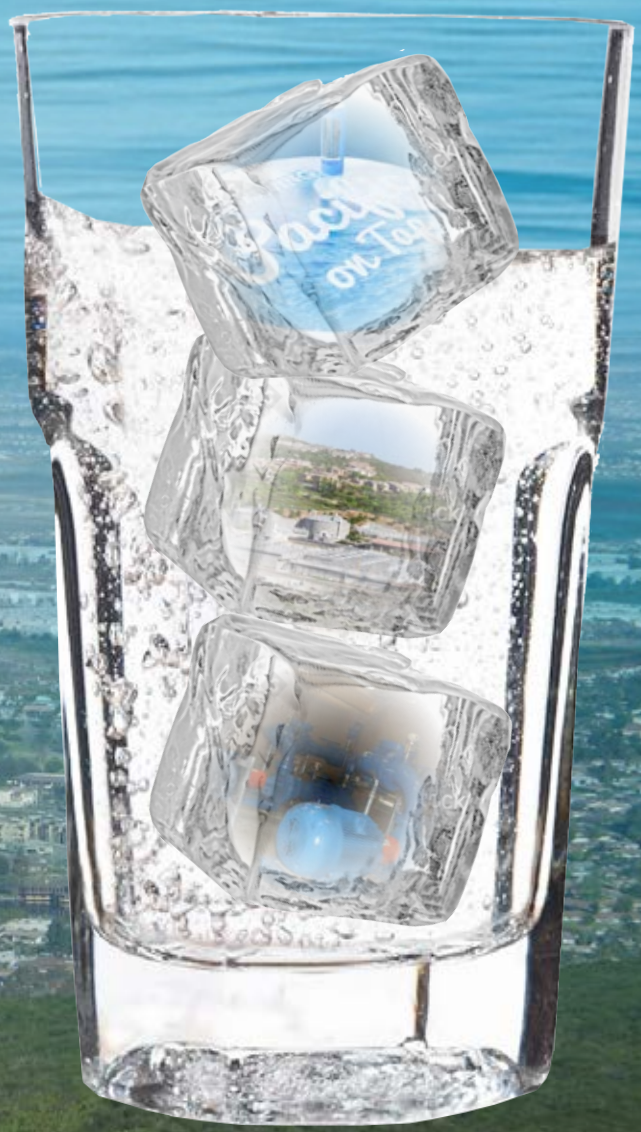
VALLECITOS WATER DISTRICT

Water and Wastewater Specialists since 1955

2015 Urban Water Management Plan



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Acronyms and Abbreviations

Master Plan	Vallecitos Water District Water, Wastewater and Recycled Water Master Plan
ACP	Asbestos Cement Pipe
Act	California Urban Water Management Planning Act
AF	Acre-Feet
AFY	Acre-Feet per Year
BMP	Best Management Practice
cfs	Cubic Feet per Second
CII	Commercial, Industrial and Institutional
CIP	Capital Improvement Program
CMWD	Carlsbad Municipal Water District
CSUSM	California State University San Marcos
CUWCC	California Urban Water Conservation Council
CWC	California Water Code
DBP	Disinfection Byproduct
DIP	Ductile Iron Pipe
du/ac	Dwelling Units per Acre
DWR	State of California Department of Water Resources
EPA	U.S. Environmental Protection Agency
ESP	Emergency Storage Project
EWPCF	Encina Water Pollution Control Facility
Forum	Colorado River Basin Salinity Control Forum
GIS	Geographic Information System
GPCD	Gallons per Capita per Day
gpd	Gallons per Day
gpd/ac	Gallons per Day per Acre
gpm	Gallons per Minute
HARRF	City of Escondido Hale Avenue Resource Recovery Facility
ICP	Integrated Contingency Plan

IRP	Integrated Water Resources Plan
LAFCO	Local Agency Formation Commission
lbs/day	Pounds per Day
MCL	California Maximum Contaminant Level
MG	Million Gallons
MGD	Million Gallons per Day
mg/l	Milligram per Liter
MOU	Memorandum of Understanding Regarding Urban Water Conservation
MRF	Meadowlark Water Reclamation Facility
MWD	Metropolitan Water District of Southern California
NSDWRC	North San Diego Water Reclamation Coalition
NTA	Northern Tributary Area
OMWD	Olivenhain Municipal Water District
Rincon MWD	Rincon del Diablo Municipal Water District
SANDAG	San Diego Association of Governments
SB7	Senate Bill 7 of the Seventh Extraordinary Session of 2009
SCADA	Supervisory Control and Data Acquisition
SDCWA	San Diego County Water Authority
SDWA	Safe Drinking Water Act
SDWD	San Dieguito Water District
TDS	Total Dissolved Solids
UWMP	Urban Water Management Plan
VWD	Vallecitos Water District
WTP	Water Treatment Plant

Section 1: Introduction and Overview

Vallecitos Water District (VWD) is a public agency responsible for supplying water, wastewater and recycled water service to a 45-square mile area within northern San Diego County that includes the City of San Marcos, parts of the cities of Vista, Carlsbad, Escondido, and unincorporated areas within the County of San Diego. Its service area includes the State Highway 78 corridor and is bordered by Interstate 15 on its eastern boundary. Figure 1-1 illustrates VWD's location and service boundary.

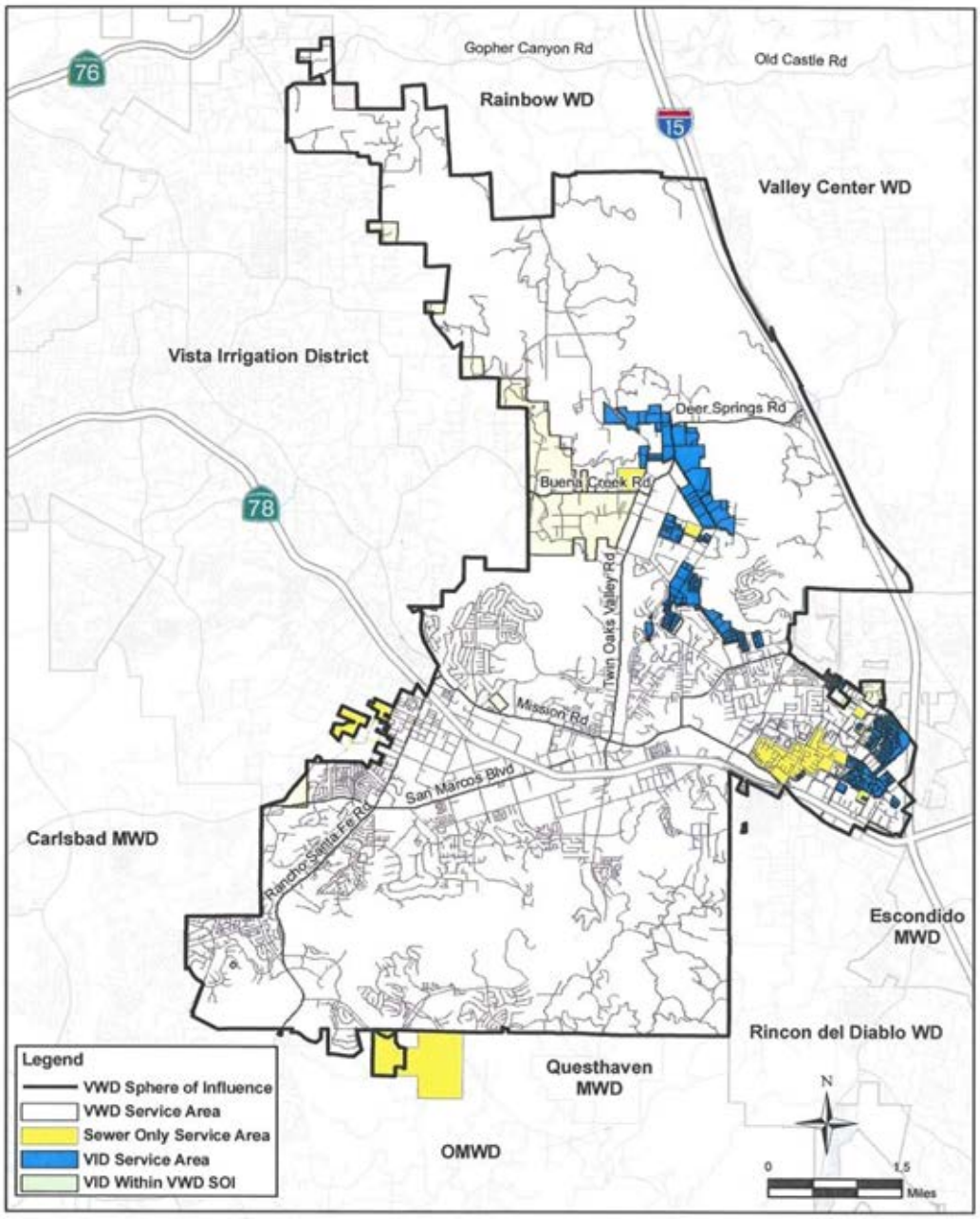
VWD is a member agency of the San Diego County Water Authority (SDCWA) and currently receives 100% of its potable water supply from this water wholesaler. VWD serves potable water to approximately 93,897 people, as well as commercial, light industrial, institutional, construction, landscape irrigation and agricultural customers. VWD also provides wastewater collection services to a 23-square mile area, as illustrated in Figure 1-2, that serves approximately 88,000 people, as well as commercial, light industrial, institutional, construction, landscape irrigation and agricultural customers.

Over the past 10 years, VWD has continued to make great strides to secure a sustainable and reliable water supply for the future. Since 2005, VWD added an additional 40-million-gallon potable water storage reservoir to assist in emergencies and peak demand management. VWD also increased the recycled water capacity at its

Meadowlark Water Reclamation Facility from 2.0 million gallons per day (MGD) to 5.0 MGD. VWD has added potable water supply reliability through the purchase of approximately 3,500 acre-feet per year, or 1,140 million gallons per year, of desalinated seawater from the Claude "Bud" Lewis Carlsbad Desalination Plant, and through the purchase of approximately 2,750 acre-feet per year, or 896 million gallons per year, from the Olivenhain Municipal Water District's David C. McCollom Water Treatment Plant. And finally, VWD has implemented aggressive water conservation outreach efforts, which has lowered the overall demand for imported water into the region.

VWD has prepared this 2015 Urban Water Management Plan (UWMP) in accordance with the Urban Water Management Planning Act (California Water Code §10610 through 10656). This document covers water loss auditing as dictated by California Water Code (CWC) §10608.34, and compliance with Senate Bill X_{7-7} as dictated by CWC §10608.16 through §10608.28.

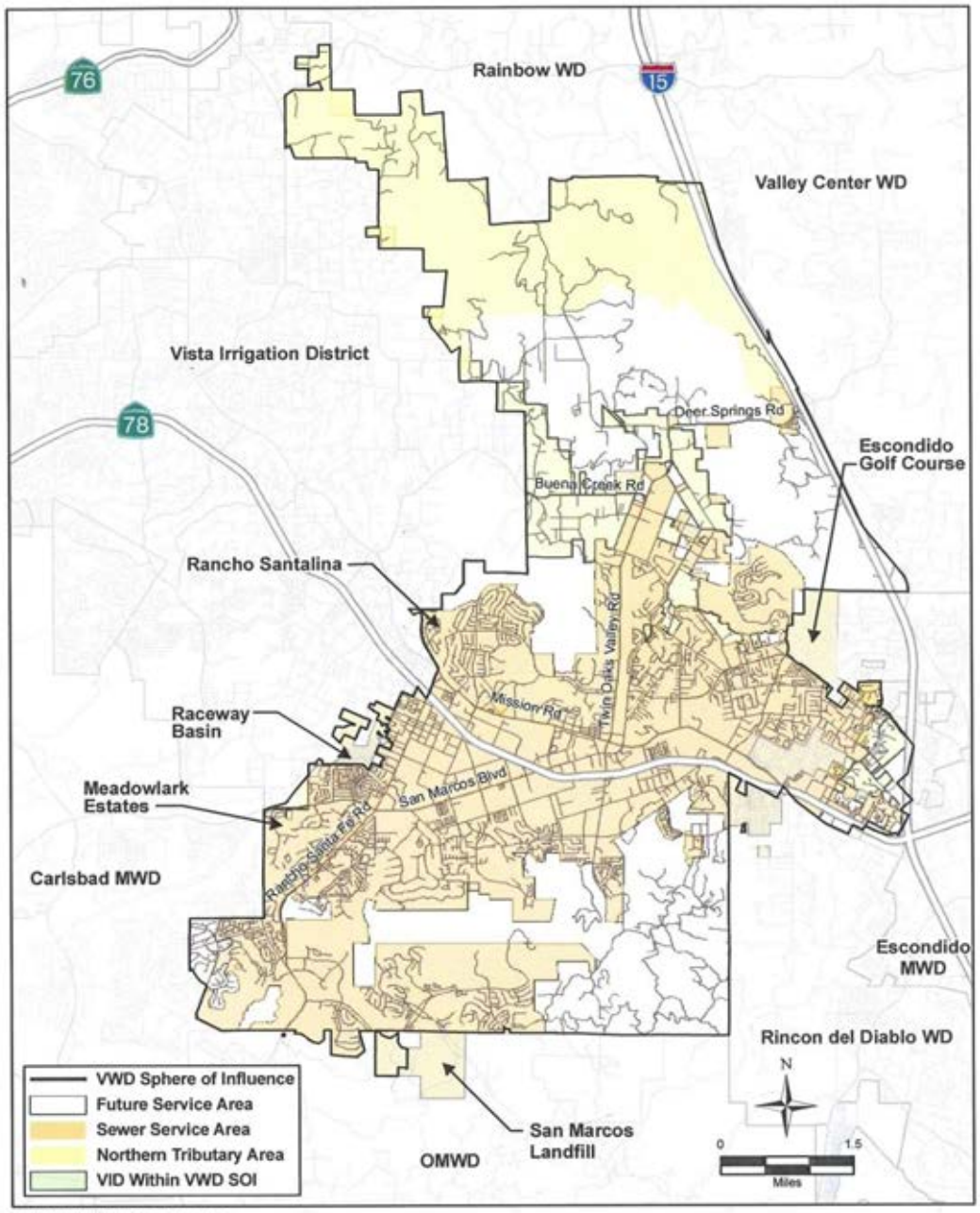
This section will provide an overview of the regulatory process of this Urban Water Management Plan, and will provide background information regarding VWD and its service area. Further, this section will detail VWD's master planning process and the generation of its Capital Improvement Program (CIP).



SOURCE: LAFCO SOI - Affirmed 08-06-2007
VWD GIS Data - 07-17-2008, provided by District

WATER SERVICE AREA

FIGURE 1-1



SOURCE: LAFCO SOI - Affirmed 08-06-2007
VWD GIS Data - 07-17-2006, provided by District

WASTEWATER SERVICE AREA

FIGURE 1-2

1.1 Regulatory Overview

The Vallecitos Water District is an independent special district governed by five representatives voted into office by the local citizens within its service boundary. The long-term mission of the District is to effectively and efficiently meet the needs of its service area within the expressed and implied powers provided by law, as stated in its adopted Mission Statement, below.

"The mission of Vallecitos Water District is to serve as water and wastewater specialists, providing exceptional and sustainable services. The District will continue to provide exceptional and sustainable services by:

- Proactively, innovatively, and continuously improving the quality and efficiency of our operations and service;
- Supporting and retaining highly trained staff that is knowledgeable, engaged, team oriented and responsive to the community and other agencies;
- Providing support for the good of the region to remain a respected and active industry partner, and;
- Providing continuous outreach and education to our customers on issues and topics that impact the services we provide and our role as water and wastewater specialists."

The following regulations apply to this 2015 UWMP and have dictated its preparation.

California Urban Water Management Planning Act

UWMPs are prepared by California's urban water suppliers to support their long-term resource planning and ensure adequate water supplies are available to meet existing and future water demands. The California Urban Water Management Planning Act (Act) requires every urban water supplier that provides water for municipal services to more than 3,000 connections or is supplying more than 3,000 acre-feet of water annually to assess the reliability of its water sources over a 20-year planning horizon considering normal and dry years. This assessment is to be included in the supplier's UWMP, which is to be prepared and adopted every 5 years and submitted to the Department of Water Resources (DWR). VWD complied with the Act in 2005 and 2010 with the adoptions of its 2005 UWMP and 2010 UWMP, respectively.

DWR's *2015 UWMP Guidebook for Urban Water Suppliers* served as a blueprint to VWD as it compiled this 2015 UWMP.

Major amendments made to the Act since preparation of the 2010 UWMP include:

- CWC §10631(f)(1) requires a narrative description that addresses the nature and extent of each water Demand Management Measure implemented over the past five years and planned to be implemented to achieve the water use targets pursuant to Senate Bill X_{7-7}.

- CWC §10631(e)(1)(J) and (e)(3)(A) and (B) requires that distribution system water loss be quantified for the most recent 12-month period available. For all subsequent UWMP updates, the distribution system water loss shall be quantified for each of the preceding five years. The waster loss will be reported on a DWR-approved or developed worksheet.

- CWC §10631(e)(4) allows that water use projections may display and account for the water savings estimated to result from adopted codes, standards, ordinances, or transportation and land use plans; provided that the urban water supplier provides citations to and the extent of the savings from these codes, standards, ordinances, or transportation and land use plans when making the projections. In addition, water use projections that do not include water savings shall be noted of that fact.

- CWC §10631.2(a) and (b) allows the UWMP to voluntarily estimate the amount of energy used to extract, divert, convey, treat, distribute and store water supplies. DWR shall prepare a methodology for the voluntary calculation or estimation of energy intensity of urban water systems.

- CWC §10632(b) requires that pools and spas be analyzed separately from other water features that are artificially supplied with water, including ponds, lakes, waterfalls and fountains, for purposes of developing the water shortage contingency analysis for the UWMP.

- CWC §10644(a)(2) requires that the UWMP, or amendments to the UWMP, be submitted to DWR electronically and include the standardized forms, tables and displays specified by DWR.

- CWC §10621(d) requires that each urban water supplier update and submit its 2015 UWMP to DWR by July 1, 2016.

Senate Bill 7 of the Seventh Extraordinary Session of 2009

The state Legislature passed Senate Bill X_{7-7}, referred to as SB7, on November 10, 2009, which became effective February 3, 2010. This law seeks to achieve a 20 percent statewide reduction in urban per capita water use in California by December 31, 2020. The law requires each urban retail water supplier to develop urban water use targets to help meet the 20 percent goal by 2020, an interim water reduction target by 2015, and incorporate this information into the 2010, 2015 and 2020 UWMPs.

Urban water providers such as VWD must include in their 2020 plans the following information: (1) baseline daily per capita water use; (2) urban water use target; (3) interim water use target; (4) compliance daily per capita water use, including technical bases and supporting data for those determinations. An urban retail water supplier may update its 2020 urban water use target in its 2015 UWMP (CWC §10608.20).

A Regional Alliance allows individual urban retail water suppliers to combine their individual targets into a regional target. An urban retail water supplier is required to meet either their own or the regional water conservation target in order to comply with SB7. VWD has entered into a Regional Alliance with Olivenhain Municipal Water District (OMWD), Rincon del Diablo Municipal Water District (Rincon MWD), and San Dieguito Water District (SDWD). A copy of the "Cooperative Agreement to Establish and Carry Out a Regional Alliance in Accordance with Part 2.55 of the California Water Code" is included in Appendix H.

Senate Bills 610 and 221

CWC §10910 through 10914 and Government Code §65867.5, 66455.3 and 66473.7 (commonly referred to as SB 610 and SB 221) amended state law to improve the link between information on water supply availability and certain land use decisions made by cities and counties. SB 610 requires that the water purveyor of the public water system prepare a water supply assessment to be included in the environmental documentation of certain large proposed projects. SB 221 requires affirmative written verification from the water purveyor of the public water system that sufficient water supplies are available for certain large residential subdivisions of property prior to approval of the tentative map.

VWD has used documentation from Metropolitan Water District of Southern California (MWD) and SDCWA in producing this UWMP, which is the basis for preparing water supply assessments and written verifications required under state law.

1.2 MASTER PLAN & CAPITAL IMPROVEMENT PROGRAM

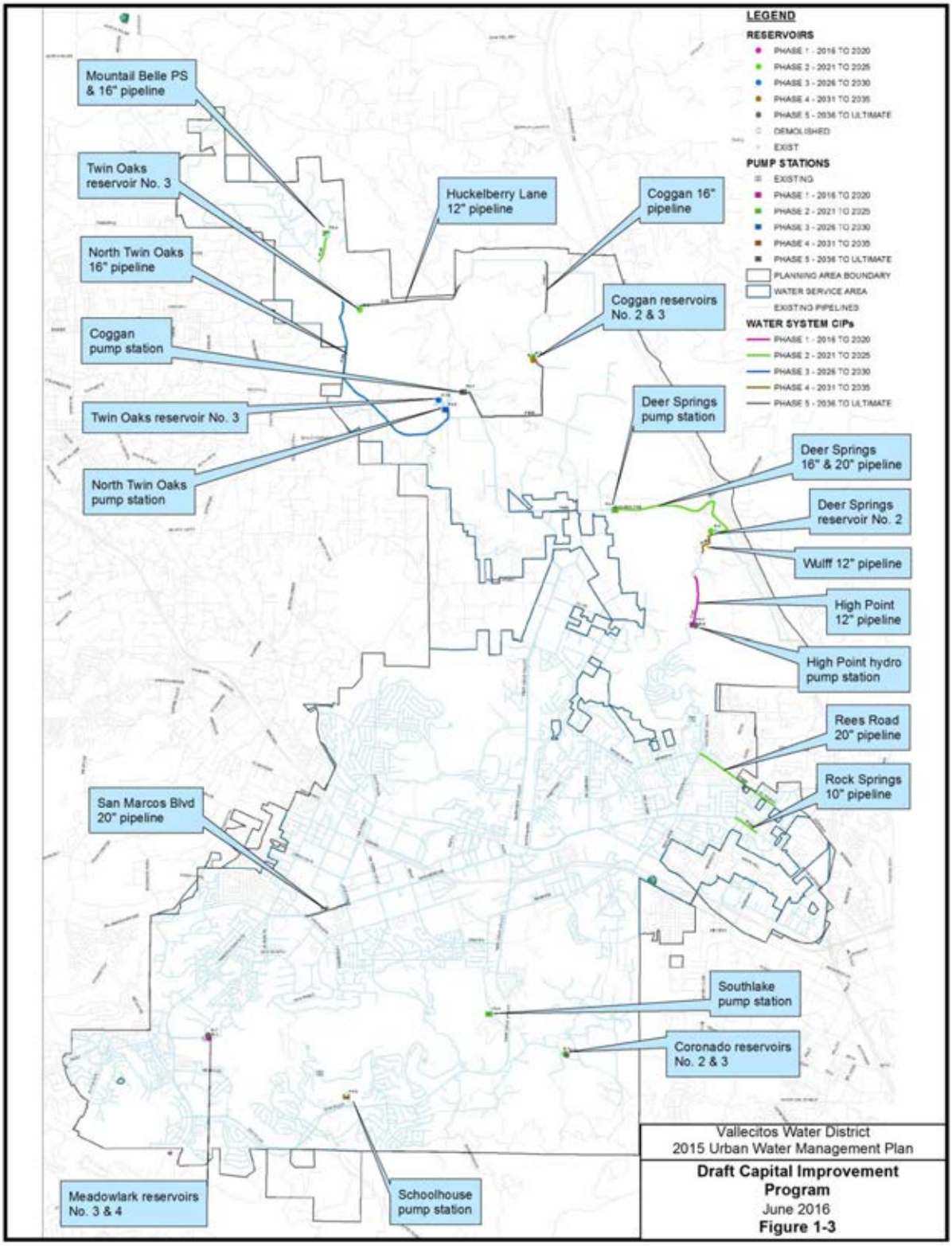
The Master Plan and comprehensive Capital Improvement Program (CIP) provide the VWD with guidelines for reliable service to VWD's customers well into the future. In order to accomplish this, VWD produced a Water, Wastewater and Recycled Water Master Plan in 2008 (Master Plan) in order to analyze existing and future land uses, as well as current water demands and trends. This Master Plan is currently being updated (Draft 2014 Master Plan), and data and results from this new draft have been incorporated into and utilized within this UWMP.

Through use of VWD's ArcGIS/ArcINFO-based Geographic Information System (GIS) and WaterGEMS / SewerGEMS hydraulic modeling software, the Master Plan evaluates the capacity of the existing water and sewer systems and specifies improvements necessary to serve existing and future customers. Phasing of these improvements is based on regional population projections and known plans for development within VWD's sphere of influence.

A CIP is then developed to guide VWD in timely and cost-effective investments that contribute to the sustainability of its infrastructure and the reliability of service to its customers. CIP projects are prioritized according to how quickly they are needed. Phase 1 (2015 – 2020) and Phase 2 (2021 – 2025) projects represent high priority projects that should be planned or constructed over the next ten years. Lower priority projects are identified as Phase 3 through 4 projects that would be phased over the following ten years (2026 – 2035). And finally, Phase 5 projects represent long-term projects to be constructed as VWD's service area approaches build-out.

The Draft 2014 Master Plan identified 13 potable water pipeline projects totaling approximately 57,400 linear feet, 7 potable water pump station projects that will increase VWD's pumping capacity by 36,750 gallons per minute, and 10 storage projects that will increase VWD's total potable water storage capacity by 42.73 MG. The locations of these projects are shown in Figure 1-3. VWD's total potable water CIP costs through build-out are estimated to be $130.6 million and breaks down as follows:

- Water Pipeline CIP Total: $32,445,000
- Water Pump Station CIP Total: $35,595,000
- Water Storage CIP Total: $62,523,000


LEGEND
RESERVOIRS
PHASE 1 - 2016 TO 2020
PHASE 2 - 2021 TO 2025
PHASE 3 - 2026 TO 2030
PHASE 4 - 2031 TO 2035
PHASE 5 - 2036 TO ULTIMATE
DEMOLISHED
EXIST
PUMP STATIONS
EXISTING
PHASE 1 - 2016 TO 2020
PHASE 2 - 2021 TO 2025
PHASE 3 - 2026 TO 2030
PHASE 4 - 2031 TO 2035
PHASE 5 - 2036 TO ULTIMATE
PLANNING AREA BOUNDARY
WATER SERVICE AREA
EXISTING PIPELINES
WATER SYSTEM CIPs
PHASE 1 - 2016 TO 2020
PHASE 2 - 2021 TO 2025
PHASE 3 - 2026 TO 2030
PHASE 4 - 2031 TO 2035
PHASE 5 - 2036 TO ULTIMATE
Mountain Belle PS & 16" pipeline
Twin Oaks reservoir No. 3
North Twin Oaks 16" pipeline
Coggan pump station
Twin Oaks reservoir No. 3
North Twin Oaks pump station
Huckelberry Lane 12" pipeline
Coggan 16" pipeline
Coggan reservoirs No. 2 & 3
Deer Springs pump station
Deer Springs 16" & 20" pipeline
Deer Springs reservoir No. 2
Wulff 12" pipeline
High Point 12" pipeline
High Point hydro pump station
Rees Road 20" pipeline
Rock Springs 10" pipeline
San Marcos Blvd 20" pipeline
Southlake pump station
Coronado reservoirs No. 2 & 3
Meadowlark reservoirs No. 3 & 4
Schoolhouse pump station
Vallecitos Water District
2015 Urban Water Management Plan
Draft Capital Improvement Program
June 2016
Figure 1-3

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Section 2: Plan Preparation

The Vallecitos Water District (VWD) is considered an "urban water supplier" per CWC §10617 since it provides water for municipal purposes to more than 3,000 customers and it supplies more than 3,000 acre-feet (978 million gallons) of water annually. Table 2-1 below gives the number of connections and volume of water supplied (in million gallons) by VWD for calendar year 2015.

Table 2-1: Public Water Systems

Public Water System Number	Public Water System Name	Number of Municipal Connections 2015	Volume of Water Supplied 2015
PWS CA3710002	Vallecitos Water District	21,932	4,349
	TOTAL	21,932	4,349

NOTES: The number given in the "Municipal Connections for 2015" includes temporary construction meters and non-billed connections. It does not include inactive connections.

Per CWC §10621, each urban water supplier shall update its UWMP al least once every five years. As shown in Table 2-2, this report is an individual UWMP.

Table 2-2: Plan Identification

Select Only One	Type of Plan		Name of RUWMP or Regional Alliance (*if applicable*)
☑	**Individual UWMP**		
	☐	Water Supplier is also a member of a RUWMP	
	☑	Water Supplier is also a member of a Regional Alliance	Olivenhain Regional Alliance
☐	**Regional Urban Water Management Plan (RUWMP)**		

VWD has entered into a Regional Alliance with Olivenhain Municipal Water District (OMWD), Rincon del Diablo Municipal Water District (Rincon MWD), and San Dieguito Water District (SDWD). This Regional Alliance allows individual urban retail water suppliers to combine their individual targets into a regional target. An urban water supplier is required to meet either their own or the regional water conservation target in order to comply with Senate Bill X_{7-7}.

VWD's UWMP will adhere to a DWR-prepared checklist of items based on the Act that must be addressed in an agency's UWMP. This checklist allows an agency to identify where in its UWMP it has addressed each item. This is included in Appendix J. This UWMP shows information in calendar years and in units of million gallons (MG), as detailed below in Table 2-3.

