SB X7-7 Table 7-E: Target Method 3				
Agency May Select More Than One as Applicable	Percentage of Service Area in This Hydrological Region	Hydrologic Region	"2020 Plan" Regional Targets	Method 3 Regional Targets (95%)
☐		North Coast	137	130
☐		North Lahontan	173	164
☐		Sacramento River	176	167
☐		San Francisco Bay	131	124
☐		San Joaquin River	174	165
☐		Central Coast	123	117
☐		Tulare Lake	188	179
☐		South Lahontan	170	162
☐		South Coast	149	142
☐		Colorado River	211	200
Target *(If more than one region is selected, this value is calculated.)*				**0**
NOTES:				

SB X7-7 Table 7-F: Confirm Minimum Reduction for 2020 Target			
5 Year Baseline GPCD *From SB X7-7 Table 5*	Maximum 2020 Target*	Calculated 2020 Target *Fm Appropriate Target Table*	Confirmed 2020 Target
1684	1599	1415	1415
** Maximum 2020 Target is 95% of the 5 Year Baseline GPCD*			
NOTES:			

SB X7-7 Table 8: 2015 Interim Target GPCD		
Confirmed 2020 Target *Fm SB X7-7 Table 7-F*	10-15 year Baseline GPCD *Fm SB X7-7 Table 5*	2015 Interim Target GPCD
1,415	1,768	1,592
NOTES:		

SB X7-7 Table 9: 2015 Compliance								
Actual 2015 GPCD	2015 Interim Target GPCD	Optional Adjustments *(in GPCD)*					2015 GPCD *(Adjusted if applicable)*	Did Supplier Achieve Targeted Reduction for 2015?
		Extraordinary Events	Weather Normalization	Economic Adjustment	TOTAL Adjustments	Adjusted 2015 GPCD		
911	1592	*From Methodology 8 (Optional)*	*From Methodology 8 (Optional)*	*From Methodology 8 (Optional)*	0	911.4101136	911.4101136	YES
NOTES:								