Table 2-3: Agency Identification	
Type of Agency	
☐	Agency is a wholesaler
☑	Agency is a retailer
Fiscal or Calendar Year	
☑	UWMP Tables Are in Calendar Years
☐	UWMP Tables Are in Fiscal Years
Units of Measure Used in UWMP	
Unit	Million Gallons (MG)

To adequately demonstrate regional water supply reliability through the next 20 years, this UWMP quantifies the regional mix of existing and projected local and imported supplies necessary to meet future demands within VWD's service area. Although this UWMP includes specific documentation regarding VWD's supplies, plans submitted by wholesalers provide further details that contribute to the diversification and reliability of supplies in the region.

Reasonable consistency among the UWMPs of VWD and its wholesaler is important to accurately identify the projected supplies available to meet regional demands. In order to facilitate coordination within VWD's service area, VWD established its own internal workgroup and also utilized information from SDCWA's Urban Water Management Plan Working Group. This group provided a forum for exchanging demand and local supply information. SDCWA further coordinated its effort by working with appropriate wastewater agencies. These agencies helped prepare the water recycling element of its

UWMP, which describes the wastewater treatment requirements and water recycling potential for the region.

Table 2-4: 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
San Diego County Water Authority

VWD has provided SDCWA with its projected water use in 5-year increments for 20 years per CWC §10631. This information is incorporated in VWD's 2008 Master Plan and can be found online at http://www.vwd.org/departments/engineering/capital-facilities/master-plan. Correspondence between VWD and the SDCWA in regards to water use projections are included in Appendix D.

VWD has coordinated the preparation of its UWMP with other agencies that it serves water to. In accordance with CWC §10620(d)(2), VWD served 60-day notice to the agencies that have land use jurisdiction within its service area on March 24, 2016 that its UWMP is under review and may be revised in concurrence with updated land use information, demand projections and new legislations. This 60-day notice also stated that a public hearing will be held on June 1, 2016 to receive comments, questions and suggestions regarding VWD's 2015 UWMP. VWD advertised this notice in the local newspaper (San Diego Union Tribune) once per week for two consecutive weeks prior to the public hearing. Copies of the 60-day notices are included in Appendix A.

In addition, VWD has made its draft UWMP available for public review on May 18, 2016 and posted the document online at www.vwd.org in order to engage the involvement of the population within its service area during plan preparation per CWC §10642.

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Section 3: System Description

VWD was formed on March 12, 1955 as a water-only district by a group of local farmers who recognized a need for a more substantial water supply to serve the area than the groundwater found in the San Marcos and Twin Oaks valleys. Originally named the San Marcos County Water District, VWD was initially established as an independent special district pursuant to §30000 et seq., Division 12 of the CWC, with the purpose of bringing outside water into the area through the development and operation of a public water supply system that tapped Colorado River water. With the passage of a $998,000 bond issue in 1956, water system construction began. Initially, water deliveries from the SDCWA to the San Marcos County Water District were handled through the Buena Colorado Municipal Water District. In 1981, the San Marcos County Water District became a member of the SDCWA, from which it now receives 100 percent of its potable water supply. On May 1, 1989, the San Marcos County Water District's name was changed to the Vallecitos Water District.

3.1 Climate

VWD is located in a semi-arid coastal desert environment, which is characteristically Mediterranean with mild temperatures throughout the year. Prolonged rain storms are rare. More than 80 percent of the region's rainfall occurs between December and March. The area typically receives about 15 inches of rainfall annually, with monthly mean temperatures ranging between 55 degrees during the winter and high of 75 degrees during the summer.

Beautiful landmarks, such as Lake San Marcos, and a temperate climate attract residents to live within VWD's service area.

3.2 Demographics

VWD is located in northern San Diego County, bounded by the Olivenhain Municipal Water District to the south, Carlsbad Municipal Water District to the west, Vista Irrigation District to the northwest, Rainbow Municipal Water District to the north, Valley Center Municipal Water District to the northeast, Rincon MWD to the east, and City of Escondido to the southeast. VWD's service area includes corridors on two major freeways. Interstate 15 stretches along VWD's eastern boundary and State Highway 78 transverses though the middle of its service area.

Of VWD's 27,517 acres, approximately 8,845 are currently residential and represent the majority of VWD's water demands. Most of this is single-family homes, although recent development is trending more toward multi-family residential. VWD's residential population has steadily risen over the past 4 decades. According to the San Diego Association of Governments (SANDAG) forecast, VWD's water service population will continue to increase from 93,897 in 2015 to 118,690 by the year 2035. Table 3-1 below shows the current and projected water service population in five-year increments over the next 20 years.

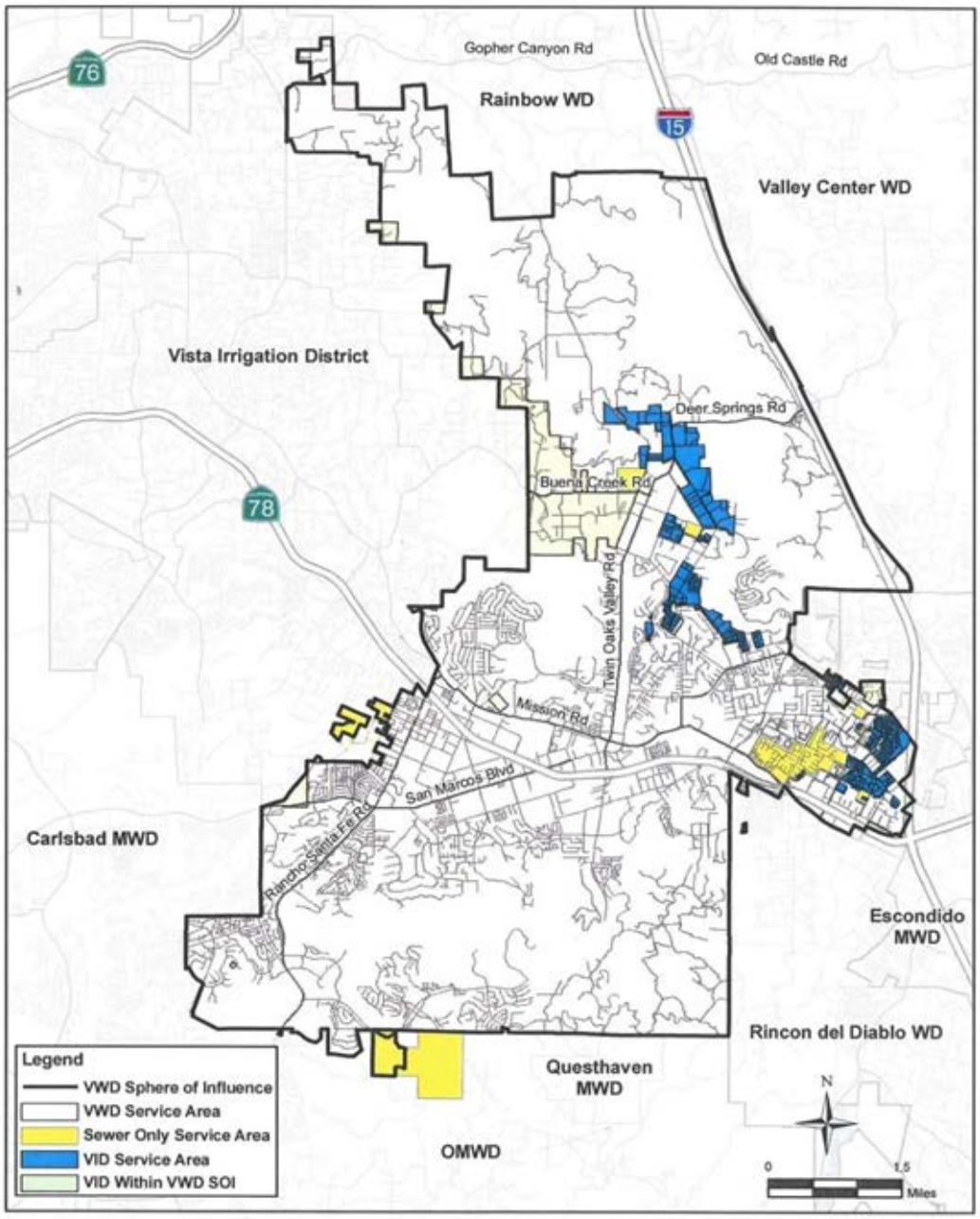
Table 3-1: Population - Current and Projected

Population Served	2015	2020	2025	2030	2035
	93,897	105,889	115,368	117,002	118,690

NOTES: As estimated by the San Diego Association of Governments (SANDAG) using Series 13 population data (water only customers)

3.3 Water Service

VWD serves a 45-square mile potable water service area, as illustrated in Figure 3-1. VWD has approximately 22,000 water meters that delivered over 4,200 million gallons of potable water in 2015, not including losses. Currently, VWD delivers water through 373 miles of pipeline and operates 9 pump stations and 19 potable water storage reservoirs ranging in size from 350,000 gallons to 40 million gallons. VWD's total operational storage capacity is 120.6 million gallons. In 2015, VWD provided an average of 11.1 MGD of potable water to residential, commercial, light industrial, institutional, construction, landscape irrigation and agricultural uses. The water service area is approximately 60% built-out, and additional development is anticipated throughout the timeline of the UWMP.



SOURCE: LAFCO SOI - Affirmed 08-06-2007
VWD GIS Data - 07-17-2008, provided by District

WATER SERVICE AREA
FIGURE 3-1

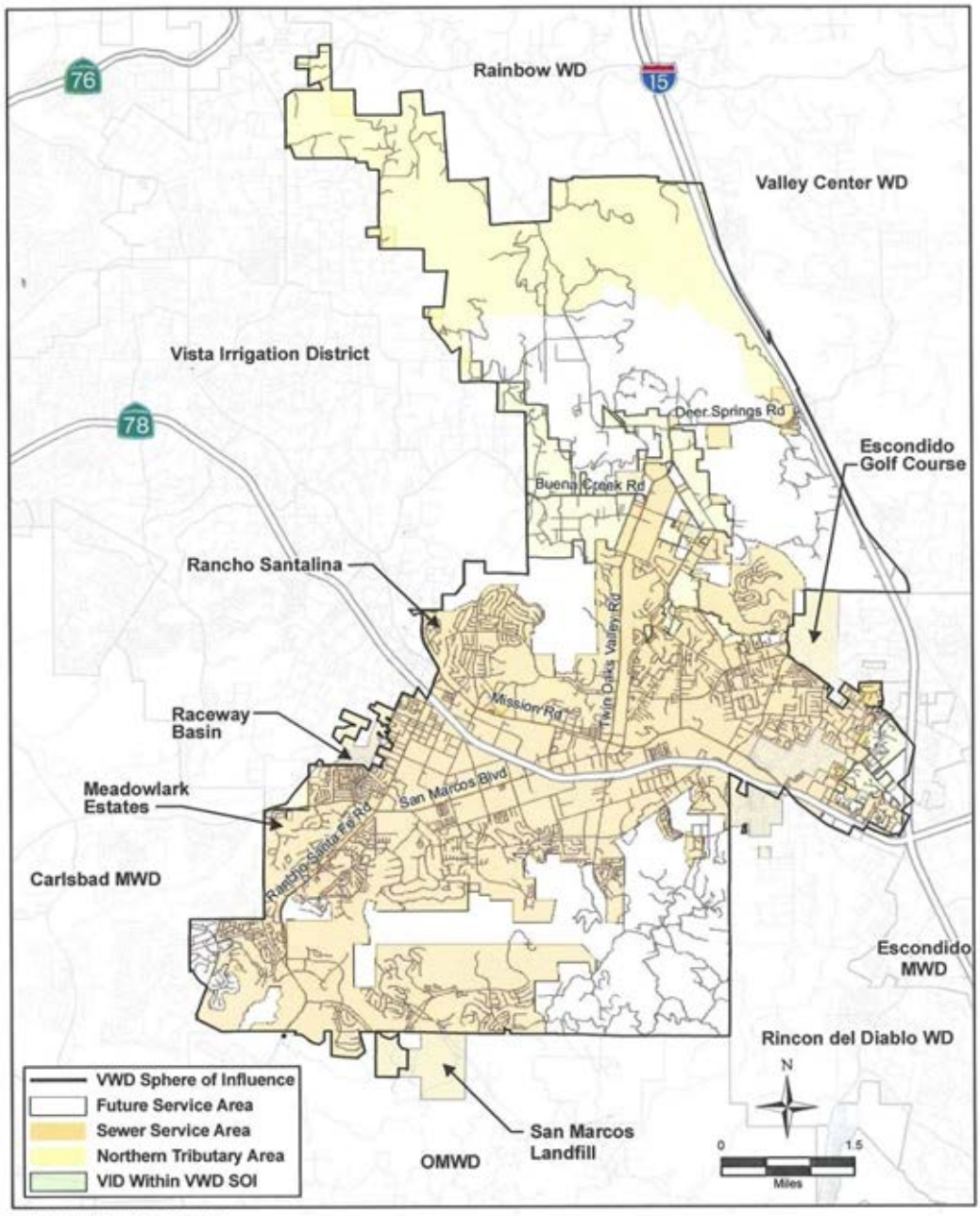
3.4 Wastewater and Recycled Water Service

In 1958, an improvement district was formed to finance the construction of a wastewater collection system. A second improvement district was formed that same year to finance the construction of a wastewater treatment plant, which was completed in 1961. This treatment plant, now known as the Meadowlark Water Reclamation Facility (MRF), was retrofitted in the early 1980's with upgraded treatment technologies and a wastewater treatment and recycled water production capacity of up to 2 MGD.

Today, VWD serves a 23-square mile sewer service area that is currently much smaller in size than VWD's water service area, and is shown in Figure 3-2. This sewer service area can be expanded to the same size as VWD's water service area through annexation of the additional parcels. However, because of its rural nature and land use designations, the Northern Tributary Area is an area that is likely to remain on septic systems and therefore is not likely to be an area where VWD's wastewater infrastructure will be expanded to in the future. The wastewater service area is approximately 65% built-out, and additional development is anticipated throughout the timeline of the UWMP.

VWD has over 20,600 sewer service connections with 4 lift stations and 270 miles of pipeline. The average wastewater flow in VWD's service area is currently 6.0 MGD. This wastewater is conveyed to either the Encina Water Pollution Control Facility (EWPCF) or to MRF for treatment. Expansion of MRF was completed in 2008, increasing its recycled water production capacity to 5 MGD. The Carlsbad Municipal Water District (CMWD) and Olivenhain Municipal Water District (OMWD) purchase 4.5 MGD for non-potable purposes, such as landscape irrigation.

VWD has 270 miles of sewer pipeline, which are regularly maintained to ensure reliable service.



SOURCE: LAFCO SOI - Affirmed 08-06-2007
VWD GIS Data - 07-17-2008, provided by District

WASTEWATER SERVICE AREA
FIGURE 3-2

Although VWD produces up to 5 MGD of recycled water at MRF and maintains the 54 million-gallon (MG) Mahr Reservoir for recycled water storage, VWD does not maintain a recycled water service area within its sphere of influence. All of the recycled water produced is sold to the CMWD and the OMWD. CMWD originally contracted for up to 2.0 MGD during peak summer months, and in 2003, increased that amount to 3.0 MGD. As part of that agreement, VWD also provides CMWD with 32 MG of recycled water storage in the Mahr Reservoir. Also in 2003, the OMWD contracted for up to 1.5 MGD of recycled water and 16 MG of recycled water storage in the Mahr Reservoir. Excess recycled water is disposed of through a failsafe pipeline that connects to the ocean outfall at the EWPCF.

Section 4: System Water Use

Vallecitos Water District (VWD) water demands are primarily residential but also include commercial, industrial, institutional, landscape and agricultural irrigation. VWD has approximately 22,000 water meters that delivered over 4,200 million gallons of potable water in 2015, not including losses.

4.1 Water Uses

Current and projected water use in VWD is divided into seven primary categories: single-family residential, multi-family residential, commercial, industrial, institutional and governmental, landscape and agriculture. There are also four secondary categories of water use, including fire line water use, construction water, water exchanges to the neighboring Vista Irrigation District, and other unmetered and unbilled uses. And finally, there are system losses that account for the difference between actual water deliveries to VWD from its wholesaler and the actual water demands as measured from customer water meters.

Current Water Use

Current water use for VWD was evaluated by examining the monthly metered water deliveries during calendar year 2015. VWD provided an average of 11.1 million gallons per day of potable water to residential, commercial, light industrial, institutional, construction, landscape irrigation and agricultural uses in calendar year 2015. It should be noted that this average demand figure does not include water consumption through fire lines, construction meters, water exchanges or other end delivery facilities that are typically unbilled uses such as fire hydrant testing or system flushing. System and billing losses account for approximately 3.6 percent of the annual volume of potable water delivered from the SDCWA.

VWD serves a predominantly residential community, where nearly 61 percent of the water use is single-family and multi-family residential. Table 4-1 summarizes the demands by use type and each of their 2015 demands.

Table 4-1: Demands for Potable and Raw Water - Actual			
Use Type	2015 Actual		
	Additional Description	Level of Treatment When Delivered	Volume
Single Family		Drinking Water	1,961
Multi-Family		Drinking Water	692
Commercial		Drinking Water	272
Industrial		Drinking Water	48
Institutional/Governmental		Drinking Water	127
Landscape		Drinking Water	616
Agricultural irrigation		Drinking Water	325
Sales/Transfers/Exchanges to other agencies	Exchange with the Vista Irrigation District	Drinking Water	9
Losses	Real Losses	Drinking Water	51
Losses	Apparent Losses	Drinking Water	74
Other	Fire Lines	Drinking Water	17
Other	Construction Water	Drinking Water	103
Other	Unmetered Unbilled	Drinking Water	54
		TOTAL	4,349
NOTES: The volumes for real losses, apparent losses and unmetered unbilled demands were generated using the AWWA Water Audit Software			

VWD's 2015 water demand, including losses, was 4,349 million gallons. This is substantially less than VWD's 2010 water demand of 5,314 million gallons. Conservation efforts due to the drought and the governor's mandatory water use restrictions have reduced water use by over 18 percent compared to 2010 usage.

Projected Water Use

Future water use projections were generated in the 2014 Draft Water, Wastewater and Recycled Water Master Plan through the planning horizon year 2035 utilizing the following steps:

- The approved land use coverage and zoning maps were provided by the land use agencies, including the County of San Diego and the Cities of San Marcos, Carlsbad, Escondido and Vista.

- In VWD's Geographic Information System (GIS) database, all parcels in VWD's service area were attributed with their approved land use condition and unit water demands.
- Ultimate demand projections were then estimated by applying the appropriate unit water demands, based on validated data, to all parcels identified as being served by VWD, or another agency through an exchange agreement.
- Interim period demand projections for years 2020, 2025, 2030 and 2035 were developed by applying the SANDAG Regional Growth Forecast Series 13 Update coverage to these ultimate demand projections.

Table 4-2 presents the projected future potable water demands for VWD in 5-year increments up to the year 2035. The ultimate future build-out water demand projection for VWD is approximately 12,520 million gallons per year.

Table 4-2: Demands for Potable and Raw Water - Projected

Use Type	Additional Description	Projected Water Use			
		2020	2025	2030	2035
Single Family		5,341	5,677	5,911	6,378
Multi-Family		2,662	2,790	2,880	3,061
Commercial		234	243	190	201
Industrial		287	299	307	324
Institutional/Governmental		291	318	296	333
Landscape		378	389	199	217
Agricultural irrigation		405	406	408	412
Sales/Transfers/Exchanges to other agencies	Vista Irrigation District	10	10	10	10
Losses	Real Losses	127	132	136	143
Losses	Apparent Losses	184	192	197	208
Other	Fire Lines	20	20	20	20
Other	Construction Water	100	100	100	100
Other	Unmetered Unbilled	134	140	144	152
	TOTAL	10,173	10,716	10,798	11,559

NOTES: Units are in million gallons. Projected potable water demands taken from the Vallecitos Water District 2014 Draft Water, Wastewater and Recycled Water Master Plan, minus recycled water demands given in Table 4-3.

Recycled Water

VWD is a member of the North San Diego Water Reuse Coalition (NSDWRC), which is a group of twelve agencies that are working together in identifying the benefits of regionalization of existing and planned recycled water systems to further maximize the use of recycled water. Regionalization of facilities will allow recycled water to play an even more significant role in meeting the future water needs in the north San Diego County area. The agencies involved in the NSDWRC include the Olivenhain Municipal Water District, Carlsbad Municipal Water District, San Elijo Joint Powers Authority, Leucadia Wastewater District, City of Oceanside, City of Vista/Buena Sanitation District, Vista Irrigation District, Vallecitos Water District, City of Escondido, Rincon del Diablo Municipal Water District, Santa Fe Irrigation District, and the United States Marine Corps Base Camp Pendleton.

In February 2013, the NSDWRC released a revised Regional Recycled Water Facilities Plan report that identifies new local and regional recycled water projects that could provide additional recycled water supplies to the local water agencies beyond what they could utilize individually. A Final Program Environmental Impact Report for the Project identified in the Regional Recycled Water Facilities Plan (RRWFP) was certified by the Olivenhain Municipal Water District in October 2015. The NSDWRC is currently developing a feasibility study for the Project that is expected to be released in 2016. This RRWFP and projected recycled water demands are further covered in Section 6. However, for purposes of total water demand projections, it's important to note here that the Regional Recycled Water Facilities Plan identified recycled water demands within VWD's service area that could offset potable water use. Table 4-3 lists the existing 2015 and projected future total potable and recycled water demands for VWD.

Table 4-3: Total Water Demands

	2015	2020	2025	2030	2035
Potable and Raw Water *From Tables 4-1 and 4-2*	4,349	10,173	10,716	10,798	11,559
Recycled Water Demand* *From Table 6-4*	0	471	471	771	771
TOTAL WATER DEMAND	4,349	10,644	11,187	11,569	12,330

NOTES: Projected potable water demands taken from the Vallecitos Water District 2014 Draft Water, Wastewater and Recycled Water Master Plan. Projected recycled water demands taken from the North San Diego Water Reuse Coalition's Regional Recycled Water Facilities Plan, revised on February 6, 2013.

Note that potable water demand projections in Table 4-3 are before conservation and SB7 compliance efforts are taken into account. Sections 8 and 9 provide additional detail on water shortage contingency planning and demand management measures, respectively.

4.2 Distribution System Water Losses

Table 4-1 displays VWD's estimated real and apparent water loss for calendar year 2015. These are system losses that account for the difference between actual potable water deliveries to VWD from its wholesaler and the actual potable water demands as measured from customer water meters. In 2015, the total volume of water lost was 124.743 million gallons.

Table 4-4: 12 Month Water Loss Audit Reporting

Reporting Period Start Date	Volume of Water Loss
01/2015	124.743

VWD's calendar year 2015 water loss estimate was determined by utilizing the American Water Works Association Free Water Audit Software, version 5.0. A copy of the audit can be found in Appendix F.

Table 4-2 projects VWD's real and apparent water loss for calendar years 2020, 2025, 2030 and 2035 assuming that the 2015 water loss value of 3.6 percent holds.

4.3 Future Water Demand Projections

Future potable water demand projections are based on the estimates used in the VWD 2014 draft Water, Wastewater and Recycled Water Master Plan. Future recycled water demand projections are based on the North San Diego County Regional Recycled Water Project's Regional Recycled Water Facilities Plan, revised on February 6, 2013. Future water savings are not included in the demand projections in Tables 4-1 through 4-3. Instead, Sections 8 and 9 will describe VWD's approach for dealing with the projected deficiency between water demands and supplies. This approach includes the use of a water shortage contingency plan, tiered water pricing, enforcement actions,

and the use of demand management efforts to reduce demands on VWD's water supply.

VWD has obtained lower income residential (those households with an income below 80 percent of the area's median income, adjusted for family size) locations within its service area from the general plans of the County of San Diego, the City of San Marcos, the City of Vista, the City of Carlsbad and the City of Escondido. These lower income residential demands are included in the projections given in this Section.

Table 4-5: Inclusion in Water Use Projections	
Are Future Water Savings Included in Projections?	No
Are Lower Income Residential Demands Included In Projections?	Yes

For calendar year 2015, the total estimated water use for lower income residents was 198.6 million gallons. The future water use projections for these lower income residential units are as follows:

- In 2020, the projected use is 491.9 million gallons
- In 2025, the projected use is 513.5 million gallons
- In 2030, the projected use is 514.2 million gallons
- In 2035, the projected use is 545.0 million gallons

Section 5: Baselines and Targets

On November 10, 2009, California Governor Arnold Schwarzenegger signed into law a comprehensive water package made up of four bills, including Senate Bill X_{7-7} (SB7). SB7 mandates conservation targets for all urban retail water entities supplying potable municipal water to more than 3,000 end users or delivering more than 3,000 acre feet of potable water per year to end users. The conservation targets of 10 percent by 2015 and 20 percent by 2020 on a gallons-per-capita-per-day (gpcd) water use basis must be complied with in order to be eligible for state water grants and loans. Vallecitos Water District (VWD) is not subject to agricultural-related provisions of SB7 since VWD supplies agricultural water to less than 10,000 acres.

This section includes analysis for VWD's baselines and targets, as well as Regional Alliance targets to meet SB7 mandates for 2015 and 2020. Section 2.55 of the California Water Code allows agencies to form a Regional Alliance and establish a regional target to satisfy SB7. The Regional Alliance includes three additional water agencies, Olivenhain Municipal Water District (OMWD), San Dieguito Water District (SDWD), and Rincon del Diablo Municipal Water District (Rincon MWD). A "Cooperative Agreement to Establish and Carry Out a Regional Alliance in Accordance with Part 2.55 of the California Water Code" is attached in Appendix H.

5.1 SB7 Verification Form

To demonstrate SB7 compliance, retail water agencies are required to complete the SB7 Verification Form and submit the standardized tables provided by the California Department of Water Resources (DWR) with their 2015 UWMPs. The Regional Alliance will also complete the SB7 Verification Form, which will be submitted with the Regional Alliance's UWMP. Please note that the tables in the SB7 Verification Form will follow a different numbering format than the rest of the UWMP, and will begin with "SB X7-7", followed by the table number.

Baseline Compliance Period

California Water Code (CWC) §10608.12 states that urban retail water suppliers that used less than 10 percent recycled water in 2008 must utilize a 10-year baseline period for measuring its SB7 compliance that ends no earlier than December 31, 2004 and no later than December 31, 2010. Since VWD did not use recycled water within its service area in 2008, this SB7 Verification Form will utilize a 10-year baseline period. This 10-

year period range will be between calendar years 1999 and 2008, which provided for the highest average baseline water usage by VWD customers.

CWC §10608.12(b) also requires that urban retail water suppliers calculate water use on a per-capita basis for a 5-year baseline period that ends no earlier than December 31, 2007 and no later than December 31, 2010. This 5-year period will be used to confirm that the selected 2020 compliance target meets the intent of CWC §10608.22, which states that an urban retail water supplier's per capita daily water use reduction shall be no less than 5 percent of base daily per capita water use. The 5-year baseline period range utilized in this SB7 Verification Form will be between 2004 and 2008.

SB X7-7 Table 1: Baseline Period Ranges

Baseline	Parameter	Value	Units
10- to 15-year baseline period	2008 total water deliveries	6,702	Million Gallons
	2008 total volume of delivered recycled water	-	Million Gallons
	2008 recycled water as a percent of total deliveries	0.00%	Percent
	Number of years in baseline period[1, 2]	10	Years
	Year beginning baseline period range	1999	
	Year ending baseline period range[3]	2008	
5-year baseline period	Number of years in baseline period	5	Years
	Year beginning baseline period range	2004	
	Year ending baseline period range[4]	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 Water Code requires that the baseline period is between 10 and 15 years. However, DWR recognizes that some water suppliers may not have the minimum 10 years of baseline data.

[3]The ending year must be between December 31, 2004 and December 31, 2010.

[4]The ending year must be between December 31, 2007 and December 31, 2010.

Service Area Population

Several population estimation methodologies are available to retail water agencies. As shown in SB X7-7 Table 2 below, these can include use of Department of Finance data, persons-per-connection based on census year data, the DWR population tool, or a different methodology proposed by the water agency. VWD utilizes San Diego Association of Governments Series 12 and 13 Regional Growth Forecasts for this

UWMP and SB7 Verification Form, which is consistent with how VWD has estimated population in every publication it has produced since at least 1990.

SB X7-7 Table 2: Method for Population Estimates	
Method Used to Determine Population	
☐	**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

VWD's population estimates utilized for its 10-year baseline period, 5-year baseline period and calendar year 2015 are given below in SB X7-7 Table 3.

SB X7-7 Table 3: Service Area Population		
Year		**Population**
10 to 15 Year Baseline Population		
Year 1	1999	57,856
Year 2	2000	59,968
Year 3	2001	60,481
Year 4	2002	64,154
Year 5	2003	67,191
Year 6	2004	70,668
Year 7	2005	75,992
Year 8	2006	79,986
Year 9	2007	82,967
Year 10	2008	85,910
5 Year Baseline Population		
Year 1	2004	70,668
Year 2	2005	75,992
Year 3	2006	79,986
Year 4	2007	82,967
Year 5	2008	85,910
2015 Compliance Year Population		
2015		93,897

Annual Gross Water Use

CWC §10608.12(g) defines "gross water use" as the total volume of water entering the urban retail water supplier's distribution system, excluding recycled water, wholesale water sold and agricultural water, and the net change in water storage. VWD's sole source of water into its distribution system is potable imported wholesale water, the San Diego County Water Authority.

SB X7-7 Table 4-A: Volume Entering the Distribution System(s)				
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 *From 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	4,578	-	4,578
Year 2	2000	5,365	-	5,365
Year 3	2001	5,164	-	5,164
Year 4	2002	5,723	-	5,723
Year 5	2003	5,688	-	5,688
Year 6	2004	6,308	-	6,308
Year 7	2005	5,918	-	5,918
Year 8	2006	6,379	-	6,379
Year 9	2007	7,115	-	7,115
Year 10	2008	6,702	-	6,702
5 Year Baseline - Water into Distribution System				
Year 1	2004	6,308	-	6,308
Year 2	2005	5,918	-	5,918
Year 3	2006	6,379	-	6,379
Year 4	2007	7,115	-	7,115
Year 5	2008	6,702	-	6,702
2015 Compliance Year - Water into Distribution System				
2015		4,349	-	4,349

VWD's water wholesaler, the San Diego County Water Authority, has not reported any meter error in any of its turnout facilities that serve VWD. Therefore, "Corrected Volume Entering Distribution System" = "Volume Entering Distribution System" as shown above in SB X7-7 Table 4-A.

VWD's only deductions include water delivered for agricultural use and changes in total water storage. Therefore, "Annual Gross Water Use" = total water supplied + decrease in water storage – increase in water storage – agricultural water use, as shown in SB X7-7 Table 4 below.

SB X7-7 Table 4: Annual Gross Water Use

Baseline Year *From SB X7-7 Table 3*		Volume Into Distribution System *From SB X7-7 Table 4-A*	Deductions					Annual Gross Water Use
			Exported Water	Change in Dist. System Storage (+/-)	Indirect Recycled Water	Water Delivered for Agricultural Use	Process Water	
10 to 15 Year Baseline - Gross Water Use								
Year 1	1999	4,578	-	6	-	655	-	3,918
Year 2	2000	5,365	-	15	-	793	-	4,556
Year 3	2001	5,164	-	(8)	-	764	-	4,408
Year 4	2002	5,723	-	12	-	847	-	4,864
Year 5	2003	5,688	-	(7)	-	799	-	4,896
Year 6	2004	6,308	-	(0)	-	865	-	5,443
Year 7	2005	5,918	-	4	-	695	-	5,220
Year 8	2006	6,379	-	3	-	793	-	5,583
Year 9	2007	7,115	-	4	-	802	-	6,309
Year 10	2008	6,702	-	32	-	627	-	6,042
10 - 15 year baseline average gross water use								**5,124**
5 Year Baseline - Gross Water Use								
Year 1	2004	6,308	-	(0)	-	865	-	5,443
Year 2	2005	5,918	-	4	-	695	-	5,220
Year 3	2006	6,379	-	3	-	793	-	5,583
Year 4	2007	7,115	-	4	-	802	-	6,309
Year 5	2008	6,702	-	32	-	627	-	6,042
5 year baseline average gross water use								**5,720**
2015 Compliance Year - Gross Water Use								
2015		4,349	-	1	-	325	-	**4,023**

VWD's uses do not include indirect recycled water or process water. In addition, VWD does not export water to other retail agencies except on an exchange basis. Therefore, VWD's Annual Gross Water Use will not include deductions for these categories.

Average Daily per Capita Water Use

The average daily per capita water use is calculated by dividing the volume of "Annual Gross Water Use" by the service area population, per SB X7-7 Table 5 below.

SB X7-7 Table 5: Gallons Per Capita Per Day (GPCD)				
Baseline Year *From SB X7-7 Table 3*		Service Area Population *From SB X7-7 Table 3*	Annual Gross Water Use *From SB X7-7 Table 4*	Daily Per Capita Water Use (GPCD)
10 to 15 Year Baseline GPCD				
Year 1	1999	57,856	3,918	186
Year 2	2000	59,968	4,556	208
Year 3	2001	60,481	4,408	200
Year 4	2002	64,154	4,864	208
Year 5	2003	67,191	4,896	200
Year 6	2004	70,668	5,443	211
Year 7	2005	75,992	5,220	188
Year 8	2006	79,986	5,583	191
Year 9	2007	82,967	6,309	208
Year 10	2008	85,910	6,042	193
10-15 Year Average Baseline GPCD				**199**
5 Year Baseline GPCD				
Baseline Year *From SB X7-7 Table 3*		Service Area Population *From SB X7-7 Table 3*	Gross Water Use *From SB X7-7 Table 4*	Daily Per Capita Water Use
Year 1	2004	70,668	5,443	211
Year 2	2005	75,992	5,220	188
Year 3	2006	79,986	5,583	191
Year 4	2007	82,967	6,309	208
Year 5	2008	85,910	6,042	193
5 Year Average Baseline GPCD				**198**
2015 Compliance Year GPCD				
2015		93,897	4,023	**117**

The results of SB X7-7 Tables 5 show the following:

- The 10-year baseline period identified a baseline water usage for VWD of 199.2 gpcd, as defined by CWC §10608.12.
- The 5-year baseline period identified a baseline water usage of 198 gpcd in order to meet the intent of CWC §10608.22, which states that an urban retail water supplier's per capita daily water use reduction shall be no less than 5 percent of base daily per capita water use.
- For calendar year 2015, VWD's water usage was calculated to be 117 gpcd.

SB X7-7 Table 6: Gallons per Capita per Day *Summary From Table SB X7-7 Table 5*	
10-15 Year Baseline GPCD	199
5 Year Baseline GPCD	198
2015 Compliance Year GPCD	117

In accordance with CWC §10608.20(b), there are four methods available to retail water agencies to determine urban water use targets:

1. 80 percent of the 10 or 15-year baseline per capita water usage
2. Per capita daily water use as the sum of
    a. 55 gpcd plus dedicated irrigation,
    b. the Model Water Efficient Landscape Ordinance water efficiency equivalent, and
    c. Commercial, Industrial, and Institutional (CII) use equivalent to 90 percent of baseline CII water use by 2020
3. 95 percent of the applicable state hydrological region target as set forth in California's draft 20 X 2020 Water Conservation Plan
4. Savings by water sector as developed by the DWR

VWD has chosen the first method (80 percent of the baseline per capita water usage) and calculated the baseline and target gpcd consistent with guidance provided by DWR and the California Urban Water Conservation Council in accordance with CWC §10608.20(h)(1).

SB X7-7 Table 7: 2020 Target Method		
Target Method		Supporting Documentation
☑	Method 1	SB X7-7 Table 7A
☐	Method 2	SB X7-7 Tables 7B, 7C, and 7D
☐	Method 3	SB X7-7 Table 7-E
☐	Method 4	Method 4 Calculator

Target GPCD Reductions

CWC §10608.16 mandates that VWD achieve a 20 percent reduction from baseline usage by 2020. VWD has calculated the 2020 target (80 percent of baseline per capita water usage) at 159.4 gpcd. These baseline and target figures were developed individually rather than on a regional basis.

SB X7-7 Table 7-A: Target Method 1 20 Percent Reduction	
10-15 Year Baseline GPCD	**2020 Target GPCD**
199	**159**

The 5-year baseline period identified a maximum year 2020 compliance target of 188 gallons per capita per day in order to meet the intent of CWC §10608.22. Since the calculated 2020 target is less than this maximum 2020 target, the confirmed 2020 target will remain at 159.4 gpcd as shown in SB X7-7 Table 7-F below.

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[1]	Calculated 2020 Target[2]	**Confirmed 2020 Target**
198	188	159	**159**

[1]Maximum 2020 Target is 95 percent of the 5 Year Baseline GPCD
[2]2020 Target is calculated based on the selected Target Method, see SB X7-7 Table 7 and corresponding tables for agency's calculated target.

CWC §10608.16 also mandates that VWD achieve a 10 percent reduction from baseline usage by 2015. VWD has calculated the 2015 target (90 percent of baseline per capita water usage) at 179.3 gpcd.

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**
159	199	**179**

5.2 VWD Baselines and Targets Summary

CWC §10608.16 mandates that VWD achieve a 20 percent reduction from baseline usage by 2020 and an incremental reduction of 10 percent by 2015. VWD has calculated the 2015 target (90 percent of baseline per capita water usage) at 179.3 gpcd, and the 2020 target (80 percent of baseline per capita water usage) at 159.4 gpcd. Table 5-1 summarizes the baseline periods used by VWD and the 2015 and 2020 usage targets that were calculated in Section 5.1.

Table 5-1: Baselines and Targets Summary					
Baseline Period	Start Year	End Year	Average Baseline GPCD*	2015 Interim Target *	Confirmed 2020 Target*
10-15 year	*1999*	*2008*	*199*	*179*	*159*
5 Year	*2004*	*2008*	*198*		
*All values are in Gallons per Capita per Day (GPCD)					

The actual capita daily water use for the fiscal year ending in 2015 is 117 gpcd, which is already below the 2020 target, as shown in Table 5-2. Under the State Water Resources Control Board's (SWRCB's) Emergency Regulation for Statewide Urban Water Conservation, VWD has achieved a cumulative savings from June 2015 through March 2016 of 25.2 percent from the 2013 baseline established under the regulation. Although the 2015 actual includes implementation of extraordinary conservation measures and water use restrictions due to the drought, these restrictions have effectively provided the reduction necessary to comply with SB7. Demand management

measures delineated in Section 9 present VWD's plan to maintain its emphasis on conservation to ensure that the demands do not increase again to previous levels when drought alert levels are decreased and water awareness wanes.

Table 5-2: 2015 Compliance

Actual 2015 GPCD*	2015 Interim Target GPCD*	Optional Adjustments to 2015 GPCD					Did Supplier Achieve Targeted Reduction for 2015?
		Extraordinary Events*	Economic Adjustment*	Weather Normalization*	TOTAL Adjustments*	Adjusted 2015 GPCD*	
117	179	0	0	0	0	117	Yes
**All values are in Gallons per Capita per Day (GPCD)*							

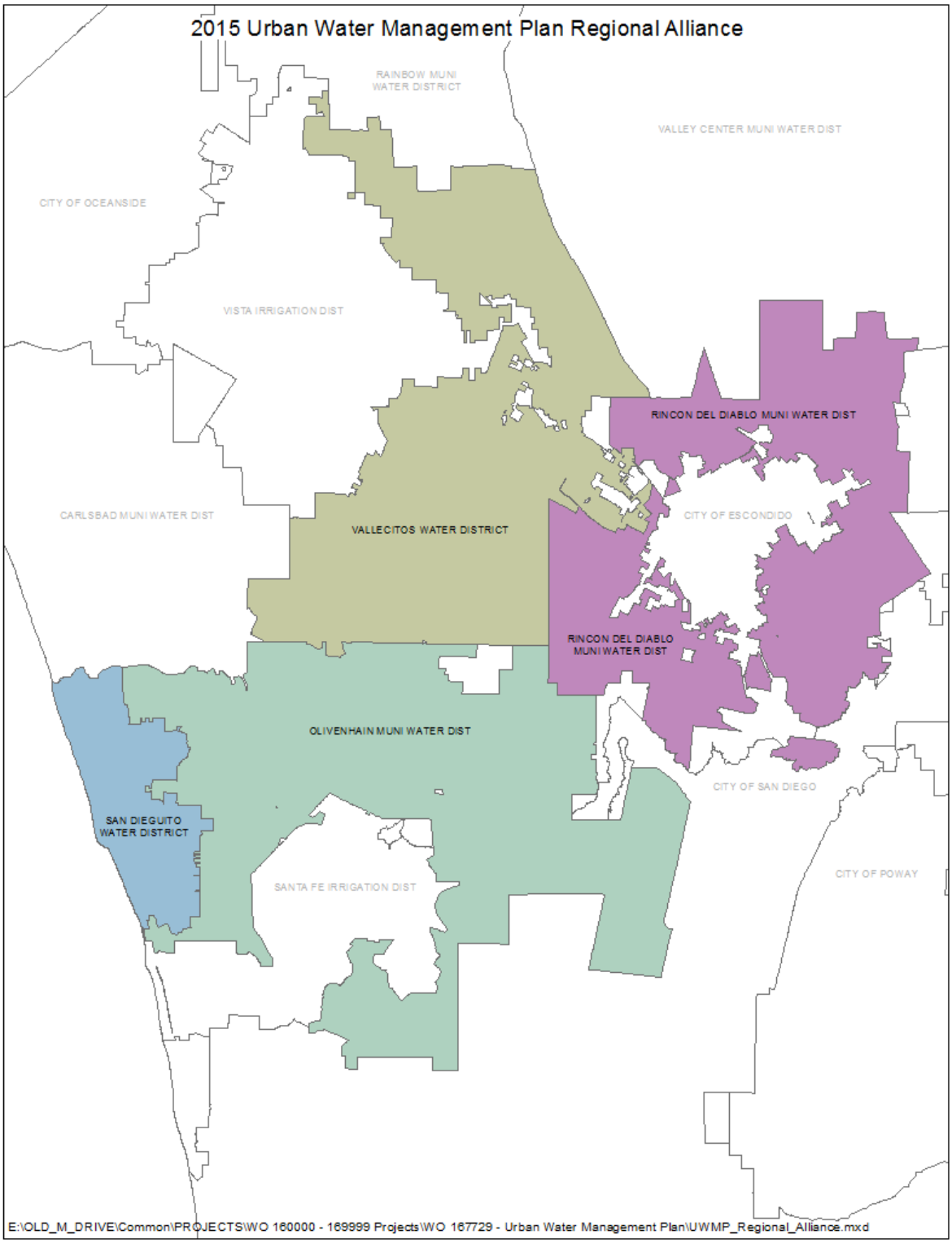
5.3 Regional Alliance Target

Urban retail water suppliers are eligible to form a regional alliance in accordance with CWC §10608.28(a) if the suppliers meet at least one of several specified criteria, such as (1) the suppliers are recipients of water from a common wholesale water supplier, or (2) the suppliers are located within the same hydrologic region, which for purposes of a regional alliance refers to the 10 hydrologic regions as shown in the California Water Plan.

VWD has formed a regional alliance with OMWD, SDWD, and Rincon MWD pursuant to CWC §10608.28(a) to cooperatively determine and report progress toward achieving their water use targets on a regional basis. All of these agencies are recipients of water from a common wholesale water supplier, in this case the San Diego County Water Authority (SDCWA), and all of the members are located within the South Coast Hydrologic Region as shown in the California Water Plan. Figure 5-1 illustrates the service areas of these agencies.

These agencies have entered into a cooperative agreement to establish and carry out a regional alliance, and they have jointly notified DWR of the formation of their regional alliance (this agreement is included in Appendix H). The members have prepared an urban water use target for the year 2020 and an interim urban water use target for 2015 for the region, which is further set forth below and within each of the other member's individual Urban Water Management Plans (UWMPs).

Figure 5-1: Regional Alliance Agencies



Furthermore, each member of the regional alliance has developed its own urban water use target for the year 2020 and interim urban water use target for the year 2015, along with other supporting data and determinations, all of which is included in each member's individual UWMP.

The Regional Alliance urban water use target was created using Option 1, which is based on the weighted average, by population, of the Regional Alliance agencies' individual urban water use and interim urban water use targets. The weighed baseline table is shown below. The Regional Alliance had a weighted 10-year baseline water demand of 254 gpcd.

SB X7-7 RA1 - Weighted Baseline				
Participating Member Agency Name	**10-15 year Baseline GPCD***	**Average Population During 10-15 Year Baseline Period**	**(Baseline GPCD) X (Population)**	**Regional Alliance Weighted Average 10-15 Year Baseline GPCD**
OMWD	352	54,418	19,155,136	
Rincon MWD	284	26,434	7,507,256	
SDWD	189	35,385	6,687,765	
VWD	199	70,517	14,032,883	
			-	
Regional Alliance Total	1,024	186,754	47,383,040	**254**

To obtain the Regional Alliance weighted average 2020 target demand, the same weighted averaging approach was utilized, this time using the individual agencies' 2020 target water demands. The weighted 2020 target table is shown below. The Regional Alliance has a weighted 2020 demand target of 204 gpcd.

SB X7-7 RA1 - Weighted 2020 Target				
Participating Member Agency Name	**2020 Target GPCD***	**2015 Population**	**(Target) X (Population)**	**Regional Alliance Weighted Average 2020 Target**
OMWD	282	70,522	19,887,204	
Rincon MWD	227	27,476	6,237,052	
SDWD	151	37,200	5,617,200	
VWD	159	93,897	14,929,623	
Regional Alliance Total	819	229,095	46,671,079	**204**

Option 1 of the Regional Alliance methodology requires that the Regional Alliance achieve a 20 percent reduction from baseline usage by 2020. The methodology also requires that the Regional Alliance achieve a 10 percent reduction from baseline usage by 2015. These target demands, as well as the weighted average baseline for the Regional Alliance, are summarized in the following table.

SB X7-7 RA1 - 2015 Target		
Weighted Average 10-15 year Baseline GPCD	Weighted Average 2020 Target	Regional Alliance 2015 Interim Target
254	204	229

Actual 2015 water demands for the Regional Alliance agencies and the weighted average actual demand are shown below. The Regional Alliance had a weighted 2015 water demand of only 170 gpcd.

SB X7-7 RA1 - 2015 GPCD (Actual)				
Participating Member Agency Name	**2015 Actual GPCD[1]**	**2015 Population**	**(2015 GPCD) X (2015 Population)**	**Regional Alliance 2015 GPCD (Actual)**
Olivenhain MWD	246	70,522	17,348,412	
Rincon MWD	187	27,476	5,138,012	
SDWD	147	37,200	5,468,400	
VWD	117	93,897	10,985,949	
Regional Alliance Totals	697	229,095	38,940,773	170

The Regional Alliance did not make an economic adjustment to its 2015 actual water demands. The summary of results included on the following table show that the Regional Alliance achieved its required 10 percent reduction target for 2015.

SB X7-7 RA1 - Compliance Verification				
2015 GPCD (Actual)	2015 Interim Target GPCD	Economic Adjustment *Enter "0" if no adjustment*	Adjusted 2015 GPCD	Did Alliance Achieve Targeted Reduction for 2015?
170	229	0	170	YES

As noted above, the actual water demand for 2015 was in part a result of the implementation of extraordinary water conservation measures and restrictions in response to drought conditions and compliance with the SWRCB's emergency regulation.

Section 6: System Supplies

Since its formation in 1955, the Vallecitos Water District (VWD) has received 100 percent of its water supply from the San Diego County Water Authority (SDCWA), of which it is one of 24 member agencies. The SDCWA, in turn, obtains most of its water from the Metropolitan Water District of Southern California (MWD), which obtains its water from the Sacramento-San Joaquin Delta in Northern California via the State Water Project, and from the Colorado River via the Colorado River Aqueduct. VWD is fully aware how uncertain these water supplies have become. VWD's 2007 Integrated Water Resources Plan (IRP) analyzed several local water supply alternatives to supplement its existing SDCWA water supply, including seawater desalination, recycled water purchasing, treated water purchases from other agencies and groundwater feasibility. Starting in 2012, VWD took action on these IRP recommendations and has executed two separate agreements to expand its water supply portfolio.

This section describes VWD's existing and proposed water supply resources. VWD's own wastewater and recycled water systems are also discussed. And finally, this section discusses other local water supply alternatives that VWD's IRP recommended for further study.

Colorado River

(Photo courtesy of the Metropolitan Water District of Southern California)

6.1 Purchased or Imported Water

As stated in this section's introduction, VWD has traditionally received 100 percent of its water supply from the SDCWA. But starting in 2012, VWD executed two water purchase agreements that, while still technically water purchases, have significantly expanded its water supply portfolio and operational flexibility. These include the commitment to purchase at least 1,140 million gallons (MG) per year of desalinated seawater from the SDCWA and having the Olivenhain Municipal Water District (OMWD) treat at least 900 MG per year of raw water supplied by the SDCWA. All of VWD's supply sources are further described below.

SDCWA Description and Supplies

The SDCWA was established pursuant to legislation adopted by the California State Legislature in 1943 to provide a supplemental supply of water as the region's civilian and military population expanded and local resources became insufficient to meet the region's water-supply needs. Before 1947, the San Diego region relied on local surface water runoff in normal and wet weather years and on groundwater pumped from local aquifers during dry years when stream flows were reduced. In 1947, water began to be imported from the Colorado River via a single pipeline that connected to MWD's Colorado River Aqueduct.

Since 1950, the SDCWA became more reliant on imported water supplies from MWD to meet the needs of its member agencies. After experiencing severe shortages from MWD during the 1987-1992 drought, the SDCWA began aggressively pursuing actions to diversify the region's supply sources. These include the Water Conservation and Transfer Agreement with the Imperial Irrigation District in 1998, the lining of the All-American and Coachella Canals, and the purchase of a water supply from Poseidon Resources and the Carlsbad Desalination Project.

Imported water supplies are delivered to the SDCWA member agencies through a system of large-diameter pipelines, pumping stations, and reservoirs. The pipelines that deliver supplies from MWD are divided into two aqueduct alignments, both of which originate at Lake Skinner in southern Riverside County and run in a north to south direction through the SDCWA service area. MWD's ownership of these pipelines extends to a "delivery point" six miles into San Diego County. From there, Pipelines 1 and 2 comprise the First Aqueduct, which reaches from the delivery point to the San Vicente Reservoir. Pipelines 3, 4, and 5 form the Second Aqueduct, which provides VWD with the majority of its potable water supply.

The SDCWA has also focused on developing local and alternate water supplies.

SDCWA-Imperial Irrigation District Water Conservation and Transfer Agreement

From 1998 to 2003, the SDCWA entered into a series of agreements to obtain a portion of the Imperial Irrigation District's allocation of Colorado River water. The series of agreements resulted in the SDCWA initially receiving 3,250 MG of water from the Imperial Irrigation District in 2003, with the volume increasing annually until it reaches 65,000 MG in 2021. In 2015, the SDCWA received 32,500 MG of water. 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.

More information regarding the project's cost and financing, the Quantification Settlement Agreement or other related contracts can be found in the Water Supply sections of MWD's 2015 Regional Urban Water Management Plan and SDCWA's 2015 Urban Water Management Plan.

All-American Canal and Coachella Canal Lining Projects

As part of the 2003 Quantification Settlement Agreement, the SDCWA contracted for 25,300 MG of conserved water from projects that lined portions of the All-American and Coachella Canals. 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. The project reduced the loss of water that occurred through seepage, and the conserved water is now delivered to the SDCWA.

Coachella Canal lining project

The Coachella Canal project constructed a 37-mile long parallel canal adjacent to the existing Coachella Canal. The lining of the All-American Canal project constructed a concrete-lined canal parallel to the 24 miles of the existing All-American Canal. The combined conserved water from both projects will provide the San Diego region with an additional 2.77 trillion gallons over the 110-year life of the agreement.

The October 10, 2003 exchange agreement between the SDCWA and MWD provides for the delivery of conserved water from the canal lining projects. SDCWA pays MWD applicable wheeling rates. In the exchange agreement, MWD will deliver the canal lining water for the entire 110-year term of the Allocation Agreement.

More information on the cost and financing, contracts and other information related to All-American Canal and Coachella Canal Lining Projects can be found in the Water Supply sections of MWD's 2015 Regional Urban Water Management Plan and SDCWA's 2015 Urban Water Management Plan.

Carlsbad Seawater Desalination Facility

To continue to diversify its future water resource portfolio and provide a new drought-proof water source, the SDCWA identified seawater desalination as a potential supply for meeting future demands. The Carlsbad Desalination Facility is a fully-operational, private desalination plant located at the Encina Power Station site in the City of Carlsbad. The plant was constructed and is owned by Poseidon Resources Corporation. The plant was operational on December 23, 2015.

The Carlsbad Desalination Facility now provides a highly reliable local supply of 18,250 million gallons per year of potable water supply for the region, available in both normal and dry hydrologic conditions. A 54-inch pipeline conveys product water from the desalination plant 10.5 miles east to the SDCWA's Second Aqueduct. The water is then be conveyed 5 miles north to the SDCWA's Twin Oaks Valley Water Treatment Plant facility, where it will be blended with treated imported water and subsequently distributed into SDCWA's existing aqueduct system.

More information on cost and financing, contracts, and other information related to the Carlsbad Seawater Desalination Facility can be found in the Section 4 of the SDCWA's 2015 UWMP.

Additional VWD Water Sources

VWD currently obtains 100 percent of its water supply from the SDCWA either directly or indirectly. VWD anticipates relying on the SDCWA for a large portion of its water supply in the foreseeable future, as shown in Section 6.9.

On August 25, 2015, VWD executed a water purchase agreement with the SDCWA to obtain at least 1,140 MG per year of desalinated seawater. This provides VWD with a drought-proof potable water supply that also can serve VWD during an emergency outage of the SDCWA aqueduct system.

On November 21, 2012, VWD's Board of Directors authorized the execution of an agreement with OMWD for the treatment of at least 900 MG of SDCWA-provided raw water per year. The WPA benefits OMWD by allowing their treatment plant to operate more efficiently by reducing unused capacity. VWD benefits by the following:

1. Reduce treatment costs allowing a partial offset to future increased costs from desalinated water,
2. Increase VWD's water portfolio by adding another potable water supply point,
3. Receive water in the south end of the District avoiding power costs associated with pumping from northern reservoirs, and
4. Reduce nitrification issues in the District's southern reservoirs. Less nitrification will free up staff time and save on treatment chemical costs. The water will only be a few minutes old instead of days old (from Lake Skinner).

OMWD treats raw water from Olivenhain Reservoir, which is owned by the SDCWA. Like with the desalinated water agreement, this water purchase agreement with OMWD relies on SDCWA-controlled water sources and thus is also an indirect SDCWA water supply. It should be noted that the source of raw SDCWA-provided water is imported water from the Colorado River and State Water Project and is not considered to have the same level of reliability and drought resilience as the desalinated seawater from the Carlsbad Desalination Project.

6.2 Groundwater

Historically, local groundwater supplies have not been used by VWD due to questionable quantity and relatively poor quality. In 1996, a draft groundwater feasibility analysis was performed for VWD to determine the quantity and quality of groundwater potentially available for use as a local groundwater supply source.

The draft groundwater feasibility analysis determined that the volume of water stored in the fractured bedrock aquifer beneath the VWD service area likely ranges between 97,000 and 389,000 acre-feet. The estimated volume of water stored in the combined alluvium and residuum units likely ranges between 9,700 and 38,600 acre-feet. Groundwater yields for wells would likely be small, averaging about 114 gallons per minute.

Groundwater quality in the aquifer is characterized by moderately high levels of total dissolved solids and occurrences of relatively high concentrations of bicarbonate, sodium, chloride and nitrate. The groundwater would require treatment prior to introduction into VWD's potable water distribution system.

The 1996 draft groundwater feasibility analysis concluded that the storage capacity of the alluvium and residuum is too small to be considered as a long-term source, although the fractured bedrock aquifer may be considered further as a possible source. However, the expected yields from wells in the VWD service area, combined with the

water quality issues that would need to be resolved, would not be likely to produce groundwater at an economically viable rate even in the short-term.

VWD is considering funding an updated groundwater supply alternatives evaluation for investigating the potential for utilizing the non-adjudicated San Marcos Groundwater Basin as a future water supply source. This is discussed in further detail in Section 6.8.

Table 6-1: Groundwater Volume Pumped						
☑	Supplier does not pump groundwater. The supplier will not complete the table below.					
Groundwater Type	Location or Basin Name	2011	2012	2013	2014	2015
TOTAL		0	0	0	0	0

6.3 Surface Water

VWD does not draw water from streams, lakes or reservoirs for use in its potable water distribution system. As mentioned in Section 6.1, VWD currently obtains 100 percent of its water supply from the SDCWA either directly or indirectly. There are no plans for VWD to self-supply surface water as part of its water supply.

6.4 Stormwater

VWD does not intentionally divert stormwater for beneficial use within its potable water distribution system. VWD currently obtains 100 percent of its water supply from the SDCWA either directly or indirectly. However, VWD will investigate the integration of stormwater capture as part of a non-potable supply source in its Recycled Water Facilities Plan. This is discussed in further detail in Section 6.8.

6.5 Wastewater and Recycled Water

VWD serves a 23-square mile sewer service area as illustrated in Figure 6-1. This sewer service area can be expanded to the same size as VWD's water service area through annexation of the additional parcels. However, because of its rural nature and

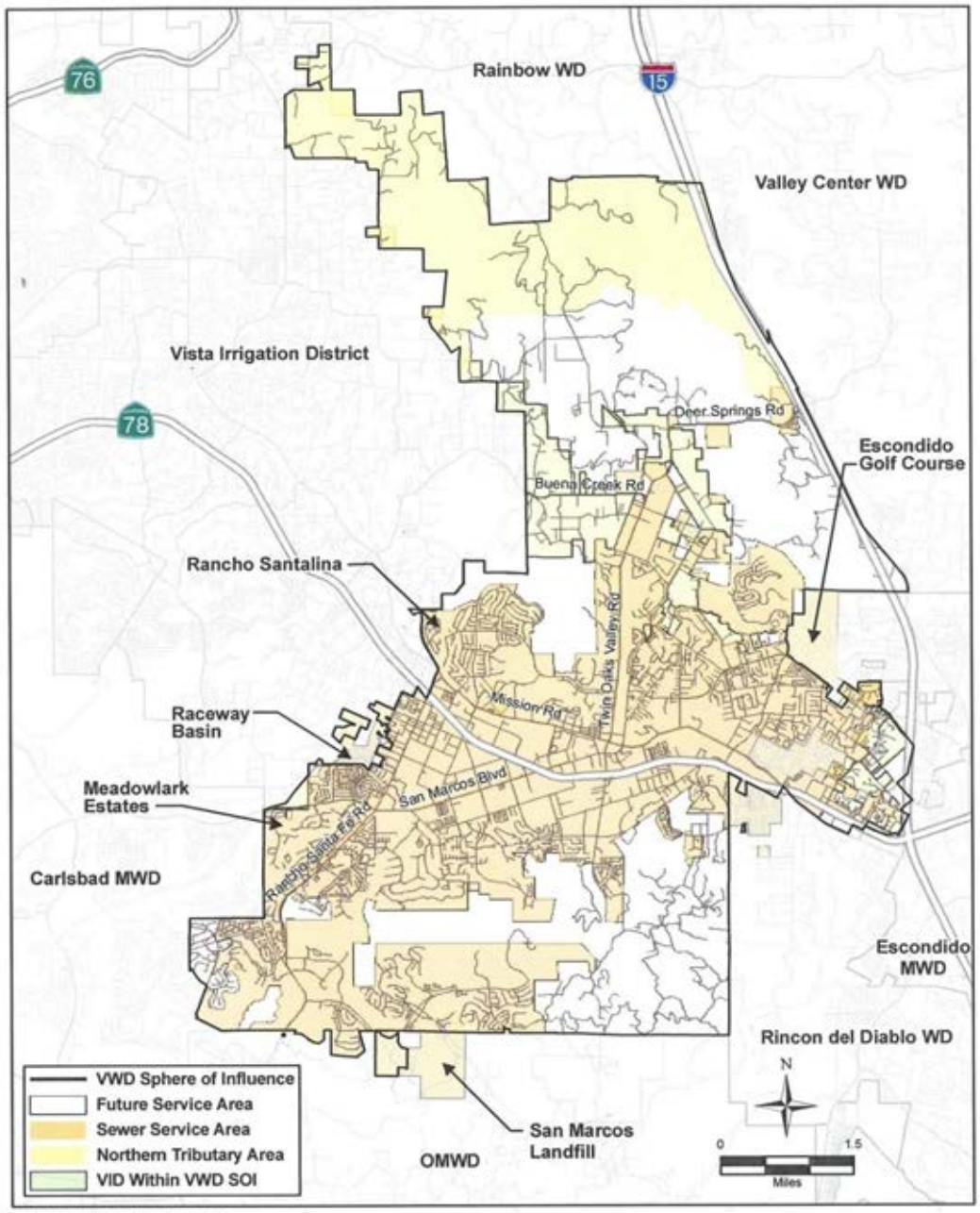
land use designations, the Northern Tributary Area is an area that is likely to remain on septic systems and therefore is not likely to be an area where VWD's wastewater infrastructure will be expanded to in the future.

Wastewater collected from the sewer service area is conveyed to either the Encina Water Pollution Control Facility (EWPCF) or to the Meadowlark Water Recycling Facility (MRF) for treatment. MRF is essentially a scalping plant that extracts water for projection of recycled water. Wastewater that is not rerouted to MRF flows directly to the EWPCF in the City of Carlsbad for both liquids and solids treatment. MRF does not treat for solids; instead, solids are pumped from MRF to the EWPCF for treatment.

Expansion of MRF was completed in 2008, increasing its recycled water production capacity to 5 MGD. The Carlsbad Municipal Water District (CMWD) and Olivenhain Municipal Water District (OMWD) purchase 4.5 MGD for non-potable purposes, such as landscape irrigation.

Although VWD produces up to 5 MGD of recycled water at MRF, it does not maintain a recycled water service area within its sphere of influence. All of the recycled water produced is sold to the CMWD and the OMWD. Excess recycled water is disposed of through a failsafe pipeline that connects to the ocean outfall at the EWPCF.

Table 6-2 summarizes information on collection of wastewater within VWD's sewer service area.



SOURCE: LAFCO SOI - Affirmed 08-06-2007
VWD GIS Data - 07-17-2008, provided by District

WASTEWATER SERVICE AREA

FIGURE 6-1

Table 6-2: Wastewater Collected Within Service Area in 2015						
☐	There is no wastewater collection system. The supplier will not complete the table below.					
52.7	Percentage of 2015 service area covered by wastewater collection system					
90.2	Percentage of 2015 service area population covered by wastewater collection system					
Wastewater Collection			**Recipient of Collected Wastewater**			
Name of Wastewater Collection Agency	Wastewater Volume Metered or Estimated?	Volume of Wastewater Collected from UWMP Service Area 2015	Name of Wastewater Treatment Agency Receiving Collected Wastewater	Treatment Plant Name	Is WWTP Located Within UWMP Area?	Is WWTP Operation Contracted to a Third Party?
Vallecitos Water District	Metered	1,197	Vallecitos Water District	Meadowlark Water Reclamation Facility	Yes	No
Vallecitos Water District	Metered	1,008	Encina Wastewater Authority	Encina Water Pollution Control Agency	No	No
Total Wastewater Collected from Service Area in 2015:		2,205				

As shown in Table 6-2 above, MRF is located within VWD's sewer service area while the EWPCF is not. MRF is the only wastewater treatment facility within VWD's sewer service area. Table 6-3 below gives information on MRF's treatment level, 2015 treatment volumes, method of disposal (for that portion of treated water that is not sold as recycled water), and discharge location.

Table 6-3: 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.								
Treatment Plant Name	Discharge Location Name or Identifier	Discharge Location	Method of Disposal	Does This Plant Treat Wastewater Generated Outside the Service Area?	Treat-ment Level	2015 volumes			
						Waste-water Treated	Discharged Treated Waste-water	Recycled Within Service Area	Recycled Outside of Service Area
Meadow-lark Water Recycling Facility	Encina Wastewater Authority	Ocean outfall of the Encina Water Pollution Control Facility	Ocean outfall	No	Tertiary	1,197	213	0	984
					Total	1,197	213	0	984

VWD is actively involved in planning for the use of recycled water in the near future. VWD is a member of the North San Diego Water Reuse Coalition and has participated in the production of its Regional Recycled Water Facilities Plan (RRWFP) that investigates expanded recycled water use within the north San Diego County area. The RRWFP is intended to assist the North San Diego County water and wastewater agencies in identifying the benefits of regionalization of existing and planned recycled water systems to further maximize the use of recycled water. Regionalization of facilities will allow recycled water to play an even more significant role in meeting the future water needs in the north San Diego County area. The North San Diego Water Reclamation Coalition intends to pursue U.S. Bureau of Reclamation Title XVI grant funds for the construction of various recycled water facilities within each of the north county agencies. In furtherance of this effort, a Final Program Environmental Impact Report was certified by OMWD for the Regional Recycled Water Project in October 2015.

Chapter 4 of the RRWFP identifies 771 million gallons per year in potential future recycled water demands within VWD's sphere of influence. Approximately 471 million gallons per year could potentially be delivered to customers by Year 2020 via short-term expansion projects. Another 300 million gallons per year could be developed in a more long-term timeframe.

Table 6-4 below summarizes the potential recycled water demands within VWD's sphere of influence and their beneficial use types.

Table 6-4: 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:	Vallecitos Water District and City of Escondido
Name of Agency Operating the Recycled Water Distribution System:	Vallecitos Water District
Supplemental Water Added in 2015	None
Source of 2015 Supplemental Water	N/A

Beneficial Use Type	General Description of 2015 Uses	Level of Treatment	2015	2020	2025	2030	2035
Agricultural irrigation							
Landscape irrigation (excludes golf courses)	Currently no recycled water use	Tertiary	0	305	305	478	478
Golf course irrigation	Currently no recycled water use	Tertiary	0	166	166	293	293
Commercial use							
Industrial use							
Geothermal and other energy production							
Seawater intrusion barrier							
Recreational impoundment							
Wetlands or wildlife habitat							
Groundwater recharge (IPR)*							
Surface water augmentation (IPR)*							
Direct potable reuse							
Other *(Provide General Description)*							
		Total:	0	471	471	771	771

VWD does not currently own a recycled water distribution system. Thus, VWD did not use recycled water in 2010 or 2015.

Table 6-5: 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		**2010 Projection for 2015**	**2015 Actual Use**
Agricultural irrigation			
Landscape irrigation (excludes golf courses)			
Golf course irrigation			
Commercial use			
Industrial use			
Geothermal and other energy production			
Seawater intrusion barrier			
Recreational impoundment			
Wetlands or wildlife habitat			
Groundwater recharge (IPR)			
Surface water augmentation (IPR)			
Direct potable reuse			
Other	*Type of Use*		
Total		0	0

To offset potable water use, VWD could potentially purchase recycled water from the City of Escondido's Hale Avenue Resource Recovery Facility (HARRF), an 18.0-MGD treatment facility located in the southwest section of Escondido, and construct facilities to deliver this water to customers within the VWD service area.

Escondido's recycled water distribution system extends to the VWD boundary. Recycled water purchases from Escondido offer the advantage of being a highly reliable supply and immune from the effects of prolonged drought and SDCWA aqueduct shutdowns. Pumping and additional storage may be required to distribute the recycled water within the VWD service area, depending on the location of the customers and volume of recycled water served. Several parks, schools and golf courses could be served by extending the recycled water system through VWD's service area.

Currently, all of the recycled water produced at MRF is sold to the CMWD and the OMWD. However, VWD has evaluated expanding MRF's capacity and has discovered that the production of an additional 1.5 million gallons per day of recycled water at MRF may be possible with certain equipment and structural upgrades.

Production of recycled water to meet such demands may come from the expansion of the Vallecitos Water District's MRF, purchase of recycled water from the City of Escondido's HARRF, or both, as shown below in Table 6-6.

Table 6-6: 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.		
Page 6-13	Provide page location of narrative in UWMP		
Name of Action	Description	Planned Implementation Year	Expected Increase in Recycled Water Use
North San Diego Water Reclamation Coalition	Regional Recycled Water Facilities Plan - Short Term Demand Projections	2020	471
North San Diego Water Reclamation Coalition	Regional Recycled Water Facilities Plan - Long Term Demand Projections	2030	300
		Total	771

6.6 Desalinated Water Opportunities

As stated in Section 6.1, VWD has executed a water purchase agreement with the SDCWA on August 25, 2015 to obtain at least 1,140 million gallons (3,500 acre feet) per year of desalinated seawater. This provides VWD with a drought-proof potable water supply that also can serve VWD during an emergency outage of the SDCWA aqueduct system.

6.7 Exchanges or Transfers

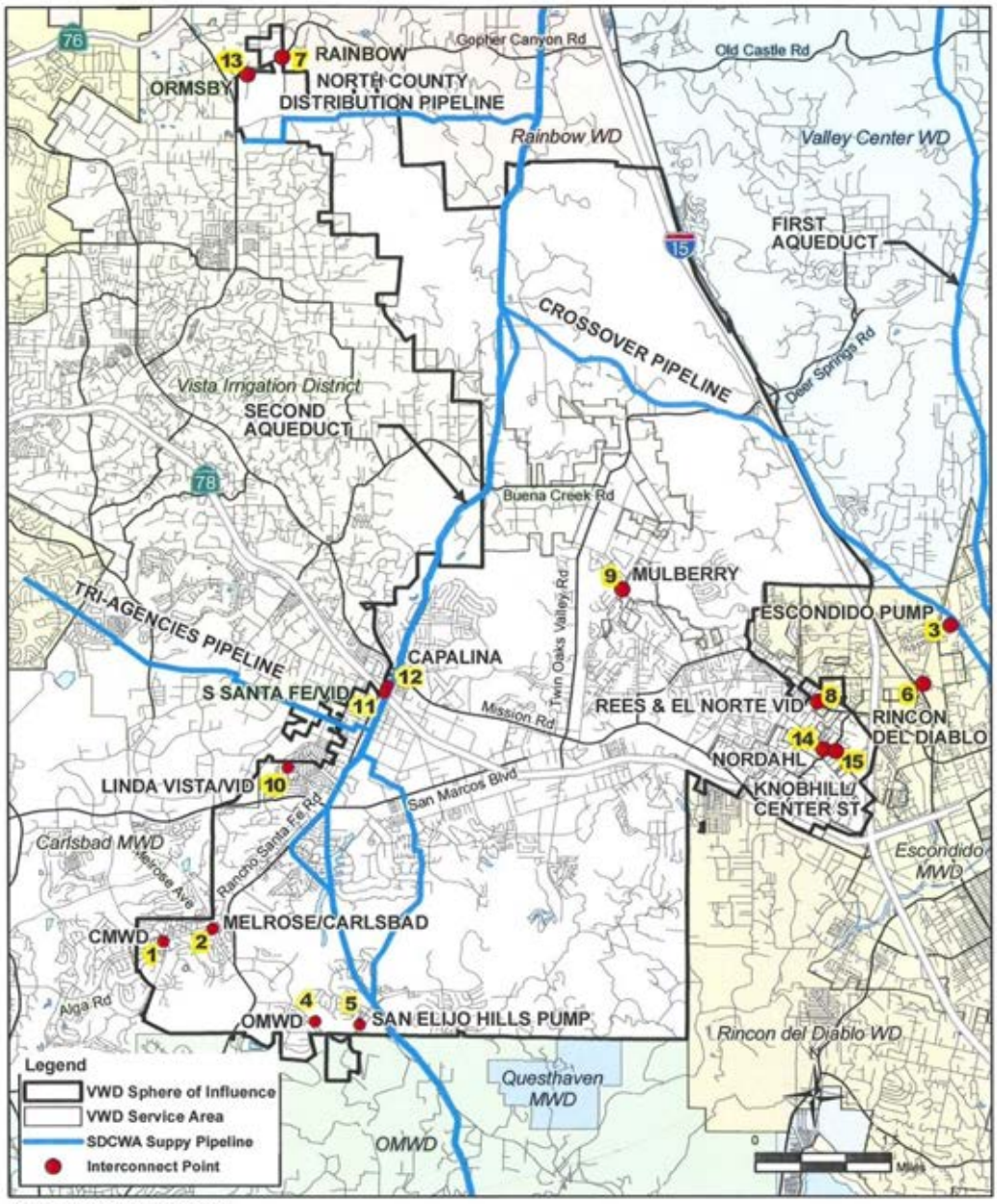
VWD has interagency service agreements with the Olivenhain Municipal Water District (OMWD) and the Carlsbad Municipal Water District (CMWD) through one of its SDCWA connections. This service is provided through an interagency service agreement entitled, “Construction of a Water Transmission and Storage System – Questhaven Pipeline”, dated July 1, 1978 and its supplement dated September 1979, in which VWD is designated as the lead agency.

The OMWD capacity is limited per the agreement to 6.47 MGD and the CMWD connection capacity is limited to 8.61 MGD. Potable water quantities delivered to OMWD and CMWD are metered and reported to the SDCWA, and the SDCWA bills the respective agencies directly.

VWD has a total of 15 inter-agency service connections to neighboring water districts, including the interagency service connections to OMWD and CMWD as previously discussed. The remaining 13 are available to VWD only under emergency conditions. VWD has emergency connections with the CMWD (1), Vista Irrigation District (8), the City of Escondido (1), Rincon del Diablo Municipal Water District (1), Rainbow Water District (1), and OMWD (1), as shown below and on Figure 6-2. These connections are limited in their ability to deliver flows, and are be used for short term outages within VWD or the neighboring agency. Annual water exchanges are typically low-volume and cumulatively do not exceed 10 million gallons per year.

Reference & Location (see Figure 6-2)	Name	Size (in)	Service to		Pressure Zone	Approx. Flow Rate (gpm)
			System	Connecting Agency		
2	Melrose/Carlsbad Crosstie	8	VWD	CMWD	815	900
3	Escondido Pump Connection	8	EWD	VWD	920	1,000
5	San Elijo Hills Pump Connection	8	OMWD	VWD	877	2,000
6	Rincon del Diablo Crosstie	8	VWD	Rincon	920	900
7	Rainbow Crosstie	8	VWD	RMWD	900	1,800
8	Rees & El Norte VID Crosstie	8	VWD/VID	VID/VWD	920	450
9	Mulberry Crosstie	6	VWD	VID	920	900
10	Linda Vista/VID Crosstie (Stone Gate PRV)	6	VWD	VID	920	450
11	S. Santa Fe Crosstie	8	VWD	VID	920	450
12	Capalina Crosstie	8	VWD	VID	920	450
13	Ormsby Crosstie	8	VWD	VID	900	450
14	Nordahl Crosstie	12	VWD	VID	920	N/A
15	Knobhill/Center St Crosstie	N/A	VWD	VID	920	N/A

Source: VWD 2008 Water, Wastewater, and Recycled Water Master Plan



SOURCE: LAFCO SOI - Affirmed 08-06-2007
VWD GIS Data - 07-17-2008, provided by District

INTER-AGENCY AND EMERGENCY SERVICE CONNECTIONS

FIGURE 6-2

Vallecitos Water District
2015 Urban Water Management Plan

6.8 Future Water Projects

VWD has constantly investigated alternative water supply sources. Within the last 10 years, VWD has participated in the following endeavors:

1. VWD's 2007 Integrated Water Resources Plan identified several water supply alternatives. Two of these alternatives, seawater desalination and Treated Water Purchases from the Olivenhain Water Treatment Plant, have been implemented in 2012 and 2015, respectively, as discussed in Section 6.1. Other improvements that the IRP recommended for further study include:
   - Recycled Water Purchases from the City of Escondido
   - Expanded Transmission Capacity from the SDCWA
   - Treated Water Purchases from the Escondido-Vista Water Treatment Plant
   - Treated Water Purchases from the City of Oceanside's Weese Water Treatment Plant
2. VWD is a member of the North San Diego Water Reuse Coalition and has been actively involved in the production of its Regional Recycled Water Facilities Plan that investigates expanded recycled water use within the north San Diego County area. The Facilities Plan identifies new local and regional recycled water projects that can provide additional recycled water supplies to the member agencies, including VWD, as soon as year 2020.
3. VWD has also commenced work on a Recycled Water Facilities Plan that will investigate recycled water opportunities, which include:
   - Expansion of VWD's wholesale recycled water supplies to adjacent agencies
   - Development of non-potable reuse alternatives, including expansion of VWD's Meadowlark Water Recycling Facility (MRF) and development of a recycled water distribution system in conjunction with the North San Diego Water Reclamation Coalition
   - Potable reuse opportunities by partnering with adjacent agencies
4. As mentioned in Section 6.2, VWD is considering funding an updated groundwater supply alternatives evaluation for investigating the potential for utilizing the San Marcos Groundwater Basin as a future water supply source.

It is important to note that all of the alternatives mentioned above, with the exception of recycled water, are considered concept-phase only, and are not included in VWD's projected water supply programs. The recycled water supply projects currently being considered by VWD as part of the North San Diego Water Reuse Coalition are described in Section 6.5 and are summarized below in Table 6-7.

Table 6-7: 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.
Page 6-17	Provide page location of narrative in the UWMP

Name of Future Projects or Programs	Joint Project with other agencies?		Description	Planned Implementation Year	Planned for Use in Year Type	Expected Increase in Water Supply to Agency
Expansion of the Meadowlark Water Recycling Facility	Yes	North County Recycled Water Coalition	Expansion of the treatment plant's capacity from 5 MGD to 6.5 MGD	2020-2030	All Year Types	550 MG per Year
Recycled Water from the Hale Avenue Resource Recovery Facility	Yes	North County Recycled Water Coalition	Purchase of Recycled Water from the City of Escondido	2020-2030	All Year Types	40 MG - 771 MG per Year

6.9 Summary of Existing and Planned Water Sources

Actual water supplies for VWD in 2015 are summarized below in Table 6-8. Please note that purchased San Diego County Water Authority water supplies also include direct purchases of drought resilient desalinated seawater from the Claude "Bud" Lewis Carlsbad Desalination Plant as a local supply owned by VWD. VWD also benefits from the desalinated seawater that is part of the SDCWA's regional supplies.

Table 6-8: Water Supplies — Actual				
Water Supply	Additional Detail on Water Supply	2015		
		Actual Volume	Water Quality	Total Right or Safe Yield
Purchased or Imported Water	From the San Diego County Water Authority	4,349	Drinking Water	N/A
Desalinated Seawater	As a local water supply owned by VWD through a Water Purchase Agreement with SDCWA	0	Drinking Water	1,140
Supply from Storage	Supply to existing reservoirs	-1	Drinking Water	120
	Total	4,348		1,260

Projected future water supplies for VWD are summarized below in Table 6-9. San Diego County Water Authority water supplies are based on their long-range demand forecast. The Reasonably Available Volume from the San Diego County Water Authority also includes 1,140 MG per year of contracted desalinated seawater supply from the Claude "Bud" Lewis Carlsbad Desalination Plant.

Table 6-9: Water Supplies — Projected					
Water Supply	Additional Detail on Water Supply	Projected Water Supply			
		2020	2025	2030	2035
		Reasonably Available Volume	Reasonably Available Volume	Reasonably Available Volume	Reasonably Available Volume
Purchased or Imported Water	From the San Diego County Water Authority	5,180	6,266	6,741	7,141
Desalinated Seawater	As a local water supply owned by VWD through a Water Purchase Agreement with SDCWA	1,140	1,140	1,140	1,140
Supply from Storage	Supply from existing reservoirs	123	134	142	146
Recycled Water	From the Meadowlark Water Recycling Facility and/or City of Escondido	471	471	771	771
	Total	6,914	8,011	8,794	9,198

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Section 7: Water Supply Reliability Assessment

Under the California Urban Water Management Planning Act (Act), all Urban Water Management Plans (UWMPs) must include an assessment of the reliability of their water supplies. The water supply and demand assessment must compare the total projected water use with the projected water supply, in 5-year increments, through the next 20 years. This section presents a comparison of the water demands and supplies within the Vallecitos Water District's (VWD's) service area, and assesses supply versus demand during normal years, single dry water years, and multiple dry water years.

7.1 Constraints on Water Sources

VWD currently purchases 100 percent of its potable water supply from the San Diego County Water Authority (SDCWA). Though VWD is guided by its Draft 2014 Water, Wastewater and Recycled Water Master Plan (Draft 2014 Master Plan) to assure future reliable water supplies, it is dependent on the water supply abilities of its wholesaler, the SDCWA. According to the SDCWA's 2015 UWMP, the SDCWA anticipates meeting all future demands of its member agencies in normal and single dry-year scenarios. However, some level of shortage could potentially be experienced during the multiple dry-year scenarios. Strategies to address these deficiencies, including SDCWA's Carryover Storage Program and Dry-Year Transfer Program, are discussed in Section 11.2.4 of SDCWA's 2015 UWMP.

The purchase of 1,140 MG (3,500 acre feet) per year of contracted desalinated seawater supply through the San Diego County Water Authority from the Claude "Bud" Lewis Carlsbad Desalination Plant will improve the overall reliability of VWD's available water supply during multiple dry-year water shortages. Other methods, including increased implementation of demand management measures and use of recycled water, are discussed in Sections 9 and 6.8, respectively.

The quality of VWD's existing water sources is discussed in SDCWA's 2015 UWMP since VWD currently purchases 100 percent of its potable water supply from the SDCWA. The SDCWA's 2015 UWMP also discusses how its water management strategies may be affected by water quality and supply reliability.

7.2 Reliability by Type of Year

Table 7-1 shows the basis of water year assessment for single-dry and multiple-dry year supplies expected to be available compared to those supplies in an average year. "Average Year" hydrology, as used in this UWMP plan, was taken as the average between the years 1960 and 2013. This base year information matches the SDCWA 2015 UWMP.

Table 7-1: Basis of Water Year Data

Year Type	Base Year	Available Supplies if Year Type Repeats	
		☐	Quantification of available supplies is not compatible with this table and is provided elsewhere in the UWMP. Location
		☑	Quantification of available supplies is provided in this table as either volume only, percent only, or both.
		Volume Available	% of Average Supply
Average Year	1960-2013		100%
Single-Dry Year	2015		107%
Multiple-Dry Years 1st Year	2013		107%
Multiple-Dry Years 2nd Year	2014		109%
Multiple-Dry Years 3rd Year	2015		112%

As shown above, approximately 107% of average supply from the SDCWA is anticipated to be available for single-dry years. For multiple dry years, the following percentages of average supply are expected to be available from the SDCWA:

- 107.0 percent for the 1st dry year
- 109.2 percent for the 2nd dry year
- 112.3 percent for the 3rd dry year

Normal year demand projections for VWD over the next 20 years were calculated in Table 4-3, based on the Draft 2014 Master Plan. In its 2015 UWMP, the SDCWA has developed long-range supply forecasts for normal-year water reliability assessment for each of its member agencies. These supply forecasts were shown in Table 6-9 along with projected VWD storage and recycled water supplies over the next 20 years.

If VWD water demands develop as called for in its Draft 2014 Master Plan, there will be a significant shortfall in projected supplies. The comparison of total VWD normal year supplies and demands, in units of million gallons, is given below in Table 7-2.

Table 7-2: Normal Year Supply and Demand Comparison

	2020	2025	2030	2035
Supply totals *(from Table 6-9)*	6,914	8,011	8,794	9,198
Demand totals *(from Table 4-3)*	10,644	11,187	11,569	12,330
Difference	(3,730)	(3,176)	(2,775)	(3,132)

To mitigate for these projected water supply shortfalls, VWD will need to implement demand-reduction actions and conservation measures. These actions are further discussed in Sections 8 and 9.

In addition to a normal water-year, an assessment is required to compare the total water supply available to VWD with the total projected water use under single dry year and multiple dry year scenarios over the next 20 years, in 5-year increments. The SDCWA's assessment includes existing and planned supplies from the Imperial Irrigation District transfer, canal lining projects and seawater desalination, which are considered "drought-proof" supplies. With the previous years leading up to the single dry-year being wet or average hydrologic conditions, SDCWA should have adequate supplies in storage to cover potential shortfalls in core supplies to its member agencies.

SDCWA estimated single dry-year demands in 5-year increments from 2020 through 2035. According to models used during preparation of the SDCWA's 2015 UWMP, water demand is expected to increase in the dry years above normal-year demands by 7 percent. However, note in Table 6-9 that VWD also anticipates having future recycled water and potable water supply from storage available. These supplies are not expected to increase in dry years.

Table 7-3 shows, in units of million gallons, VWD's single dry-year assessment in five-year increments through the year 2035.

Table 7-3: Single Dry Year Supply and Demand Comparison				
	2020	2025	2030	2035
Supply totals	7,362	8,539	9,359	9,799
Demand totals	11,399	11,985	12,398	13,225
Difference	(4,037)	(3,446)	(3,039)	(3,426)

Similar to the single dry-year assessment, SDCWA estimated multiple dry-year demands in 5-year increments from 2015 through 2030. According to models used during preparation of the SDCWA's 2015 UWMP, water demand is expected to increase in the multiple dry years above normal-year demands as follows:

- 107.0 percent for the 1st dry year
- 109.2 percent for the 2nd dry year
- 112.3 percent for the 3rd dry year

Table 7-4 shows, in units of million gallons, VWD's multiple dry water year assessments in 5-year increments through the year 2035.

Table 7-4: Multiple Dry Years Supply and Demand Comparison					
		2020	2025	2030	2035
First year	Supply totals	7,359	8,533	9,349	9,781
	Demand totals	11,389	11,970	12,379	13,193
	Difference	(4,030)	(3,437)	(3,030)	(3,412)
Second year	Supply totals	7,494	8,691	9,518	9,958
	Demand totals	11,623	12,216	12,633	13,464
	Difference	(4,129)	(3,525)	(3,115)	(3,506)
Third year	Supply totals	7,691	8,922	9,763	10,216
	Demand totals	11,953	12,563	12,992	13,847
	Difference	(4,262)	(3,641)	(3,229)	(3,631)

As shown in Tables 7-3 and 7-4, single dry and multiple dry year scenarios present potential water supply shortages for VWD over the 20-year planning horizon. If these shortfalls occur as projected, additional conservation measures will be necessary to balance supply against the demands in the VWD's service area. Sections 8 and 9 further describe the demand-reduction actions and conservation measures that VWD plans on implementing to balance supplies and demands.

VWD continues to work closely with the SDCWA for future water supply planning. Based on the information provided by the SDCWA, the water supply available to VWD is considered to be reliable.

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Section 8: Water Shortage Contingency Planning

The Act requires water agencies to incorporate a water shortage contingency plan (WSCP) focusing on the allocation of water supplies and the management of water consumption during periods of shortage due to extended drought or a water emergency. This section describes the District's policies and ordinances to deal with water shortages. The District purchases its entire potable water supply from the San Diego County Water Authority (SDCWA). While most of the supply is directly purchased from the SDCWA, additional supplies come from the Olivenhain Municipal Water District's David C. McCollom Water Treatment Plant via an existing interconnection as well as a direct connection to the Claude "Bud" Lewis Desalination Plant in Carlsbad, California. The District's water shortage contingency plan illustrates specific water supply conditions that trigger the activation of voluntary and mandatory rationing efforts. It explains what the ability is to meet projected short-term demands during extended dry periods and emphasizes some of the significant proactive measures that enhance the District's ability to respond to interruptions in water supply should a natural or man-made disaster occur. The contingency plan outlines the planned response to failures in the infrastructure of the water system in the event of an earthquake, extensive power outage, or other catastrophic event. Finally, this section provides details about the prohibitions and penalties against specific water uses during water shortages, and evaluates potential impacts to the water funds should water sales decrease as a result of supply shortages.

8.1 Stages of Action

All water agencies are required to administer a strategy – an adopted ordinance or terms of service – to meet water waste prevention. For compliance, VWD has adopted Ordinances No. 162 and 195, which are included in Appendix E. Ordinance 162 is patterned after the conservation actions of its water wholesaler, the SDCWA, and establishes regulations to be implemented during times of declared water shortages or emergencies to conserve water. This ordinance establishes four levels of drought response with corresponding actions to be implemented in times of shortage or emergency, with increasing restriction on water use in response to worsening drought or emergency conditions, and decreasing available supplies.

- **Level 1 – Drought Watch**: With this alert, VWD will increase public outreach and take action to encourage voluntary conservation practices.
- **Level 2 – Drought Alert**: With this alert, VWD will implement mandatory conservation practices to reduce water use by up to 20 percent. These practices include limiting landscape irrigation and repairing leaks within 72 hours of notification.
- **Level 3 – Drought Critical**: With this alert, VWD will implement mandatory conservation practices to reduce water use by up to 40 percent. Additional conservation practices include the prohibition of filling pools or fountains and washing vehicles and require repair of leaks within 48 hours of notification. With minor exceptions, no new potable water services will be allowed during a Level 3 Drought alert.
- **Level 4 – Drought Emergency**: With this alert, VWD will implement mandatory conservation practices to reduce water use above 40 percent in order for VWD to have adequate supplies to meet anticipated demands. Additional conservation practices include prohibited landscape irrigation, excluding commercial growers or nurseries, and the repair of leaks within 24 hours of notification.

Table 8-1 provides a summary of the conservation practices required at the four stages of drought conditions.

Table 8-1: Stages of Water Shortage Contingency Plan

Stage	Supply Reduction %	Water Supply Condition
Level 1 – Drought Watch	Up to 10 percent	Voluntary measures
Level 2 – Drought Alert	Up to 20 percent	Mandatory restrictions
Level 3 – Drought Critical	Up to 40 percent	Critical shortages
Level 4 – Drought Emergency	More than 40 percent	Emergency

Ordinance 195 was implemented in response to Governor Brown's Executive Order No. B-29-15, directing that the State Water Resources Control Board to develop and impose restrictions on urban water users to achieve a statewide 25 percent reduction in potable urban water use.

8.2 Prohibitions on End Uses

Prohibitions on end uses are as defined in Ordinances 162 and 195 which are listed in Appendix E respectively. The District is currently in a Level 2 Drought Alert condition.

Table 8-2: Mandatory Restrictions and Prohibitions on End Uses			
Stage	Restrictions and Prohibitions on End Users	Included in which Ordinance	Penalty, Charge, or Other Enforcement?
2	*Landscape - Restrict or prohibit runoff from landscape irrigation*	*162*	*Yes*
2	*Landscape - Limit landscape irrigation to specific times*	*162*	*Yes*
2	*Landscape - Limit landscape irrigation to specific days*	*162*	*Yes*
2	*Landscape - Prohibit certain types of landscape irrigation*	*162 and 195*	*Yes*
	Landscape - Prohibit irrigation 48 hours after rain	*195*	*Yes*
2	*Landscape - Other landscape restriction or prohibition*	*162 and 195*	*Yes*
2	*CII - Lodging establishment must offer opt out of linen service*	*162*	*Yes*
2	*CII - Restaurants may only serve water upon request*	*162*	*Yes*
2	*Water Features - Restrict water use for decorative water features, such as fountains*	*162*	*Yes*
2	*Other water feature or swimming pool restriction*	*162*	*Yes*
2	*Other - Customers must repair leaks, breaks, and malfunctions in a timely manner*	*162 and 195*	*Yes*
2	*Other - Require automatic shut of hoses*	*162*	*Yes*
2	*Other - Prohibit use of potable water for construction and dust control*	*162*	*Yes*
2	*Other - Prohibit use of potable water for washing hard surfaces*	*162*	*Yes*
2	*Other - Prohibit vehicle washing except at facilities using recycled or recirculating water*	*162*	*Yes*

Landscape Irrigation

Current restrictions on landscape irrigation include:

- Residential and commercial landscape irrigation will be limited to no more than two unassigned days per week and no more than once a week from November through May. (Excludes commercial growers and nurseries).
- Irrigation using sprinklers will be limited to no more than 8 minutes per watering station per day. (Systems using water-efficient devices are excluded).
- Prevent water waste associated with inefficient landscape irrigation, as well as flows onto non-targeted areas such as nearby properties, hardscapes, or roadways.
- Irrigate only before 10 a.m. and after 6 p.m.
- Use a hand-held hose equipped with a positive shut-off nozzle or bucket to irrigate landscapes not connected to an automatic system.

- Outdoor watering is prohibited during and up to 48 hours after a measureable rain event.
- Potable water may not be used to irrigate ornamental turf within public street right of ways, including adjacent landscape strips.

Commercial, Industrial, and Institutional (CII)

Current restrictions on CII water usage include:

- Serve and refill water in restaurants only upon request.
- Offer guests of commercial lodging the option of not laundering towels and linens daily.

Water Features and Swimming Pools

Current restrictions on water features and swimming pools include:

- Stop operation of ornamental fountains, unless re-circulated water is used.

8.3 Penalties, Charges, Other Enforcement of Prohibitions

The VWD takes progressive action when responding to water waste prohibitions. Violators are typically contacted first by phone and given an opportunity to voluntarily comply. Ongoing water wasters are subsequent sent a Notice of Violation, followed by a fine. Administrative fines can be levied for each violation of a provision of the ordinances as follows:

- $100 fine for first violation
- $200 fine for second violation if it occurred within one year of the prior violation
- $500 fine for each additional violation if it occurred within one year of the prior violation
- Enforcement for further violations increases in severity and may include installation of a flow-restricting device in the meter, imprisonment, a fine up to $1,000, and/or discontinuing service to the property where the violation occurred.

Additionally, the District initiated drought patrols in response to the Governor's Executive Order per the media coverage below:

http://www.nbcsandiego.com/news/local/San-Marcos-Vallecitos-Water-District-Drought-Water-Waste-Patrols-302969821.html

http://www.10news.com/news/water-waste-patrols-vallecitos-district-hopes-it-works

http://fox5sandiego.com/2015/05/11/water-patrol-tracking-down-water-wasters-in-san-marcos/

http://www.kusi.com/story/29030948/san-marcos-water-district-to-enforce-drought-regulations

In calendar year 2015 water waste complaints were compiled as follows:

January -29
February -38
March -28
April -122
May -307
June -480
July -255
August -135
September -202
October -80
November -22
December -5

Twenty notices of violation were issued in 2015.

8.4 Consumption Reduction Methods

Consumption reduction methods based on the various stages are:

- **Level 1 – Drought Watch**: 10 percent reduction.
- **Level 2 – Drought Alert**: 20 percent reduction.
- **Level 3 – Drought Critical**: 40 percent reduction.
- **Level 4 – Drought Emergency:** greater than 40 percent reduction.

Categories of Consumption Reduction Methods

The section below includes consumption reduction methods implemented by the VWD.

- Expand Public Information Campaign – enlarge media campaign; create bill envelope snipes and inserts with conservation information; articles submitted to local newspapers; conduct water efficiency workshops for different customer sectors.
- Offer Water Use Surveys – actively reach out to high water users to offer water use surveys.
- Provide Rebates or Giveaways of Plumbing Fixtures and Devices – as offered by the Metropolitan Water District of Southern California; issue free rainbarrels.
- Provide Rebates for Landscape Irrigation Efficiency – as offered by the Metropolitan Water District of Southern California.
- Increase Water Waste Patrols – implement a Water Waste Patrols.
- Other – Implement High User Response and Letters (HURL) Program targeting highest water users.

Table 8-3: Stages of WSCP - Consumption Reduction Methods

Stage	Consumption Reduction Methods by Water Supplier	Additional Explanation or Reference
1	*Expand Public Information Campaign*	*As part of ordinances, but also to meet Governor's mandate.*
1	*Offer Water Use Surveys*	*Available at all times.*
1	*Provide Rebates on Plumbing Fixtures and Devices*	*Available at all times.*
1	*Provide Rebates for Landscape Irrigation Efficiency*	*Available at all times.*
2	*Increase Water Waste Patrols*	*Implemented after Governor's mandate.*
3	*Moratorium or Net Zero Demand Increase on New Connections*	*Would be invoked at Level 3.*
2	*Implement or Modify Drought Rate Structure or Surcharge*	*Is available if District fails to meet reduction mandates.*
2	*Other*	*HURL Program.*

8.5 Determining Water Shortage Reductions

Currently the VWD is using the SWRCB emergency regulation method to measure and determine actual water savings made from implementing the WSCP. The SWRCB uses 2013 water production data and requires water agencies to report monthly water production as compared to 2013. The VWD has maintained a 25 percent reduction as compared to 2013.

8.6 Revenue and Expenditure Impacts

Implementation of WSCP will reduce revenues from water sales, but not from fixed meter charges. VWD sets fixed meter charges, called Ready-To-Serve charges (RTS), to recover approximately 80 percent of VWD's fixed costs (repairs, replacement, maintenance, meter reading, billing, regulatory, safety, general and administrative, etc.). Reduced sales do not impact revenues from RTS charges. Fiscal impact from implementing WSCP is limited to water sales revenue which is mostly offset from decreased water costs since historically, VWD has imported 100 percent of its water supply.

Drought Rate Structures and Surcharges

VWD's rate structure includes higher per unit (1 unit = 748 gallons) charges in tiers of higher use to encourage conservation. VWD's drought rate structure may be implemented when a Level 2 Drought alert is declared. The drought rate structure imposes additional tiers and higher rates in the higher tiers, escalating in correlation with the percentage of cutback from mandated supply reduction (i.e., the higher the supply reduction, the higher the rate.)

Use of Financial Reserves

VWD budgets water sales assuming compliance with any drought or supply restrictions whether encouraged through voluntary conservation or mandate. Funding for Replacement Reserves are planned for ceiling of those reserves and may be used for revenue short falls from conservation beyond the levels budgeted. Reserves that increase beyond the ceiling from favorable budget variances are transferred to rate stabilization funds.

Other Measures

During the budget and/or rate setting process, a revenue requirement is determined assuming conservation targets are achieved and reserve levels are at their ceilings. Rates are recommended to achieve that revenue requirement, but not before cost cutting measures and capital deferrals are considered to reduce the revenue requirement.

8.7 Resolution or Ordinance

The District's two ordinances 162 and 195 are included as Appendix E.

8.8 Catastrophic Supply Interruption

A catastrophic water shortage occurs when a disaster, such as earthquake, results in insufficient available water to meet the region's needs or eliminates access to imported water supplies. For increased reliability, VWD subscribes to SDCWA's Integrated Contingency Plan (ICP) and Emergency Storage Program (ESP). Both were developed to protect public health and safety and to potentially limit economic damage that could occur from a severe shortage of water supplies.

Integrated Contingency Plan

SDCWA's ICP provides information necessary to respond to an emergency that causes severe damage to SDCWA's water distribution system or impedes SDCWA's ability to provide reliable service to its member agencies. The ICP describes the situations and incidents that will trigger the activation of SDCWA's ICP and Emergency Operations Center. It also provides direction and strategies for responding to a crisis. SDCWA's ICP includes:

- Authorities, policies, and procedures associated with emergency response activities
- Emergency Operations Center activities, including activation and deactivation guidelines

- Multi-agency and multi-jurisdictional coordination, particularly between SDCWA, its member agencies, and MWD in accordance with Standardized Emergency Management System and National Incident Management System guidelines
- Incident Command System management and organization and emergency staffing required to assist in mitigating any significant emergency or disaster
- Mutual Aid Agreement and covenants that outline the terms and conditions under which mutual aid assistance will be provided
- Hazard specific action plans and Incident Command System position checklists

In addition, the plan uses a step-by-step approach to emergency response planning by providing tools such as resource and information lists, personnel rosters, pertinent policies and procedures, and reference materials.

Separate from the ICP, the District has a direct connection to the Claude "Bud" Lewis Desalination Plant in Carlsbad.

8.9 Minimum Supply Next Three Years

CWC §10632 requires urban water suppliers to estimate the minimum water supply available during each of the next three years, based on the driest three-year historic sequence. To determine the minimum supplies potentially available to VWD, the same assumptions contained in the multiple dry-year analysis in Section 7.2 were used. VWD is currently responsible for 2.9 percent of the SDCWA's total potable water demands. Table 8-4 contains the minimum estimated supply over the next three years, in units of million gallons, assuming the same proportion of SDCWA's total demands.

Table 8-4: Minimum Supply Next Three Years

	2017	2018	2019
Available Water Supply	4,917	5,202	5,464

Please note that the above minimum supplies are for years 2017, 2018 and 2019, respectively. This methodology is consistent with that used in the UWMP of VWD's wholesaler, the SDCWA, given that urban water suppliers are already well into 2016 while preparing their UWMPs. The SDCWA discussed using this approach with DWR, and consistent with what the CWC actually requires, DWR has agreed that the years 2017-2019 may be utilized. DWR asked that urban water suppliers simply include a note stating the years utilized.

It should be noted that based on current supply and storage conditions statewide, VWD is not currently forecasting this supply scenario. However, if sufficient supplies from the SDCWA are not available to meet demand projections, then VWD shall increase the drought response stage described in Section 8.1 to prohibit water waste and reduce demands to meet available supplies.

Section 9: Demand Management Measures

This section briefly overviews the Vallecitos Water District (VWD) conservation programs and their history. The section then discusses the urban water conservation Best Management Practices (BMPs) as proposed by the California Urban Water Conservation Council (CUWCC) and VWD's compliance strategies for these BMPs.

9.1 Demand Management Measures for Retail Agencies

During the past few decades, conservation has become a vital part of VWD's overall reliability strategy. This is similar to the regional strategy of its water wholesaler, the San Diego County Water Authority (SDCWA), which has projected that conservation will account for 11 percent of the San Diego region's overall water diversification program for 2011 and increase to 17 percent by 2020. To help achieve these water savings, VWD, as well as the other 23 member agencies of the SDCWA and the Metropolitan Water District of Southern California (MWD), collaborate on programs that benefit the entire region. The combined effort has yielded increased conservation and water knowledge through education, messaging and financial incentives for water-efficient devices and WaterSmart landscape.

VWD customers have demonstrated a strong propensity to respond to calls for water conservation whether as part of a long term commitment to water efficiency during times of adequate supply availability or when extraordinary conservation measures are required, as experienced during the current 5-year drought and just prior during 2008 through 2011. This is evidenced by the steady reduction in water use and per-capita consumption since 2007 despite population, employment and housing growth within the District. VWD customer response is also highlighted during the more challenging periods when extraordinary conservation is required to respond to water supply shortages during drought. During this current drought emergency, and in compliance with the SWRCB Emergency Regulation, VWD residential water use dropped by 25.2 percent in comparison to the non-drought year of 2013.

History of VWD Water Conservation

VWD started a water conservation program in 1975, and with the support of the Board of Directors, the program expanded significantly during the drought of 1976-77. At the program's inception, efforts steered toward a long-term public information program and active cooperation with regional water conservation programs of the SDCWA. Though the drought ended, many of the programs that emerged during that time remained focused on switching from an "emergency situation" agenda to a long-term public information effort aimed at outreach in wise water management.

Through the addition of a Water Conservation Supervisor and Resources Assistant, the framework of a long-term conservation program continued to serve as a backdrop for the next major drought of 1987-1992. With the additional staff and a clear understanding of the importance of conservation, VWD aggressively revamped the conservation program and developed a variety of innovative and effective approaches to demand management. VWD reaffirmed its commitment to conservation and became one of the original signatories to the "Memorandum of Understanding Regarding Urban Water Conservation" (MOU) in California on September 16, 1991. The CUWCC, of which VWD is a long-time member, emerged from the MOU, as well as urban water conservation practices known as the BMPs, which are aimed at reducing California's long-term urban water demands.

To assist in achieving goals set by the CUWCC, the structure of VWD's conservation department was later changed to include a Public Information / Conservation Supervisor and 2.75 Public Information Representatives (with the part time position dedicated to social media).

As conservation and public information go hand in hand, all members of the conservation department now have the responsibility for water conservation programs and related outreach. This proved to be extremely valuable in 2015 during State mandated drought restrictions. On May 5, 2015, the State adopted new regulations and mandated a 24 percent reduction in potable water use for VWD from 2013 demands. On March 9, 2016, the State Water Resources Control Board changed VWD's water conservation target to 16 percent due to VWD's direct connection to the seawater desalination plant in Carlsbad and the addition of seawater desalination to the SDCWA's regional supply, which VWD also receives. Since the mandate, VWD has achieved a 25.6 percent water conservation reduction as of May 1, 2016.

Water waste prevention ordinances

For compliance with this provision, VWD has adopted Ordinances No. 162 and 195, which are included in Appendix E. Ordinance 162, which is an effort to provide consistency of messaging to the public, is patterned after the conservation actions of its water wholesaler (SDCWA). This ordinance establishes regulations to be implemented during times of declared water shortages or emergencies to conserve water, and its consistency with the regional model has proven beneficial to reducing confusion and misunderstanding by the public over how consumers need to respond to drought conditions. This ordinance establishes four levels of drought response with corresponding actions to be implemented in times of shortage or emergency, with increasing restriction on water use in response to worsening drought or emergency conditions, and decreasing available supplies.

- **Level 1 – Drought Watch**: With this alert, VWD will increase public outreach and take action to encourage voluntary conservation practices.
- **Level 2 – Drought Alert**: With this alert, VWD will implement mandatory conservation practices to reduce water use by up to 20 percent. These practices include limiting landscape irrigation and repairing leaks within 72 hours of notification.
- **Level 3 – Drought Critical**: With this alert, VWD will implement mandatory conservation practices to reduce water use by up to 40 percent. Additional conservation practices include the prohibition of filling pools or fountains and washing vehicles and require repair of leaks within 48 hours of notification. With minor exceptions, no new potable water services will be allowed during a Level 3 Drought alert.
- **Level 4 – Drought Emergency**: With this alert, VWD will implement mandatory conservation practices to reduce water use above 40 percent in order for VWD to have adequate supplies to meet anticipated demands. Additional conservation practices include prohibited landscape irrigation, excluding commercial growers or nurseries, and the repair of leaks within 24 hours of notification.

Table 8-1 provides a summary of the conservation practices required at the four stages of drought conditions.

Ordinance 195 was implemented in response to Governor Brown's issued Executive Order No. B-29-15, directing the State Water Resources Control Board to develop and impose restrictions on urban water users to achieve a statewide 25% reduction in potable urban water use.

Metering

Some of the requirements associated with meeting this BMP are including meters for all new service connections; establishing a program to retrofit existing unmetered connections; reading meters and billing customers by volume of use; billing intervals of no greater than bi-monthly; performing at least five meter readings for every 12-month period; and preparing a written plan that includes a census of all meters by size, type, year installed, and customers served. Also included is the requirement to conduct a feasibility study on retrofitting mixed use meters with separate irrigation meters. That study was completed in May of 2015.

Metering of all water use and billing by volume has long been the standard practice at VWD. As directed by the BMP, all new and existing water service connections are metered. For large parcels and commercial developments, separate, dedicated irrigation meters are placed where needed. Customers are billed based on monthly reads and according to "Tier Ranges" adopted by VWD on July 1, 2003. The "Tier Ranges" are divided into three step pricing tiers with separate use requirements for residential, irrigation, agriculture, and commercial / industrial, in an effort to promote conservation by charging a higher rate for each incremental use of water.

The District currently uses Automated Meter Reading (AMR). A sending device (MXU) in each meter box transmits a read to a Vehicle Gateway Base-station (VGB) in the truck of a meter reader. Routes are uploaded to the VGB, read by driving through a neighborhood, and then downloaded into the District's billing system.

The District currently specifies Omni and iPerl meters for new development and replacement of old meters. These meters store thirty days of ten-minute interval reads. If a customer is concerned about a high usage read or suspects a leak, meter department staff can download the thirty days of water usage with a portable device known as a UniPro to discern usage behavior patterns, distinguish irrigation from domestic use, and collaborate evidence of a leak. There are currently 365 iPerl meters and 150 Omni meters installed in the District.

The next evolution in meter reading technology is Advanced Metering Infrastructure (AMI). The District currently specifies Sensus meters (iPerls and Omnis) for new construction and employs Sensus AMR technology. Implementation of Sensus AMI would cost approximately $5.3 million.

Conservation pricing

This BMP promotes water conserving retail water rate structures. When creating a rate case, professional judgments are made to determine whether costs are accounted to a variable or fixed cost center by the staff of the agency. The final water rate case is an accumulation of all the decisions and judgments made by staff and supplemented by the financial projections leading an agency to establish its final water rate recommendation. The BMP is not intended to supplant this process, but rather to reinforce the need for water agencies to establish a strong nexus between volume-related system costs and volumetric commodity rates.

VWD customers are billed based on monthly reads and according to "Tier Ranges." The "Tier Ranges" are divided into four step pricing tiers with separate use requirements for residential, irrigation, agriculture, and commercial/industrial. This is an effort to meet this BMP and promote conservation and wise water use by charging a higher rate for each incremental use of water. Commodity charges are currently approximately 66 percent of the revenue generated by water rates. Drought conditions have exacerbated the percentage. A rate schedule is included as Appendix I.

Public education and outreach

The primary basis for this BMP is to use public information programs as an effective tool to inform customers about the need for water conservation and ways they can conserve, and to influence customer behavior to conserve. The program should include, when possible, but should not be limited to, providing speakers to employees, creating social marketing elements that are designed to change attitudes to influence behavior; using paid and public service advertising; using bill inserts; providing information on customers' bills showing use for the last billing period compared to the same period the year before; providing public information to promote water conservation measures and shaping water conservation messages; training stakeholders outside the utility staff in water conservation priorities and techniques and coordinating with other government agencies, industry groups, public interest groups and the media.

Through a dedicated staff, VWD meets this BMP requirement through a variety of programs and strategically targeted communication. This includes internal and external, in-house produced periodicals such as a quarterly "Splash!" newsletter mailed to all customers, use of VWD's website located at www.vwd.org, a Speaker's Bureau covering a range of topics, and an employee newsletter. Also critical to outreach success are visibility at community events, press releases, brochures, paid newspaper advertisements, bill inserts and bill messages, free water-wise workshops, promotional events, displays, open house events, the Lending Library, classroom presentations,

field trips for area schools, and facility tours. Some specific recent examples include banners at local schools, paid newspaper advertisements and bill messages to remind people to conserve during the drought, school presentations covering water history and demonstrating water conservation techniques, as well as conservation advice available online at VWD's website. VWD has also started using other forms of communications such as automated phone calls, movie theater ads and social networking sites, such as Facebook. The recently installed sustainable demonstration garden is another avenue that opens communication dialogue with customers to discuss ways to reduce outdoor water use.

VWD's outreach is directed to reach the diverse social, cultural, and economic elements of the population within the service area. This is accomplished by mailing the quarterly newsletter to all residents within our service area, instead of limiting distribution to actual water customers. Brochures, envelope snipes and bill inserts are periodically mailed to VWD customers informing them of current water conditions. To assist our Spanish speaking customers, many of VWD's outreach materials are printed in Spanish and VWD's website contains a link which can convert the website text into Spanish. (See Appendix C for examples of outreach materials).

The school outreach portion of this BMP has been established for water agencies to reach younger water users at an early age and enforce the need to engage in water conservation as a life-long behavior. Some targets associated with achieving success include implementing a school education program to promote water conservation and water conservation-related benefits through instructional assistance, educational materials, and classroom presentations that identify urban, agricultural, and environmental issues and conditions in the local watershed. Educational materials shall meet the state education framework requirements and grade-appropriate materials shall be distributed. Also, when mutually beneficial, the water wholesale agency may operate all or part of the education program. For such cases it may be beneficial for the retail agency to assume responsibility for CUWCC reporting of this BMP; under this arrangement, a water wholesale agency may aggregate all or portions of the reporting and coverage requirements of the retail agencies joining into the mutual consent.

The VWD Education Program is designed to meet BMP requirements and establish standards adopted by the California State Board of Education in October, 1998. Implemented in conjunction with the SDCWA, the presentations are designed to increase water knowledge among VWD's most impressionable users. The VWD Education Program includes:

- **Kindergarten** – In-class presentation to bring the science of the water cycle together with an effort to personalize the student's scientific knowledge of the role of water.

- **First Grade** – In-class presentation to help students comprehend the role of water in essential industries and introduce water conservation.

- **Second Grade** – Through a partnership with the City of San Marcos, VWD covers the cost to transport students to Jack's Pond Park and Nature Center where they are exposed to nature by having hands-on time with native plant exhibits. They also listen to a presentation on the importance of water in the ecosystem and the development of human settlements.

- **First and Second Grade -** Vallecitos participates in the "Hands on History" program at Heritage Park by giving visiting elementary students a hands-on demonstration or presentation about how residents lived, obtained water and disposed of wastewater over 100 years ago. At the end of the program, students gain a new appreciation for modern conveniences like running water and flushing toilets. Vallecitos pays for the student's school bus transportation to the park, giving over 300 first and second grade students an opportunity to visit each school year.

- **Fourth Grade** – In-class presentation and "water awareness calendar" poster contest to deepen the student's understanding of the water cycle.

- **Fifth Grade** – Field trips for Fifth Grade classes where students learn about water conservation, water treatment, the water conservation garden and wastewater collections.

- **Kindergarten through Fifth Grade** – VWD covers the cost for the San Diego County Office of Education's "Green Machine" to be brought directly to the classroom. This hands-on agricultural program teaches the students about how they get their food and explores the journey from "seed to table" by explaining soil science, integrated pest management and the water cycle.

- **Fourth through Sixth Grade** – VWD covers the cost for the "Splash Science Mobile Lab" to make visits to area schools. This self-contained mobile laboratory is offered through the San Diego County Office of Education. It provides a hands-on experience where students learn about water by using cooperative learning skills, microscopes with live specimens, chemistry experiments, and state-of-the-art computers.

VWD has also partnered with the City of San Marcos to help create a conservation barn at Jack's Pond Park to educate fourth through sixth grade students on various environmental topics. Inside the barn are seven rooms that each has a specific educational theme, such as wildlife and habitats; native plants, and the water cycle. There are also many hands-on displays, such as microscopes for examining life in the pond and an interactive wastewater treatment plant model.

- **Seventh through Twelfth Grade** – VWD outreaches to older students in a variety of ways, including:
    - In-class presentations on requested topics for middle schools and high schools.
    - VWD covers the cost to transport students to VWD's Meadowlark Water Reclamation Facility (MRF) for facility tours to learn about wastewater treatment and recycling.
    - Throughout the year, VWD partners with local schools on a variety of special projects. As an example, in 2015 VWD met with Alvin Dunn Elementary School officials regarding the development of a demonstration garden.
- **Private Schools** – Smaller private schools and home schools within VWD's service area are each invited to a special two-day Splash Science Mobile Lab event at Jack's Pond Park. The City of San Marcos' Jack's Pond Park and Nature Center is opened in conjunction with the Splash Science Mobile Lab event, and the Nature Center's Director offers nature walks discussing storm water issues, local flora and fauna, and water allocation topics.

- **Colleges** – Although not a requirement of this BMP, VWD also works with local colleges to help educate students about the importance of water conservation. VWD participates in an annual environmental fair at Palomar College, and in 2010, VWD partnered with the college to create the sustainable demonstration garden which now graces the front of VWD's administration building. Environmental architecture and design students designed the garden, which includes native plants, and a 2,500-gallon-capacity rainwater collection system that supplies water to solar-powered ornamental water features. One of the water features includes a casted bronze hand depicting the value of water, which was created by Palomar College's sculpture and foundry departments. VWD also partnered with California State University San Marcos on two significant projects: a three part Community Forum Series – "Fresh Perspectives on California's

Water Future" as well as a Certificate in Water Resources Management and Leadership.

Programs to assess and manage distribution system real loss

The goals of modern water loss control methods include both an increase in water use efficiency in the utility operations and proper economic valuation of water losses to support water loss control activities. Agencies are expected to use the AWWA Free Water Audit Software ("AWWA Software") to complete their standard water audit and water balance. Instrumental to VWD complying with this BMP is a host of programs targeted at averting unbilled water loss before they happen. These programs include:

- **Water Audits**: Monthly water audits that compare total water sales with water acquisitions to determine the amount of unaccounted water. Regular audits allow VWD to develop new programs to enhance water loss reduction as needed.
- **Leak Detection**: VWD's distribution system is constantly monitored for leaks by a centralized control system, electric leak detection devices and visual inspections.
- **Water System Improvements**: A state-of-the-art telemetry room uses a computerized Supervisory Control and Data Acquisition (SCADA) system to monitor water flow more efficiently. Routine and preventative maintenance is performed on the entire delivery system.
- **Meter Maintenance and Replacement Program**: Meters within VWD are replaced every 15 years to prevent malfunction and leakage.
- **Prosecution for Water Theft**: VWD personnel continually monitor for water theft and prosecute as necessary.
- **Water Loss Billing**: Whenever possible, the parties responsible for water loss (for example, damages fire hydrants, dig-ins, etc.) are billed for the cost of required repairs and for all water lost.

A copy of the District's AWWA Water Audit is included as Appendix F.

Water conservation program coordination and staffing support

The Water Conservation Department is managed by Chris Robbins, Water Conservation/Public Information Supervisor who has over 16 years in the water conservation field. Staffing for the Department is 3.75 fte's with a budget of well over half a million dollars. Mr. Robbins can be reached at (760) 744-0460 ext 314 or at crobbins@vwd.org.

Other demand management measures

In an effort to address the need for water conservation in the face of the current drought and the state-mandated water-use restrictions, VWD developed an outreach plan that targets its high usage customers. Rather than expending efforts on achieving usage reductions across all of its customers, the VWD focused the High User Ranking and Letters (HURL) Program on those customers who have the highest usage patterns.

HURL Objectives

- Implement an outreach campaign for high use customers with greatest conservation potential.
- Focus special efforts on customers with high potential for water waste.
- Evaluate conservation results.

HURL Data Analysis

After developing objectives, VWD needed to perform an analysis of its highest water using customers. This was accomplished using the following parameters:

- Tier 4 (highest level within VWD) customers queried by Finance Analyst.
- March 2014 to February 2015 usage evaluated in relation to the Tier 4 limit.
- Customers ranked by highest usage in relation to meter size with a higher weighting for recent months.
- Send initial letters by customer category (starting with Single-Family Residential).
- Follow-up phone calls.

Letters

The HURL letter was designed to solicit the homeowners' assistance in achieving the 24 percent reduction. It made suggestions on ways to save water while reinforcing Governor Brown's mandate. To date, over 420 HURL letters have been issued to VWD customers.

Phone Calls

A Phone Bank effort was made during the evening hours (in order to reach more customers) the last week of April 2015. A phone script was developed to ensure that all staff followed a similar dialogue when engaging customers. Subsequently, staff have made HURL calls to customers based on updated data extracts on a case-by-case basis.

Results

VWD customers achieved 33.8 percent conservation in June 2015 and 37.8 percent in July 2015, significantly exceeding VWD's mandated target of 24 percent.

9.2 Implementation over the Past Five Years

Demand Management Measures have been implemented per Section 9.1 above. Additional DMMs not covered above include Residential, Commercial and Landscape BMPs as follows:

BMP Category 3: Residential

Residential water users throughout California depend on a reliable and safe supply of water for their homes. This BMP is designed to establish the best and most proven water conservation methods and measures that residents, working in conjunction with water agencies, can implement. The practices will encourage homeowners, multi-family property owners, and tenants to increase water use efficiency and reliability. As required by the BMP, retail water agencies will implement water-use efficiency through residential assistance programs such as landscape surveys, and water-efficient appliance and fixture rebates and incentives*.

In meeting this BMP, VWD participates in a free water audit program to encourage water savings. As fifty to seventy percent of the water used in San Diego County is used on landscaping, customers can see significant savings by having an audit performed on their property. Audits assist customers by offering instrumental ways to

save water in their own homes by reviewing landscaping irrigation systems as well as inspecting indoor and outdoor plumbing fixtures for leaks. The auditor may suggest outdoor irrigation adjustments according to season and soil moisture composition, as well as recommend proper lawn maintenance and tips on low-water-use landscaping. Once complete, an educational packet with information about other water conservation programs is also offered. Also available for distribution are free faucet aerators, low-flow showerheads and booklets outlining effective irrigation practices, drought-tolerant plant selections, and simple tips to reduce water waste indoors and outdoors.

To further encourage customers to reduce outdoor water use, VWD participates in a regional landscape contest to award customers whose yards best exhibit the beauty of low-water gardening. Contest winners receive a gift certificate to a local nursery and are recognized at an award ceremony and/or at a VWD Board meeting.

*Rebates and incentives are dependent upon funding by VWD's wholesalers (SDCWA and MWD).

BMP Category 4: Commercial, Industrial and Institutional (CII)

Commercial, industrial, and institutional (CII) usage make up a large percentage of total water demand for California. CII water use varies dramatically between business sectors within a water agency's territory. The goal is to implement comprehensive yet flexible BMPs, allowing each water agency to tailor the implementation of each practice to fit local needs and opportunities. The end result is a practice that is successful and will produce the greatest amount of cost-effective water savings.

Through collaboration with SDCWA's CII Program, VWD meets BMP Category 4 requirements through a rebate program* that offers CII customers financial incentives to migrate to water-efficient equipment. Participants also benefit long-term, experiencing savings in water, wastewater and energy costs. VWD's CII offerings have included partial reimbursement for pre-rinse spray valves, ultra-low flush toilets, urinals (waterless models included), water brooms, single-load high-efficiency washers, cooling tower conductivity controllers, multi-load high-efficiency washers, and weather-based irrigation controllers. The CII program is regularly promoted through VWD's website, mailings, bill inserts, letters, display ads, articles and newsletters.

BMP Category 5: Landscape

Irrigation accounts for a large portion of urban water use in California. This water use varies dramatically depending on water pricing and availability, plant choice, geographic locations, seasonal conditions, and the level of commitment to sound water efficiency practices. The goal of this BMP is that irrigators, with assistance from the water agency, will achieve a higher level of water use efficiency consistent with the actual irrigation

needs of the plant materials. Reaching this goal would reduce overall demands for water, reduce demands during the peak summer months, and still result in a healthy and vibrant landscape for California.

VWD meets this BMP with its own in-house audit program and a partnership with the Mission Resource Conservation District to provide audits at no charge to VWD customers. For small residential or commercial properties, VWD has the flexibility to use in-house certified landscape irrigation auditors who can conduct the landscape audits or contract staff. On larger properties, such as homeowners associations or agricultural users, Mission Resources Conservation District is hired to conduct a more extensive audit.

Regardless of the size of the property, all audits include a face-to-face meeting where a walkthrough is performed to identify type of plants, irrigation system design, equipment problems and scheduling. This is completed with the goal of providing cost-effective opportunities at the property – from simple repairs to new ways to schedule irrigation. On large property audits, the audit concludes with a detailed report of graphs and charts showing a sample of the landscaped area, plant material identification, hyrdozoning, weather data and water savings potential.

*Rebates are dependent upon funding by VWD's wholesalers (SDCWA and MWD).

9.3 Planned Implementation to Achieve Water use Targets

CWC §10608.16 mandates that VWD achieve a 20 percent reduction from baseline usage by 2020 and an incremental reduction of 10 percent by 2015. VWD has calculated the 2015 target (90 percent of baseline per capita water usage) at 179.3 gpcd, and the 2020 target (80 percent of baseline per capita water usage) at 159.4 gpcd. Table 5-1 summarizes the baseline periods used by VWD and the 2015 and 2020 usage targets that were calculated in Section 5.1.

Table 5-1: Baselines and Targets Summary

Baseline Period	Start Year	End Year	Average Baseline GPCD*	2015 Interim Target *	Confirmed 2020 Target*
10-15 year	*1999*	*2008*	*199*	*179*	*159*
5 Year	*2004*	*2008*	*198*		

*All values are in Gallons per Capita per Day (GPCD)

The actual capita daily water use for the fiscal year ending in 2015 is 117 gpcd, which is already below the 2020 target, as shown in Table 5-2. This exceptionally low per-capita water use for 2015 is due in part to the extraordinary conservation measures undertaken by VWD to comply with the State Water Resources Control Board's urban water conservation regulation. The current water conservation goals have also effectively provided the reduction necessary to comply with SB7. Demand management measures delineated in Section 9 present VWD's plan to maintain conservation to ensure that the demands do not increase again if drought alert levels are decreased and water awareness wanes.

9.4 Members of the California Urban Water Conservation Council

VWD is a member of the CUWCC. The latest coverage reports for the District are included as Appendix G.

Section 10: Plan Adoption, Submittal, and Implementation

In accordance with CWC §10621 and 10642, VWD has notified all cities and county that have land use jurisdiction within its service area that it is reviewing and considering amendments to its UWMP. VWD has served 60-day notice to these agencies on March 24, 2016 that its UWMP is under review and may be revised in concurrence with updated land use information, demand projections and new legislations. This 60-day notice also stated that a public hearing woud be held on June 1, 2016 at 5:00 p.m. at VWD's administrative headquarters to receive comments, questions and suggestions regarding VWD's 2015 UWMP, and to address water supply reliability and management by VWD for at least the next 20 years. Copies of the 60-day notices are included in Appendix A.

Table 10-1: Notification to Cities and Counties

City Name	60 Day Notice	Notice of Public Hearing
City of Carlsbad	☑	☑
City of Escondido	☑	☑
City of Vista	☑	☑
City of San Marcos	☑	☑
County Name	**60 Day Notice**	**Notice of Public Hearing**
San Diego County	☑	☑

VWD advertised the notice of public hearing in the local newspaper (San Diego Union Tribune) once per week for two consecutive weeks prior to the public hearing. This notice included the date, time and location of the public hearing noted above. A copy of this public hearing notice is included in Appendix A.

VWD held the public hearing at its regularly-scheduled Board of Directors meeting on June 1, 2016 in which the following was accomplished:

- Community input was taken regarding the 2015 UWMP.
- The economic impacts of the 2015 UWMP were considered.
- Information was provided on VWD's baseline values, water use targets, and implementation plan required per Senate Bill X_{7-7}.
- The VWD Board of Directors adopted Method 1 (80 percent of the urban retail water supplier's baseline per capita daily water use) for determining its urban water use target per Senate Bill X_{7-7}.

A copy of the approved VWD Board Meeting minutes for the public hearing is included in Appendix A.

VWD's Board of Directors adopted its 2015 UWMP at its regularly-scheduled meeting on June 15, 2016. Copies of the approved VWD Board Meeting minutes and the approved and signed Resolution are included in Appendix A.

VWD's 2015 UWMP will be provided to DWR per CWC §10621 both in hardcopy and electronically by July 1, 2016. In addition, VWD's 2015 UWMP will be provided to the California State Library and the agencies listed in Table 10-1 that have land use jurisdiction within its service area per CWC §10644 no later than 30 days following its adoption. Copies of these letters of transmittal are included in Appendix B.

No later than 30 days after filing a copy of the 2015 UWMP with DWR, VWD will make a hardcopy of its 2015 UWMP available for public review at the Engineering Desk of its administrative headquarters during normal business hours. The final 2015 UWMP will also be made available on VWD's website at www.vwd.org.

Appendix A

60-day notices to all affected land use agencies that the Vallecitos Water District has jurisdiction within that the Vallecitos Water District intends to review and update its 2010 Urban Water Management Plan pursuant to California Water Code Section 10610-10610.4, and is scheduling a public hearing for 5 p.m. on June 1, 2016.

Proof of Advertisement from the San Diego Union Tribune for the Vallecitos Water District 2015 Urban Water Management Plan update public hearing; advertised on May 8, 2016 and May 15, 2016.

Minutes from the June 1, 2016 Vallecitos Water District regular meeting of the Board of Directors showing that a public hearing was held to review the method for determining an urban water use target, and to allow community input and consideration of economic impacts regarding the target implementation plan.

Resolution of the Board of Directors of the Vallecitos Water District adopting the 2015 Urban Water Management Plan as described in the California Water Code Section 10640 et seq.

Appendix B

Letters of transmittal to the California Department of Water Resources, the California State Library, and all affected land use agencies that the Vallecitos Water District has jurisdiction within, providing them with the Vallecitos Water District 2015 Urban Water Management Plan update within 30 days of its adoption.

Printout from the Vallecitos Water District website at www.vwd.org showing a link to the Vallecitos Water District 2015 Urban Water Management Plan update that can be accessed by members of the general public for review within 30 days of submission of this plan to the California Department of Water Resources.

Appendix C

Article in December 2014 edition of San Diego Union Tribune. Water District launches student video contest

Article in April 2015 edition of CA Special District. Scouting new methods for community outreach

Article in June 2015 edition of Share+San Marcos, by Karen Friend Smith. When in Drought

Article in July 2015 edition of Quail Call. Drought Restriction Information

Fact Sheet: Frequently asked Questions: Outdoor Water Use

Fact Sheet: Vallecitos Water District Goes Green in Operations

Fact Sheet: Vallecitos Water District Sustainable Demonstration Garden

Fact Sheet: Vallecitos Water District Meadowlark Water Reclamation Facility

Fact Sheet: Vallecitos Water District Twin Oaks Reservoirs

Flyer: WaterSmart Landscape Design Workshop

Fall 2015 edition of the Vallecitos Water District's "Splash!" publication for its ratepayers and general public

May 2015 edition of the Vallecitos Water District's "Between the Pipes" publication for the Vallecitos Water District employees

Appendix D

E-mail correspondence between the Vallecitos Water District and the San Diego County Water Authority providing water use projections for the Vallecitos Water District through 2040.

E-mail correspondence between the Vallecitos Water District and the San Diego County Water Authority clarifying technical details on potable water supplies.

Appendix E

Ordinance No. 162 – An Ordinance of the Board of Directors of the Vallecitos Water District Repealing Ordinance No. 159 and Adopting a Drought Response Conservation Program. Passed, approved and adopted on May 6th, 2009.

Ordinance No. 195 – An Ordinance of the Board of Directors of the Vallecitos Water District Adopting Emergency Drought Conservation Measures. Passed, approved and adopted on May 20th, 2015.

Appendix F

Printout of the Vallecitos Water District's calendar year 2015 water loss audit using the American Water Works Association Free Water Audit Software, version 5.0.

Appendix G

Vallecitos Water District 2013 and 2014 California Urban Water Conservation Council BMP Coverage Reports for 2013 and 2014.

Appendix H

Cooperative Agreement to Establish and Carry Out a Regional Alliance in Accordance with Part 2.55 of the California Water Code.

- Executed by the Olivenhain Municipal Water District on May 25, 2011
- Executed by the Vallecitos Water District on June 15, 2011
- Executed by the Rincon del Diablo Municipal Water District on June 14, 2011
- Executed by the San Dieguito Water District on May 25, 2011

Appendix I

Vallecitos Water District current rate schedule.

Appendix J

Urban Water Management Plan checklist; completed by VWD to identify the sections in the VWD 2015 Urban Water Management Plan that address the checklist items. This checklist is taken from the California Department of Water Resources' 2015 Urban Water Management Plans website:

http://www.water.ca.gov/urbanwatermanagement/uwmp2015.cfm

VALLECITOS WATER DISTRICT
Water and Wastewater Specialists since 1955

201 Vallecitos de Oro • San Marcos, California • 92069-1453 Telephone **(760) 744-0460**

March 24, 2016

County of San Diego
Department of Planning and Development Services
5510 Overland Avenue
San Diego, CA 92123

RE: Vallecitos Water District 2015 Urban Water Management Plan Update

This letter is to notify your agency that the Vallecitos Water District (VWD) is reviewing and considering amendments to its Urban Water Management Plan (UWMP). This plan is updated every 5 years as required pursuant to California State Water Code Section 10610-10610.4, and addresses water supply reliability and management by VWD for at least the next twenty (20) years.

VWD will distribute a copy of its draft 2015 UWMP update to the cities and county within its service area for public review at least two weeks prior to holding a tentatively scheduled public hearing on June 1, 2016 at the VWD administrative headquarters at 5:00 p.m. VWD must submit the adopted UWMP to the California Department of Water Resources by July 1, 2016.

VWD's draft 2015 UWMP update is currently under development and public input is welcomed during the preparation process and at the public hearing. Once the draft 2015 UWMP update has been released, it will be made available online at www.vwd.org. For questions or other inquiries, please contact me at (760) 744-0460 or rscholl@vwd.org.

Sincerely,

Robert Scholl

Robert Scholl, P.E.
Senior Engineer – Development Services
VALLECITOS WATER DISTRICT

VALLECITOS WATER DISTRICT
Water and Wastewater Specialists since 1955

201 Vallecitos de Oro • San Marcos, California • 92069-1453 Telephone **(760) 744-0460**

March 24, 2016

Jack Griffin, City Manager
City of San Marcos
1 Civic Center Drive
San Marcos, CA 92069

RE: Vallecitos Water District 2015 Urban Water Management Plan Update

Dear Mr. Griffin:

This letter is to notify your agency that the Vallecitos Water District (VWD) is reviewing and considering amendments to its Urban Water Management Plan (UWMP). This plan is updated every 5 years as required pursuant to California State Water Code Section 10610-10610.4, and addresses water supply reliability and management by VWD for at least the next twenty (20) years.

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March 24, 2016

Graham Mitchell, City Manager
City of Escondido
201 North Broadway
Escondido, CA 92025

RE: Vallecitos Water District 2015 Urban Water Management Plan Update

Dear Mr. Mitchell:

This letter is to notify your agency that the Vallecitos Water District (VWD) is reviewing and considering amendments to its Urban Water Management Plan (UWMP). This plan is updated every 5 years as required pursuant to California State Water Code Section 10610-10610.4, and addresses water supply reliability and management by VWD for at least the next twenty (20) years.

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March 24, 2016

Patrick Johnson, City Manager
City of Vista
200 Civic Center Drive
Vista, CA 92084

RE: Vallecitos Water District 2015 Urban Water Management Plan Update

Dear Mr. Johnson:

This letter is to notify your agency that the Vallecitos Water District (VWD) is reviewing and considering amendments to its Urban Water Management Plan (UWMP). This plan is updated every 5 years as required pursuant to California State Water Code Section 10610-10610.4, and addresses water supply reliability and management by VWD for at least the next twenty (20) years.

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March 24, 2016

Kevin Crawford, City Manager
City of Carlsbad
1635 Faraday Avenue
Carlsbad, CA 92008

RE: Vallecitos Water District 2015 Urban Water Management Plan Update

Dear Mr. Crawford:

This letter is to notify your agency that the Vallecitos Water District (VWD) is reviewing and considering amendments to its Urban Water Management Plan (UWMP). This plan is updated every 5 years as required pursuant to California State Water Code Section 10610-10610.4, and addresses water supply reliability and management by VWD for at least the next twenty (20) years.

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March 24, 2016

Michelle Skaggs Lawrence, City Manager
City of Oceanside
300 North Coast Highway
Oceanside, CA 92054

RE: Vallecitos Water District 2015 Urban Water Management Plan Update

Dear Ms. Lawrence:

This letter is to notify your agency that the Vallecitos Water District (VWD) is reviewing and considering amendments to its Urban Water Management Plan (UWMP). This plan is updated every 5 years as required pursuant to California State Water Code Section 10610-10610.4, and addresses water supply reliability and management by VWD for at least the next twenty (20) years.

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March 24, 2016

Kimberly Thorner, General Manager
Olivenhain Municipal Water District
1966 Olivenhain Road
Encinitas, CA 92024

RE: Vallecitos Water District 2015 Urban Water Management Plan Update

Dear Ms. Thorner:

This letter is to notify your agency that the Vallecitos Water District (VWD) is reviewing and considering amendments to its Urban Water Management Plan (UWMP). This plan is updated every 5 years as required pursuant to California State Water Code Section 10610-10610.4, and addresses water supply reliability and management by VWD for at least the next twenty (20) years.

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March 24, 2016

Gary Arant, General Manager
Valley Center Municipal Water District
29300 Valley Center Road
Valley Center, CA 92082

RE: Vallecitos Water District 2015 Urban Water Management Plan Update

Dear Mr. Arant:

This letter is to notify your agency that the Vallecitos Water District (VWD) is reviewing and considering amendments to its Urban Water Management Plan (UWMP). This plan is updated every 5 years as required pursuant to California State Water Code Section 10610-10610.4, and addresses water supply reliability and management by VWD for at least the next twenty (20) years.

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March 24, 2016

Brian Brady, General Manager
Fallbrook Public Utilities District
PO Box 2290
Fallbrook, CA 92088-2290

RE: Vallecitos Water District 2015 Urban Water Management Plan Update

Dear Mr. Brady:

This letter is to notify your agency that the Vallecitos Water District (VWD) is reviewing and considering amendments to its Urban Water Management Plan (UWMP). This plan is updated every 5 years as required pursuant to California State Water Code Section 10610-10610.4, and addresses water supply reliability and management by VWD for at least the next twenty (20) years.

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Sincerely,

Robert Scholl

Robert Scholl, P.E.
Senior Engineer – Development Services
VALLECITOS WATER DISTRICT

VALLECITOS WATER DISTRICT
Water and Wastewater Specialists since 1955

201 Vallecitos de Oro • San Marcos, California • 92069-1453 Telephone **(760) 744-0460**

March 24, 2016

Tom Kennedy, General Manager
Rainbow Water District
3707 Old Highway 395
Fallbrook, CA 92028

RE: Vallecitos Water District 2015 Urban Water Management Plan Update

Dear Mr. Kennedy:

This letter is to notify your agency that the Vallecitos Water District (VWD) is reviewing and considering amendments to its Urban Water Management Plan (UWMP). This plan is updated every 5 years as required pursuant to California State Water Code Section 10610-10610.4, and addresses water supply reliability and management by VWD for at least the next twenty (20) years.

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March 24, 2016

Roy Coox, General Manager
Vista Irrigation District
1391 Engineer Street
Vista, CA 92081-8840

RE: Vallecitos Water District 2015 Urban Water Management Plan Update

Dear Mr. Coox:

This letter is to notify your agency that the Vallecitos Water District (VWD) is reviewing and considering amendments to its Urban Water Management Plan (UWMP). This plan is updated every 5 years as required pursuant to California State Water Code Section 10610-10510.4, and addresses water supply reliability and management by VWD for at least the next twenty (20) years.

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March 24, 2016

Michael Bardin, General Manager
Santa Fe Irrigation District
5920 Linea Del Cielo
Rancho Santa Fe, CA 92067

RE: Vallecitos Water District 2015 Urban Water Management Plan Update

Dear Mr. Bardin:

This letter is to notify your agency that the Vallecitos Water District (VWD) is reviewing and considering amendments to its Urban Water Management Plan (UWMP). This plan is updated every 5 years as required pursuant to California State Water Code Section 10610-10610.4, and addresses water supply reliability and management by VWD for at least the next twenty (20) years.

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March 24, 2016

Bill O'Donnell, General Manager
San Dieguito Water District
160 Calle Magdalena
Encinitas, CA 92024

RE: Vallecitos Water District 2015 Urban Water Management Plan Update

Dear Mr. O'Donnell:

This letter is to notify your agency that the Vallecitos Water District (VWD) is reviewing and considering amendments to its Urban Water Management Plan (UWMP). This plan is updated every 5 years as required pursuant to California State Water Code Section 10610-10610.4, and addresses water supply reliability and management by VWD for at least the next twenty (20) years.

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March 24, 2016

Greg Thomas, General Manager
Rincon del Diablo Water District
1920 North Iris Lane
Escondido, CA 92026

RE: Vallecitos Water District 2015 Urban Water Management Plan Update

Dear Mr. Thomas:

This letter is to notify your agency that the Vallecitos Water District (VWD) is reviewing and considering amendments to its Urban Water Management Plan (UWMP). This plan is updated every 5 years as required pursuant to California State Water Code Section 10610-10610.4, and addresses water supply reliability and management by VWD for at least the next twenty (20) years.

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Robert Scholl

Robert Scholl, P.E.
Senior Engineer – Development Services
VALLECITOS WATER DISTRICT

Order ID: 4163089

* Agency Commission not included

GROSS PRICE * : **$290.20**

PACKAGE NAME: Legal-9col-Legal Notices

Product(s): San Diego Union Tribune, CApublicnotice.com, mobile.sduniontribune.com
AdSize(s): 1 Column,
Run Date(s): Sunday, May 08, 2016, Sunday, May 15, 2016
Color Spec. B/W

Preview

PUBLIC HEARING NOTICE VALLECITOS WATER DISTRICT 2015 URBAN WATER MANAGEMENT PLAN UPDATE

DATE: May 8, 2016
LEAD AGENCY: Vallecitos Water District 201 Vallecitos de Oro San Marcos, CA 92069

This serves as a formal notice that the Vallecitos Water District (District) is intending to review and update its 2010 Urban Water Management Plan (UWMP) pursuant to California State Water Code Section 10610-10610.4. A public hearing for the District's Urban Water Management Plan is scheduled to take place at the following time and location:
Date: June 1, 2016

Order ID: 4163089

* Agency Commission not included

GROSS PRICE * : $290.20

PACKAGE NAME: Legal-9col-Legal Notices

Date: June 1, 2016
Time: 5:00 p.m.
Place: Vallecitos Water District Main Office - 201 Vallecitos de Oro San Marcos, CA 92069
Please contact Robert Scholl at (760) 744-0460 or at rscholl@vwd.org for more information.

MINUTES OF A REGULAR MEETING OF THE BOARD OF DIRECTORS
OF THE VALLECITOS WATER DISTRICT
WEDNESDAY, JUNE 1, 2016, AT 5:00 PM AT THE DISTRICT OFFICE,
201 VALLECITOS DE ORO, SAN MARCOS, CALIFORNIA

President Sannella called the Regular meeting to order at the hour of 5:00 p.m.

Aiyanna Konatsu, member of the public, led the pledge of allegiance.

Present:
Director Elitharp
Director Evans
Director Hernandez
Director Martin
Director Sannella

Staff Present:
Interim General Manager Scaglione
Legal Counsel Scott
Administrative Services Manager Emmanuel
District Engineer Gumpel
Finance Manager Fusco
Operations & Maintenance Manager Pedrazzi
Capital Facilities Senior Engineer Hubbard
Development Services Senior Engineer Scholl
Public Information/Conservation Supervisor Robbins
Executive Secretary Posvar
Administrative Secretary Johnson

ADOPT AGENDA FOR THE REGULAR MEETING OF JUNE 1, 2016

16-06-01 MOTION WAS MADE by Director Martin, seconded by Director Evans, and carried unanimously, to adopt the agenda for the Regular Board Meeting of June 1, 2016.

PRESENTATIONS

President Sannella presented certificates to Yanitza Morales, Aiyanna Konatsu and Alyssa Arzola, the top three entrants in the calendar contest selected to represent Vallecitos Water District in the North County Water Agencies' 2017 calendar.

President Sannella presented Jeremy Scott, Senior Collection Systems Worker, with the H.R. LaBounty Safety Award from ACWA/Joint Powers Insurance Authority for fabricating a flush mounted stainless steel grate that removes the aboveground stacks on scrubbers located in sidewalks.

President Sannella recognized retiree, Dennis Lamb, General Manager, for his years of service with the District.

ORAL COMMUNICATIONS

None.

CONSENT CALENDAR

16-06-02 MOTION WAS MADE by Director Hernandez, seconded by Director Evans, and carried unanimously, to approve the Consent Calendar as presented.

1.1 Approval of Minutes

A. Regular Board Meeting – May 18, 2016

1.2 Warrant List through June 1, 2016 - $3,484,256.32

1.3 Vallecitos Water District 2015 Consumer Confidence Report

Director Martin requested clarification regarding information contained in the Vallecitos Water District 2015 Consumer Confidence Report, to which staff responded.

1.4 Resolution Expressing Appreciation for the Services of Dennis O. Lamb

16-06-03 MOTION WAS MADE by Director Martin, seconded by Director Hernandez, and carried unanimously, to adopt the resolution.

Resolution No. 1487 - The roll call vote was as follows:

AYES: Elitharp, Evans, Hernandez, Martin, Sannella
NOES:
ABSTAIN:
ABSENT:

PUBLIC HEARING

PUBLIC HEARING FOR AND ADOPTION OF THE 2015 URBAN WATER MANAGEMENT PLAN

President Sannella opened the hearing as duly noted and posted. The hearing opened at 5:29 p.m.

Interim General Manager Scaglione stated the District is in the process of updating its 2010 Urban Water Management Plan (UWMP) as required by the Urban Water Management Planning Act every five years (years ending in "0" or "5"). UWMPs are prepared by California's urban water suppliers to support their long-term resource planning and ensure that adequate water supplies are available to meet existing and future demands.

Development Services Senior Engineer Scholl stated the purpose of the public hearing is for compliance with Senate Bill X_{7-7} which mandates conservation targets of 10% by 2015 and 20% by 2020; review of the method for determining the District's urban water use targets; compliance with new legislation in Senate Bill 1420 which addresses water loss auditing and future water savings; and to allow community input regarding the target implementation plan.

He reviewed the following information contained in the draft UWMP:

- Introduction and Overview
- Plan Preparation
- System Description
- System Water Use
- Baselines and Targets
- System Supplies
- Water Supply Reliability Assessment
- Water Shortage Contingency Planning
- Demand Management Measures
- Plan Adoption, Submittal and Implementation

Development Services Senior Engineer Scholl stated the District's UWMP is required to be adopted by the Board by July 1, 2016.

General discussion took place.

There being no members of the public wishing to address the Board, President Sannella closed the hearing at 6:02 p.m.

16-06-04 MOTION WAS MADE by Director Hernandez, seconded by Director Evans, and carried unanimously, to receive comments from the public on the District's draft 2015 Urban Water Management Plan and approve the UWMP to be brought back to the June 15, 2016 Board meeting for adoption.

ACTION ITEMS

RESOLUTION NO. 1494

RESOLUTION OF THE BOARD OF DIRECTORS OF THE VALLECITOS WATER DISTRICT ADOPTING THE 2015 URBAN WATER MANAGEMENT PLAN

WHEREAS, the Urban Water Management Planning Act (Water Code Section 10610 et. seq.) ("the Act") requires that every urban water supplier adopt an urban water management plan and to update the plan every five years; and

WHEREAS, the Vallecitos Water District ("District") is a County Water District formed and existing pursuant to Water Code Section 32000 et. seq. and is an urban water supplier within the meaning of the Act; and

WHEREAS, in cooperation with the San Diego County Water Authority, the District has drafted an update to the District's 2010 Urban Water Management Plan; and

WHEREAS, the District has received written comments from responsible agencies and the public and has noticed a public hearing pursuant to Government Code Section 6066 to consider additional public input; and

WHEREAS, after review of the draft plan and consideration of public input, the Board of Directors has determined that it will serve the best interests of the residents and communities served by the District to approve and adopt the 2015 Urban Water Management Plan as presented.

NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of the Vallecitos Water District as follows:

Section 1: The Board of Directors hereby approves and adopts the 2015 Urban Water Management Plan as the plan required by the Act.

Section 2: The District shall implement the plan in accordance with its provisions.

Section 3: The Secretary of the District is authorized and directed to file a copy of the District plan with the Department of Water Resources of the State of California by July 1, 2016.

PASSED, APPROVED AND ADOPTED by the Board of Directors of the Vallecitos Water District at a regular meeting held on this 15th day of June, 2016, by the following roll call vote:

AYES:	ELITHARP, EVANS, HERNANDEZ, SANNELLA
NOES:	
ABSTAIN:	
ABSENT:	MARTIN

Michael A. Sannella, President
Board of Directors
Vallecitos Water District

ATTEST:

Tom Scaglione, Secretary
Board of Directors
Vallecitos Water District

VALLECITOS WATER DISTRICT
Water and Wastewater Specialists since 1955

201 Vallecitos de Oro • San Marcos, California • 92069-1453 Telephone **(760) 744-0460**

June 22, 2016

County of San Diego
Department of Planning and Development Services
5510 Overland Avenue
San Diego, CA 92123

RE: Vallecitos Water District 2015 Urban Water Management Plan

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Sincerely,

Robert Scholl

Robert Scholl, P.E.
Senior Engineer – Development Services
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June 22, 2016

Jack Griffin, City Manager
City of San Marcos
1 Civic Center Drive
San Marcos, CA 92069

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June 22, 2016

Graham Mitchell, City Manager
City of Escondido
201 North Broadway
Escondido, CA 92025

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June 22, 2016

Patrick Johnson, City Manager
City of Vista
200 Civic Center Drive
Vista, CA 92084

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Kevin Crawford, City Manager
City of Carlsbad
1635 Faraday Avenue
Carlsbad, CA 92008

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June 22, 2016

Michelle Skaggs Lawrence, City Manager
City of Oceanside
300 North Coast Highway
Oceanside, CA 92054

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June 22, 2016

Eldon Boone, General Manager
Vista Irrigation District
1391 Engineer Street
Vista, CA 92081-8840

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June 22, 2016

Kimberly Thorner, General Manager
Olivenhain Municipal Water District
1966 Olivenhain Road
Encinitas, CA 92024

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June 22, 2016

Gary Arant, General Manager
Valley Center Municipal Water District
29300 Valley Center Road
Valley Center, CA 92082

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June 22, 2016

Brian Brady, General Manager
Fallbrook Public Utilities District
PO Box 2290
Fallbrook, CA 92088-2290

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June 22, 2016

Michael Bardin, General Manager
Santa Fe Irrigation District
PO Box 409
Rancho Santa Fe, CA 92067

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VALLECITOS WATER DISTRICT
Water and Wastewater Specialists since 1955

201 Vallecitos de Oro • San Marcos, California • 92069-1453 Telephone **(760) 744-0460**

June 22, 2016

Bill O'Donnell, General Manager
San Dieguito Water District
160 Calle Magdalena
Encinitas, CA 92024

RE: Vallecitos Water District 2015 Urban Water Management Plan

This letter is to notify your agency that on June 15, 2016, the Vallecitos Water District (VWD) Board of Directors approved Resolution No. 1494 adopting the 2015 Urban Water Management Plan (UWMP). This plan is updated every 5 years as required pursuant to California State Water Code Section 10610-10610.4, and addresses water supplies and management through 2035.

Enclosed is an electronic and hard copy of VWD's UWMP for your agency's use. This document is also available for public review online at www.vwd.org and at the Engineering Counter at VWD's main office located at 201 Vallecitos de Oro in San Marcos.

For questions or other inquiries, please contact me at (760) 744-0460 or rscholl@vwd.org.

Sincerely,

Robert Scholl

Robert Scholl, P.E.
Senior Engineer – Development Services
VALLECITOS WATER DISTRICT

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Water and Wastewater Specialists since 1955

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June 22, 2016

Greg Thomas, General Manager
Rincon del Diablo Water District
1920 North Iris Lane
Escondido, CA 92026

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June 22, 2016

California Department of Water Resources
1416 9th Street
Sacramento, CA 95814
Attention: Coordinator, Urban Water Management Plans

RE: Vallecitos Water District 2015 Urban Water Management Plan

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Enclosed is a hard copy of VWD's UWMP for your agency's use. This document is also available for public review online at www.vwd.org and at the Engineering Counter at VWD's main office located at 201 Vallecitos de Oro in San Marcos. VWD will also submit the UWMP electronically through the Department of Water Resources' online submittal tool, WUEdata, by July 1, 2016.

For questions or other inquiries, please contact me at (760) 744-0460 or rscholl@vwd.org.

Sincerely,

Robert Scholl

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Senior Engineer – Development Services
VALLECITOS WATER DISTRICT

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June 22, 2016

California State Library
Government Publications Section
PO Box 942837
Sacramento, CA 94237-0001
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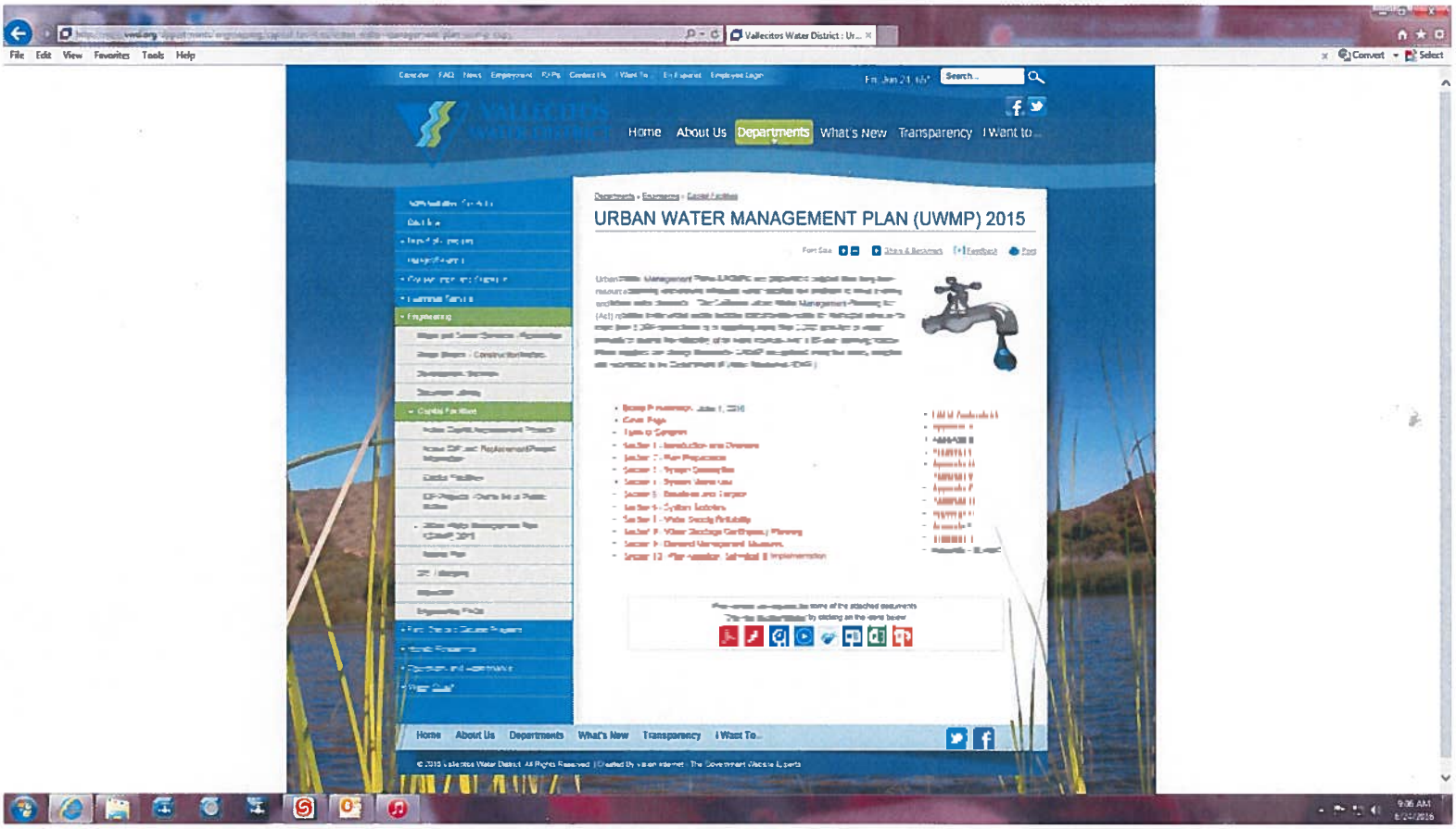


Friday, Jun 24, 2016 09:06 AM

The San Diego Union-Tribune Today's Paper Weather 67° F

NEWS SPORTS BUSINESS A&E LIFESTYLE MILITARY OPINION

Water district launches student video contest

By Michelle Breier | 11 a.m. Dec. 11, 2014

SAN MARCOS — The Vallecitos Water District, in partnership with the Palomar College GEAR UP program and community sponsor Menchie's Frozen Yogurt, is hosting a drought-awareness video contest for middle and high school students. The contest theme is "A Week Without Water," and participants are asked to create a video about what life would be like for a week without tap water to help water users understand the value of the natural resource.

Videos should be no longer than two minutes. The contest is open to middle and high school students in the Vallecitos Water District service area, which includes the city of San Marcos; Lake San Marcos; parts of the cities of Carlsbad, Escondido and Vista; and some unincorporated areas in North County. Videos may be submitted by an individual or a team. The deadline for entries is 5 p.m. Dec. 22.

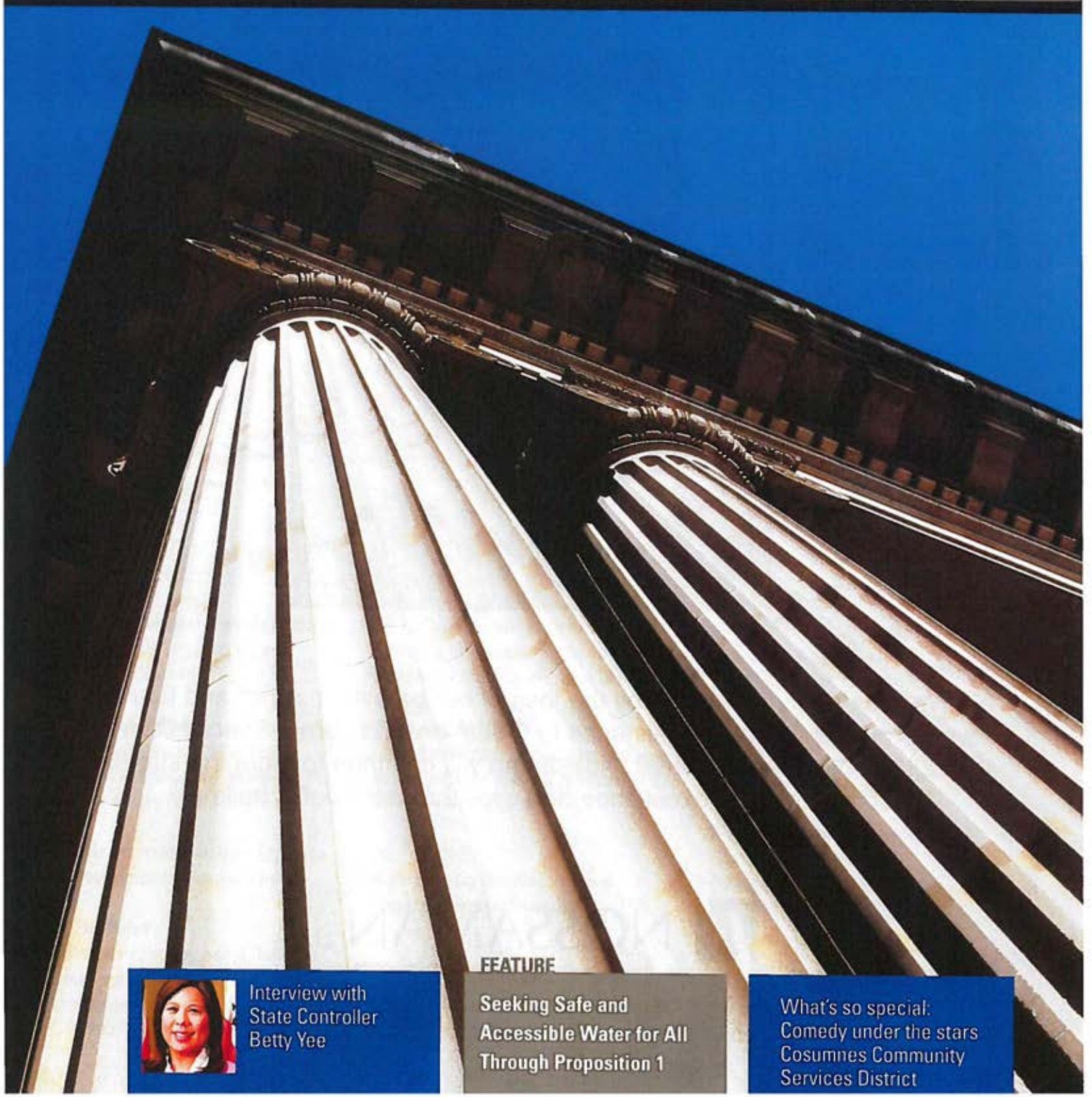
Cash prizes of $500, $300 and $150 will be awarded to first-, second- and third-place winners, respectively. Winners also will receive a frozen yogurt party from Menchie's and a college shirt of their choice.

Entry forms and rules can be found at vwd.org. For more information, contact Alicia Yerman at ayerman@vwd.org or (760) 752-7123.

michelle.breier@utsandiego.com • (760) 529-4957 • @UTSDbreier

CA SPECIAL DISTRICT

Publication of the California Special Districts Association Volume 10, Issue 2, Mar - Apr 2015



Interview with State Controller Betty Yee

FEATURE

Seeking Safe and Accessible Water for All Through Proposition 1

What's so special: Comedy under the stars Cosumnes Community Services District

Scouting new methods for community outreach

By Grace Cardenas, Public Information Specialist, Vallecitos Water District

Left: Girl Scout troop 4642 receives their fat trappers and grease pamphlets from VWD.

Right: Girls speak to a resident in San Marcos about the district's mandatory water use restrictions

The last time Girl Scouts knocked on doors in San Marcos, it had nothing to do with buying a sweet treat and everything to do with buying into a healthier environment. This was because the Vallecitos Water District (VWD) teamed up with local Girl Scout troops to educate residents about how to save water and prevent sewer spills.

What started as a simple way for Girl Scouts to complete their Wonder of Water (WOW) Journey, a Girl Scout national leadership and advocacy project, has transformed into a comprehensive public education tool. So far, VWD has partnered with two different troops who have volunteered to go door-to-door to speak with the community.

Partnering with the Girl Scouts was an easy decision. "The girls are already skilled at going door-to-door, engaging people and selling a product. All we needed to do was educate them, provide the materials, and give them speaking points," said VWD General Manager Dennis O. Lamb.

To prepare for their outing, the Girl Scouts spent an afternoon at the VWD, learning from various water professionals who presented topics that included water conservation, water operations and wastewater collections. The girls were also given a tour of the district's native plant garden to learn about sustainable gardening, outdoor landscaping techniques and water reuse.

"Our girls left the district with the knowledge and motivation needed to complete their project. They were excited to share the drought awareness message with friends and neighbors," said Kimberly Monaco, leader of Girl Scout Troop 1165.

The first outreach team, a group of eight- and nine-year-olds from troop 4642, spent a weekend distributing free fat-trappers. The fat-trappers, small containers housing multiple disposal bags to store used cooking grease, have been vital in the agency's battle against excess fats, oils and grease that enter the sewer system to form blockages. Over time, these blockages can cause sewer spills, which can pollute creeks, lakes, lagoons, beaches and bays.

Although already free to the public, teaming up with the girls assisted VWD in placing an additional 45 fat-trappers in homes around San Marcos. "The Girl Scouts were a huge help and the project proved to be an

SHARE YOUR COMMUNITY CONNECTIONS

Is your district interacting with the community in a new and original way? *California Special District* wants to know about it! Contact Nicole Dunn at nicoled@csda.net or (877) 924-2732.

effective outreach approach," said Corey Harrell, VWD Source Control Technician. "The public is already familiar with Scouts arriving with cookies, so when they showed up at their doors with fat-trappers, people paid attention."

The second group of girls, made up of seven- and eight-year-olds from troop 1165, volunteered to pass out informational packets and speak to residents about water conservation as part of VWD's drought outreach campaign. The girls asked customers to adhere to the district's mandatory water-use restrictions. They also provided tips on how to save water and information on rebate programs for water-efficient devices.

Monaco said the girls were able to distribute 200 packets in one weekend, but perhaps more importantly, they were able to raise awareness. "Some people had no idea about the district's restrictions or the seriousness of the drought."

After their community service, each girl was recognized publicly by the VWD Board of Directors. They also received a special VWD logo patch for their uniform, which represents their commitment to conservation and their ability to act as ambassadors on behalf of the district.

VWD plans to continue their partnership with the Girl Scouts. In fact, they intend to deploy their new ambassadors later this year, if water supply allocations are imposed. ■

"Our girls left the district with the knowledge and motivation needed to complete their project. They were excited to share the drought awareness message with friends and neighbors," said Kimberly Monaco, leader of Girl Scout Troop 1165.

Girl Scouts visit the district's native plant garden to learn about sustainability, water conservation and water reuse.

Armed with informational packets about the drought and water conservation, girls from troop 1165 prepare to promote drought awareness.

Girl Scout troop members, their leader Lale Laubach, and VWD Board Member Hal Martin, pose for a picture during a VWD Board Meeting.

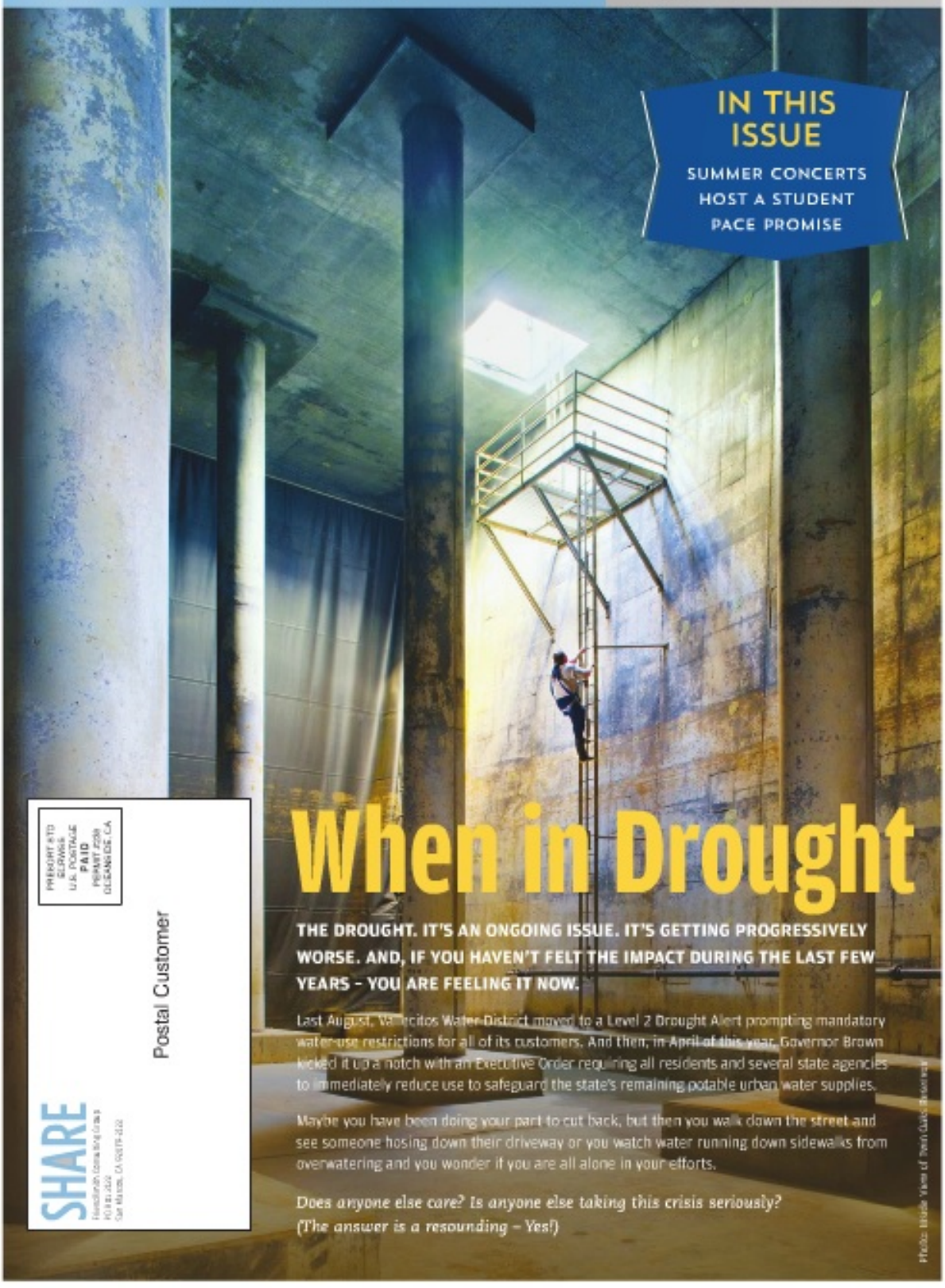
HELLO

SHARE + SAN MARCOS

[your community connection]

WWW.SHARESANMARCOS.COM

VOL 2 ISSUE 1 JUNE 2015



IN THIS ISSUE

PRESORTED STANDARD U.S. POSTAGE PAID PERMIT #259 OCEANSIDE, CA

Postal Customer

SHARE

When in Drought

THE DROUGHT. IT'S AN ONGOING ISSUE. IT'S GETTING PROGRESSIVELY WORSE. AND, IF YOU HAVEN'T FELT THE IMPACT DURING THE LAST FEW YEARS – YOU ARE FEELING IT NOW.

Last August, Vallecitos Water District moved to a Level 2 Drought Alert prompting mandatory water-use restrictions for all of its customers. And then, in April of this year, Governor Brown kicked it up a notch with an Executive Order requiring all residents and several state agencies to immediately reduce use to safeguard the state's remaining potable urban water supplies.

Maybe you have been doing your part to cut back, but then you walk down the street and see someone hosing down their driveway or you watch water running down sidewalks from overwatering and you wonder if you are all alone in your efforts.

Does anyone else care? Is anyone else taking this crisis seriously?
(The answer is a resounding – Yes!)

Photo: Inside View of Twin Oaks Reservoir

VALLECITOS WATER DISTRICT
Water and Wastewater Specialists since 1955

Frequently Asked Questions: Outdoor Water Use

We use up to 80 percent of our water outdoors. You can help reduce that amount.

Many people assume that they use most of their water inside, for drinking, showering and washing clothes and dishes. But research shows we actually use as much as 80 percent of our water outside of the home. Here are common questions about outdoor use.

Readily-available succulents are both water-wise and beautiful in North County gardens!

How can I find out about water-saving plants and how to care for them?

Vallecitos has several informational gardening brochures available in our lobby – or contact us at 760.744.0460 and we'll mail you a packet of information. You can also check out the San Diego County Water Authority's website (www.watersmartsd.org) for free landscape design templates and a 140-page eGuide to a WaterSmart Lifestyle. And come by the District's Sustainable Demonstration Garden to see some of these plants for yourself.

Does Vallecitos offer rebates for installing drought-tolerant plants?

Vallecitos currently does not offer rebates, but our wholesalers, the San Diego County Water Authority and the Metropolitan Water District, sometimes offer rebates. To see what rebates are available, go to www.vwd.org/rebates.

Are there any classes I can take to learn more about water-wise landscaping?

Vallecitos periodically offers water-wise landscape classes and other events, which are advertised in our *Splash!* newsletter, or promoted on our website and social media. "Like Us" on Facebook, follow us on Twitter or sign up for eNotifications (www.vwd.org/enotification) and you will automatically receive notifications. Gardening classes are also offered throughout San Diego County and are posted on the events section at www.watersmartsd.org.

My water bill is a lot higher this month. Is there someone who can come to my house and help me locate the problem?

Yes, Vallecitos can send out a certified irrigation auditor free of charge to your home or business to help find the problem. For more information, go to: www.vwd.org/LandscapeAudit.

What are the current mandatory restrictions on water use in the District?

Vallecitos' emergency drought restrictions limit outdoor irrigation from June through October to two unassigned days per week/8 minutes per station. If demands are not reduced by 24%, additional enforcement may be needed. However, our customers are meeting or exceeding our goal so far!

VALLECITOS WATER DISTRICT
Water and Wastewater Specialists since 1955

Water Conservation: Outdoor Water Use

Tips for Outdoor Water Conservation

When it comes to conserving water, small changes can have a big impact. The following is a list of things you can do outside your home to realize water savings from making simple changes.

To help you conserve, Vallecitos offers a free landscape irrigation audit by a certified landscape irrigation auditor. For more information visit: www.watersmartcheckup.org.

- Repair irrigation line leaks and broken sprinkler heads. Save up to 10 gallons per minute per leak.
- Adjust sprinklers to prevent overspray and runoff. Save up to 15 to 25 gallons per day.
- Don't overwater. (1) Reduce each irrigation cycle by 1 to 3 minutes or eliminate one irrigation cycle per week. Water only when the top inch of soil is dry. (2) Replace batteries in your irrigation controller each spring and fall, and adjust your programming based on the season. Save 15 to 25 gallons per minute; up to 250 gallons per cycle.
- Use a hose nozzle that shuts off when you release the handle. Save up to 18 gallons per minute.
- Water in the late evening or early morning to reduce evaporation and interference from wind. Save 20 to 25 gallons per day.
- Apply a three-inch layer of mulch over planting areas, keeping the mulch six inches away from plant stems and tree trunks to avoid mildew. Save 20 to 30 gallons per day per 1,000 square feet.

- Install drip irrigation systems for trees, shrubs and flowers to get water to plant roots more efficiently. Save 20 to 25 gallons per day.
- Turn off your irrigation one to three days before it's expected to rain. Turn it back on when your soil is dry. This can save hundreds or potentially thousands of gallons.
- Upgrade to a "smart" irrigation controller that automatically adjusts watering times for hotter weather and stops watering when it rains. Rebates may even be available for this type of product. Save 40 gallons per irrigation cycle.
- Replace your lawn with native or Mediterranean plants, trees, shrubs or ground cover. These plantings provide greenery for much of the year and demand less water. Save 33 to 60 gallons per day per 1,000 square feet, depending on climate.
- Read "A Homeowner's Guide to a WaterSmart Landscape" (http://sdcwa.org/landscape-guide).

VALLECITOS WATER DISTRICT
Water and Wastewater Specialists since 1955

Drought Restriction Information

On July 15, 2014, the State Water Resources Control Board (SWRCB) adopted emergency statewide regulations to require all California water agencies to mandate water-use restrictions. To comply with the state mandates, on August 6, 2014, Vallecitos' Board of Directors voted to increase to a Level 2 "Drought Alert" to require mandatory water-use restrictions for its customers.

In an executive order issued on April 1, 2015, Governor Brown ordered the SWRCB to implement reductions in cities and towns to cut usage by 25 percent. The SWRCB mandated a 24 percent reduction in potable water use for Vallecitos from 2013 demands, which includes residential, commercial, industrial and institutional demands.

On May 20, 2015, in an effort to meet the 24 percent reduction required by the state, prevent the waste and unreasonable use of water, and promote water conservation, the Vallecitos Board adopted additional emergency drought conservation measures. As detailed in Vallecitos' Board-approved drought ordinances, the mandatory conservation actions for the current Level 2 drought restrictions, (including the newly added emergency regulations), are listed below. Vallecitos thanks everyone for their assistance during these challenging water supply times.

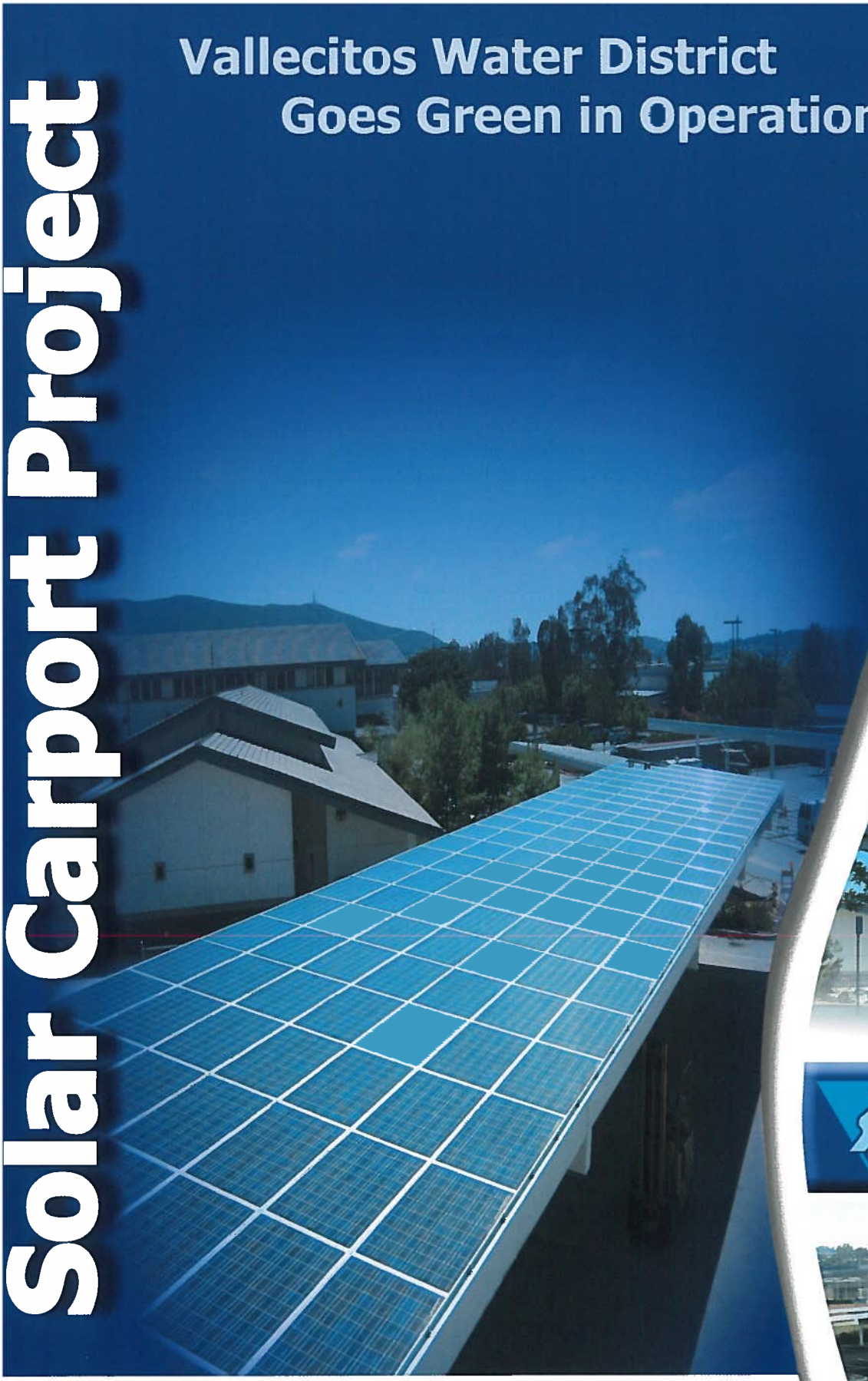
Mandatory Conservation Actions for Level 2 Drought

- **Residential and commercial landscape irrigation will be limited to no more than two unassigned days per week and no more than once a week from November through May. (Excludes commercial growers and nurseries).**
- **Irrigation using sprinklers will be limited to no more than 8 minutes per watering station per day. (Systems using water-efficient devices are excluded).**
- **Stop washing down pavements, sidewalks, driveways, parking lots, tennis courts or patios.**
- **Prevent water waste associated with inefficient landscape irrigation, as well as flows onto non-targeted areas such as nearby properties, hardscapes, or roadways.**
- **Irrigate only before 10 a.m. and after 6 p.m.**
- **Use a hand-held hose equipped with a positive shut-off nozzle or bucket to irrigate landscapes not connected to an automatic system.**
- **Stop operation of ornamental fountains, unless re-circulated water is used.**
- **Wash vehicles using a bucket or hand-held hose with positive shut-off nozzle, mobile high pressure/low volume wash system or at a commercial site that re-circulates water onsite.**
- **Serve and refill water in restaurants only upon request. Offer guests of commercial lodging the option of not laundering towels and linens daily.**
- **Repair all water leaks within 48 hours of notification by the Vallecitos Water District.**
- **Outdoor watering is prohibited during and up to 48 hours after a measureable rain event.**
- **Potable water may not be used to irrigate ornamental turf within public street right of ways, including adjacent landscape strips.**

For more drought restriction information, go to www.vwd.org/Drought or call (760) 744-0460.
To report water waste, go to www.vwd.org/WaterWaste.

Solar Carport Project

Vallecitos Water District Goes Green in Operations



VALLECITOS WATER DISTRICT
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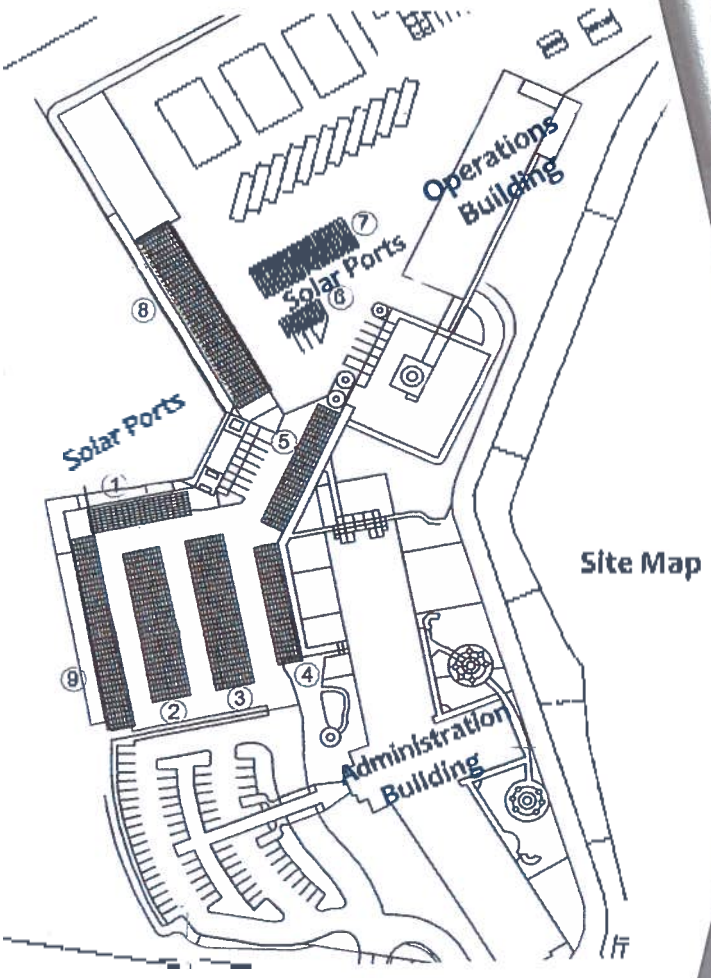
Using Solar Panel and Energy Conservation Programs

SOLAR CARPORT PROJECT

Facts About the Project:

- Constructed in 2006 to supply energy to the headquarter's facilities.
- The system supplies an average of 90% of the electricity used on site each year. (340.9 kW AC PV)
- System can power 170 residential homes.
- Solar panels have a 25-year life expectancy.



Site Map

Printed materials paid for by a grant from:

THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

What are the Benefits of the Solar Carport Project?

- Provides shaded parking for both staff and fleet vehicles, as well as equipment.
- Vallecitos saved over $60,000 dollars in energy costs the first year of operating the solar ports. With rising energy costs, these savings will only increase over time.

Environmental Benefits Over 25 Years

- Reduces Carbon Dioxide (CO_2) by 7,173 tons.
- Reduces Nitrogen Oxide (NO_x) by 17,331 lbs.
- Reduces Sulphur Dioxide (SO_2) by 10,030 lbs.
- Its production:
  - Is the equivalent of removing 1,251 cars from the road.
  - Offsets the emission of 7,173 tons of greenhouse gases and pollutants.
  - Would require 1,933 acres of rainforest to reduce an equivalent amount of Carbon Dioxide.

Other Ways Vallecitos is Green in Operations

- Use of ultra high efficiency motors at all water and sewer pump stations.
- Centralized storage of water supplies reduces amount of pumping required.
- Pump stations and reservoirs are designed to maximize off-peak electrical rates .
- Use of Supervisory Control And Data Acquisition (SCADA system), which collects data from remote locations such as pump stations, and sends this data to a central computer to reduce drive time to these facilities.

VALLECITOS WATER DISTRICT

Water and Wastewater Specialists since 1955

SUSTAINABLE DEMONSTRATION GARDEN

A sustainable garden is an attractive landscape that is in balance with the local climate and requires minimal resources, such as fertilizer, pesticides and water. Sustainable gardens meet today's needs without compromising the needs of future generations.

Sustainable features highlighted in Vallecitos' garden include:

Rainwater harvesting system is used to capture water from the roof that would otherwise be wasted.

Captured rainwater is transferred to the water features, which provide water for local wildlife.

Mulch and compost retain moisture in the soil to save water and also reduce the need for fertilizers.

Shade structures made of partially recycled aluminum last much longer than wood.

Solar power is used to operate the pumps on all of the water features.

Weather based irrigation controllers and micro-irrigation save water by using highly efficient technology.

Dry riverbeds add visual interest to the garden, without requiring water or maintenance.

California-friendly plants complete the garden by providing year-round color with little water or maintenance.

Vallecitos thanks the following businesses and schools for their donations to the garden:

- Ace Patio: Aluminum shade structures
- Ace Rain Systems: Rain barrel installation
- Agri Service Inc.: Compost and mulch
- Buena Creek Gardens: Plants
- Bushman Rainwater Harvesting: Rain barrels
- Church's Stoneworks: Water features
- Easy Turf - Artificial Turf
- Hunter Industries Inc.: Irrigation supplies
- KRC Rock: Rockscapes and crane services
- Rain Bird Corp.: Irrigation supplies
- Tarzian Landscape Inc.: Irrigation installation

- Palomar College Environmental Architecture and Design Class - Spring 2010
- Palomar College Sculpture and Foundry Departments - Casted bronze hand
- San Marcos High School Future Farmers of America - Garden planting

Vallecitos Water District California-Friendly Landscape Plant List


Aleppo Pine


Jerusalem Thorn


Crape Myrtle

Full Sun
Shade
Fire Resistant
Flowering
Little Water
Hummingbird Fiendly
Low Water
Butterfly friendly

What's growing on at Vallecitos' demonstration garden?

Some plants are not listed. Please see garden signs for additional plant information.


One-Leaf Onion
(Allium unifolium)
Height 2 ft Width: 1 ft.


Irene
(Lantana)
Height 1-4 ft. Width: 1-2 ft.

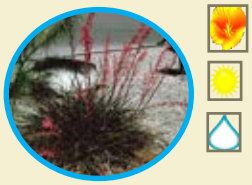

Crown of Thorns
(Euphorbia Splendens)
Height 3ft Width: 4 ft.


California Lilac
(Ceonothus)
Height 2-3 ft Width: 1-2 ft.

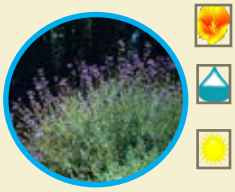

California Poppy
(Eschscholzia californica)
Height 3-5ft Width: 6-8 ft.


Tickseed
(Coreopsis)
Height 1-2 ft Width: 1-2 ft.


Marguerite Daisy
(Chrysanthemum maxmum)
Height 1-2 ft Width: 3-5 ft.

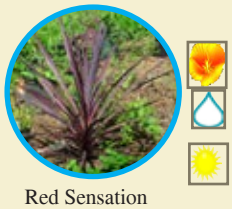

Red Yucca
(Hesperaloe parviflora)
Height 3 ft. Width: 3ft.


Manzanita - The Green Supreme
(Arctostaphylos cultivars)
Height 10-12ft Width: 1ft.


Chapparral Sage
(Salvia clevelandii)
Height 1-2 ft Width: 1-2 ft.


Narrow Leaf California Fuchsia
(Zauschneria cana)
Height 2 ft Width: 3 ft.


English Lavender
(Lavandula angustifolia)
Height 1-2 ft Width: 1-2 ft.


Red Sensation
(Cordyline Australis)
Height 3-4 ft Width: 8-10ft.


Many varieties of Succulents


Upright Rosemary
(Rosmary Oficialis)
Height 4-5 Width: 2-3 ft.


Oleander
(Nerium oleander)
Height 1-2 ft Width: 1-2 ft.


San Diego Sunrise Monkey Flower
(Diplacus puniceus)
Height 4ft Width: 4 ft.


New Zealand Flax
(Phormium 'Monrovia Red')
Height 1-2 ft Width: 1-2 ft.


Lions Tail
(Leonotis Leonurus
Height 4-6 ft Width: 4-6 ft.

MEADOWLARK WATER RECLAMATION FACILITY

"Award of Excellence" - 2009
American Society of Civil Engineers

"Recycled Agency of the Year" - 2008
WateReuse Association

"Plant of the Year" - 1985, 1987, 1989, 1994
"Award of Excellence" - 1987
California Water Environment Association (CWEA)

"Safety Award" - 1997 (CWEA)

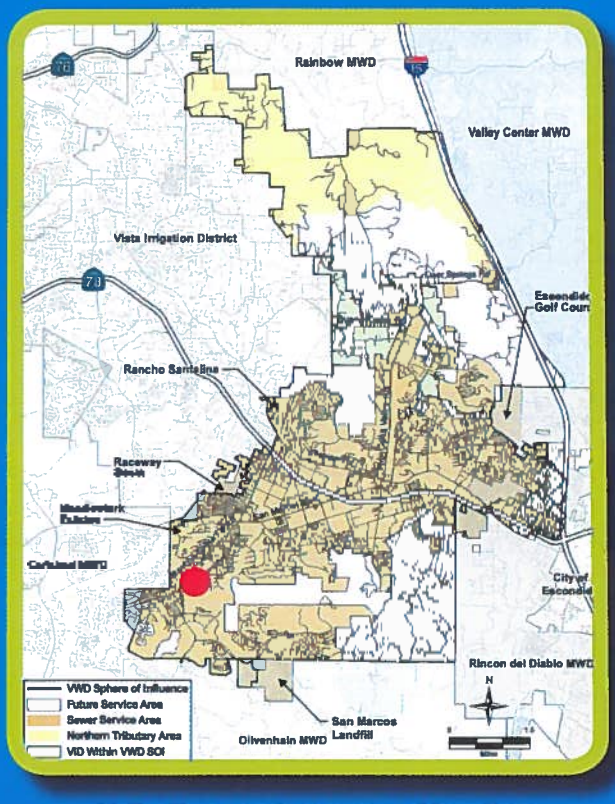
Recycling our most precious resource for a sustainable future.

VALLECITOS WATER DISTRICT
Water and Wastewater Specialists since 1955

Meadowlark Water Reclamation Facility

History

- Opened in 1958 to treat wastewater at 0.25 million gallons per day (mgd) capacity.
- Converted to a water recycling (tertiary treatment) plant in 1982, with an increased capacity of approximately 2 mgd.
- Expanded in 2005 as part of a $25 million upgrade for operational efficiency and to increase capacity to 5 mgd.



Vallecitos service area and location of Meadowlark (in red).

A New Plant within a Plant

All contained within the existing boundaries, the District's most recent upgrade was completed in 2008 to expand and improve the biological processes, which allowed the plant to increase capacity and more efficiently treat the wastewater while using less treatment chemicals. The upgrade consisted of adding:

Primary Treatment

- Grinders and augers to remove large debris, and sedementation basins to improve the removal of solids.

Secondary Treatment

- Roughing filters for a more efficient, fixed-film biological process, followed by activated sludge with aeration basins to improve the water quality.

Tertiary Treatment

- Three additional tertiary filters.

By increasing capacity to 5 mgd, Vallecitos is now able to recycle up to 74% of the wastewater generated in the service area. This reduces the demand for imported water to the region to attain a sustainable future.

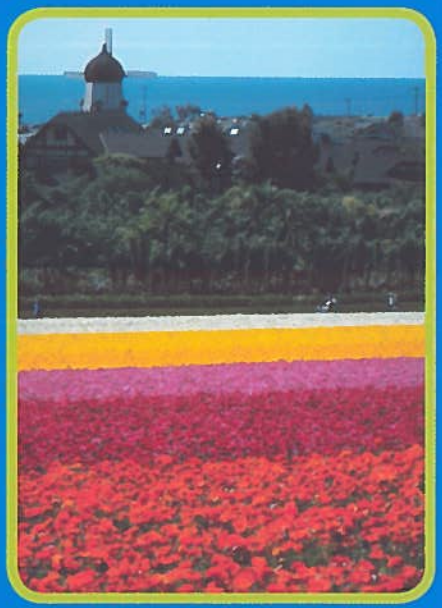
24-inch recycled water pipeline

Distributing the Finished Product

Recycled water is sold to neighboring water agencies and gravity-fed to the lower elevated coastal-communities of Carlsbad and Encinitas.

After the recycled water is processed at Meadowlark, the reclaimed water enters a 24-inch recycled water pipeline en route to:

- Olivenhain Municipal Water District - Contracted to purchase up to 1.5 mgd depending on availability.
- City of Carlsbad - Contracted to purchase a minimum of 2 mgd (December through March) and 3 mgd the remainder of the year, irrigating locations such as Legoland, Carlsbad City Hall and the Carlsbad Flower Fields.
- Surplus recycled water is stored in the District's nearby, 54-million gallon capacity Mahr Reservoir.



The Carlsbad Flower Fields irrigates with recycled water produced at Meadowlark.

Future Recycled Water Use

Vallecitos encourages the use of this viable water source as a member of the North San Diego County Regional Recycled Water Project, a group consisting of 11 North San Diego County water and wastewater agencies that has been assembled to investigate expanded uses of recycled water.

Printed materials paid for by a grant from:
THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

VALLECITOS WATER DISTRICT

Water and Wastewater Specialists since 1955

Twin Oaks Reservoirs

Largest Prestressed Concrete Tanks in the World

Reservoir #2 (40-million gallon tank) awards include:

- "Engineering Excellence Merit Award"- 2010, American Council of Engineering Companies
- "Clean / Green Technology Nominee"- 2009
  San Marcos Chamber of Commerce / San Diego North Economic Development Council
- "Project of the Year in the State of California"- 2008 & 2004
  American Society of Civil Engineers - Region 9
- "Excellence in Engineering Awards for Special Use Structures" - 2008
  Engineers Association of California

Reservoir #1 (33-million gallon tank) awards include:

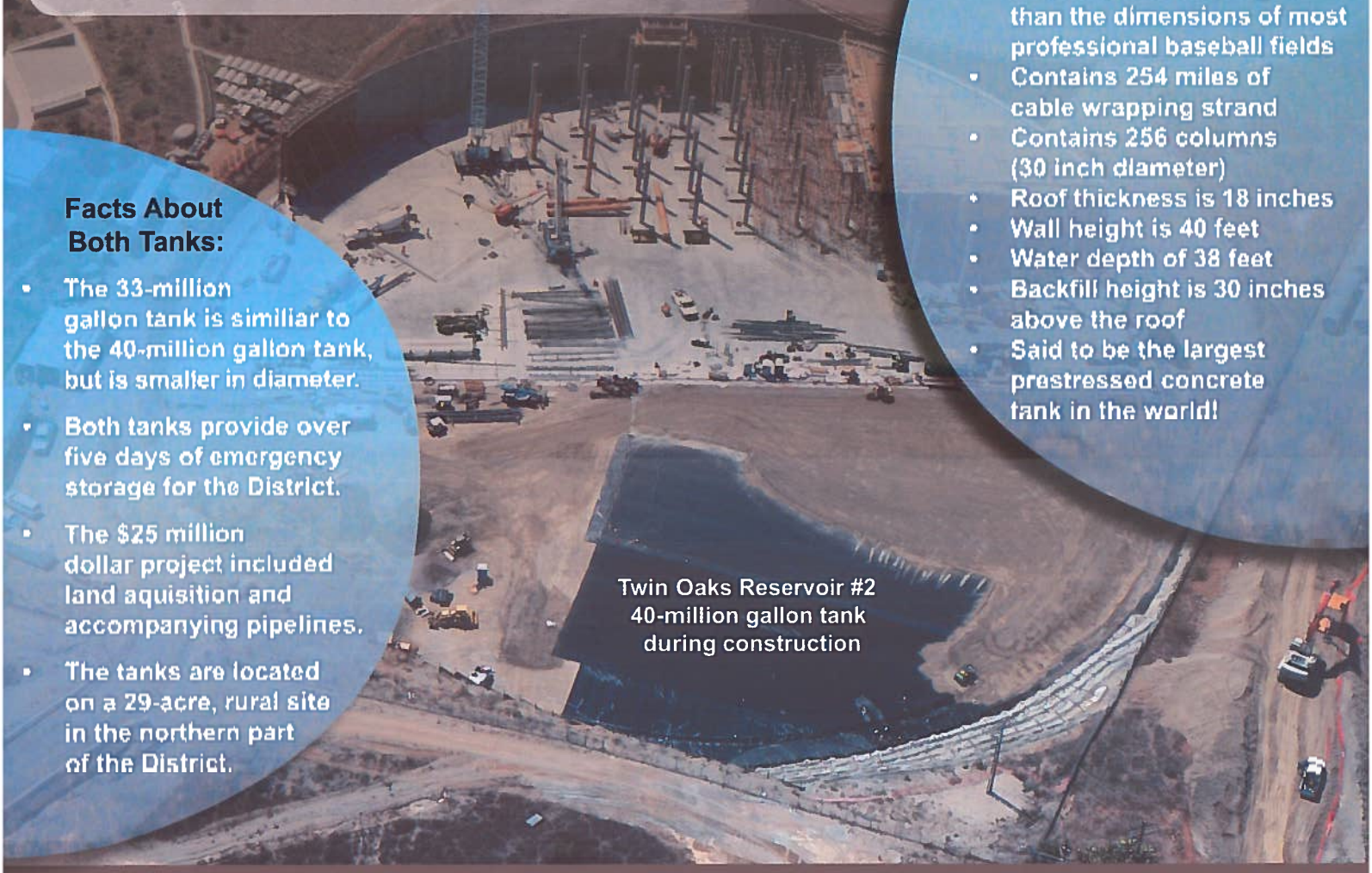
- "Award of Excellence" - 1999, American Society of Civil Engineers
- "Project of the Year" - 2000, The San Diego Engineer Council
- "Engineer Excellence Merit Award"- 2001
  Consulting Engineers and Land Surveyors of California

Impressive Statistics of Reservoir #2

- 40-million gallon capacity
- Inside wall diameter is over 434 feet, which is larger than the dimensions of most professional baseball fields
- Contains 254 miles of cable wrapping strand
- Contains 256 columns (30 inch diameter)
- Roof thickness is 18 inches
- Wall height is 40 feet
- Water depth of 38 feet
- Backfill height is 30 inches above the roof
- Said to be the largest prestressed concrete tank in the world!

Facts About Both Tanks:

- The 33-million gallon tank is similiar to the 40-million gallon tank, but is smaller in diameter.
- Both tanks provide over five days of emergency storage for the District.
- The $25 million dollar project included land aquisition and accompanying pipelines.
- The tanks are located on a 29-acre, rural site in the northern part of the District.



Twin Oaks Reservoir #2
40-million gallon tank
during construction

History of the Project

The Vallecitos Water District originally planned to construct two 33-million gallon tanks at the Twin Oaks Reservoir site. The first 33-million gallon tank was constructed beginning in 1998 and completed in early 2000.

Due to updates to the District's 2002 Master Plan, it was later determined that a second 33-million gallon tank would not be sufficient to provide the additional water storage that was needed.

The District's consultant, Infrastructure Engineering Corporation (IEC), completed a planning study and alternatives analysis to maximize storage on the existing site. The study recommended construction of a 40-million gallon circular prestressed concrete tank on the site for a combined reservoir capacity of 73-million gallons.

The project was constructed in three phases: mass grading, reservoir construction and final site improvements. The reservoir was completely buried and landscaped, concealing it from the surrounding community.

Printed materials paid for by a grant from:
THE METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA

water smart LANDSCAPE

Transform Your Turf Yard into a Beautiful Water-Saving Landscape

Sign up for a FREE

WaterSmart Landscape Design Workshop

Enhance your yard's curb appeal by turning it into aWaterSmart showcase!
Taught by a local landscape expert, this 3-hour workshop will teach you:

- How to convert your turf area to a water efficient landscape
- How to select plants that will thrive in our Mediterranean climate
- How to analyze your yard, identify soil, remove turf & irrigate efficiently
- How to create a professional landscape, planting & irrigation designs ready for installation!

Monday, November 9th · 5 - 8 pm
Vallecitos Water District · 201 Vallecitos de Oro · San Marcos

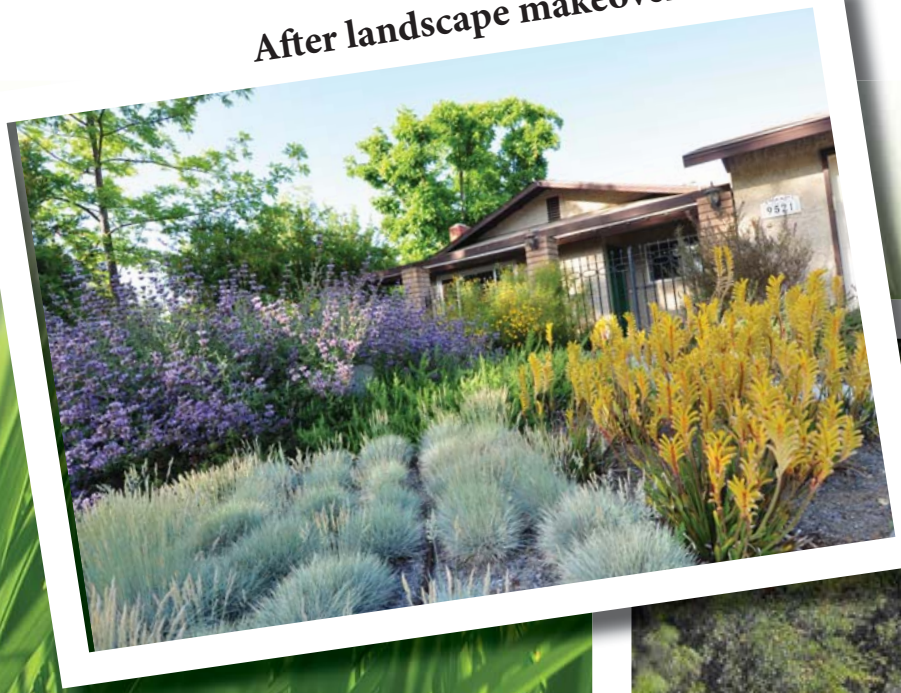
Register today at
www.vwd.org/gardenregistration

This workshop is brought to you by the Vallecitos Water District as well as the San Diego County Water Authority and its 24 member agencies.

VALLECITOS WATER DISTRICT
Water and Wastewater Specialists since 1955

San Diego County Water Authority

After landscape makeover



Before landscape makeover

VALLECITOS WATER DISTRICT
Water and Wastewater Specialists since 1955

Splash!

A Quarterly Publication of the
Water and Wastewater Specialists

Fall 2015

Drought Q and A

By now you've heard plenty about the drought, but what you may not know is exactly how the drought affects you, a customer of the Vallecitos Water District. We're answering some of your most pressing questions in this edition of Splash!

Q: What are the mandatory water conservation restrictions?

A: There are several mandatory restrictions that our customers must adhere to. Most notably, limit outdoor irrigation to 2 unassigned days per week/8 minutes per station during the months of June through October, irrigate only between 6 p.m. and 10 a.m. and check your sprinklers for runoff, which occurs when the water from the sprinklers over-sprays or drains onto hard surfaces, such as the sidewalk or gutter. You can find a complete list of drought restrictions on our website at www.vwd.org.

Q: How are violations enforced?

A: It is our goal to educate our customers to solve the problem and avoid fines whenever possible, except in extreme cases of non-compliance (i.e., multiple violations at the same address with no resolution). It is important to note that neighbor-to-neighbor complaints are not deemed enforceable and only serve to notify staff about a possible problem. When we receive a complaint, VWD staff makes every effort to investigate and verify the issue. In almost all cases, a phone call is made to the customer to educate them on the drought restriction violation and offer assistance.

Q: Aren't we getting water from the ocean soon? Won't that solve the problem for us?

A: Vallecitos will receive 3,500 acre feet (1 acre foot equals 325,851 gallons) or more than 1 billion gallons of water annually from the Carlsbad Desalination Plant. While this may seem like a lot, desalinated water will only make up about 27% of the District's total water supply. The great news is that desalinated water is sustainable, endless and drought proof. It will complement the imported water the District receives from the Colorado River and Northern California and help to take pressure off imported sources where water availability is often limited due to pumping restrictions and/or drought.

Q: I'm doing everything I can to save water, but I feel like it is just a drop in the bucket. Why not just focus conservation efforts on big water users like agriculture?

A: We thank you for all you've done to conserve and encourage you to stay the course. It is everyone's responsibility to conserve water for future generations and to find new ways to reduce their water footprint. At Vallecitos, we've also made it our mission to reach out to our highest water users and offer them personal assistance and tools that can help reduce their water use. We've been proactive in communicating with our customers when we see a problem on their landscape and have made staff available to answer irrigation and conservation questions.

Q: Wouldn't an El Niño this year solve our water situation?

A: It may help, but we aren't counting on it. Even if this El Niño condition provides precipitation locally, the key issue for state water supplies is how much precipitation – particularly snow – falls in the Sierra Nevada mountains. The ideal situation would be for repeated snow storms that provide a dense snowpack in northern California that lasts well into next summer. State reservoirs need replenishment (more than just one good winter's worth) as they are critically low. Further, it's important to remember that an El Niño was in effect last winter, and it proved to be the driest winter in state history.

continued on page 2

continued from Page 1

Q: What else can I do to save water at my home? Is there anything else you can do to help me?

A: Fortunately, there are many programs available to help during this difficult time. We encourage customers to schedule a FREE landscape irrigation audit, where a Certified Landscape Irrigation Auditor will visit your property, evaluate the efficiency of your irrigation system and check for leaks. Rebates are also available on many water conserving devices like rain barrels. For more information, visit www.vwd.org/conservation.

Q: Are we meeting our water conservation goals?

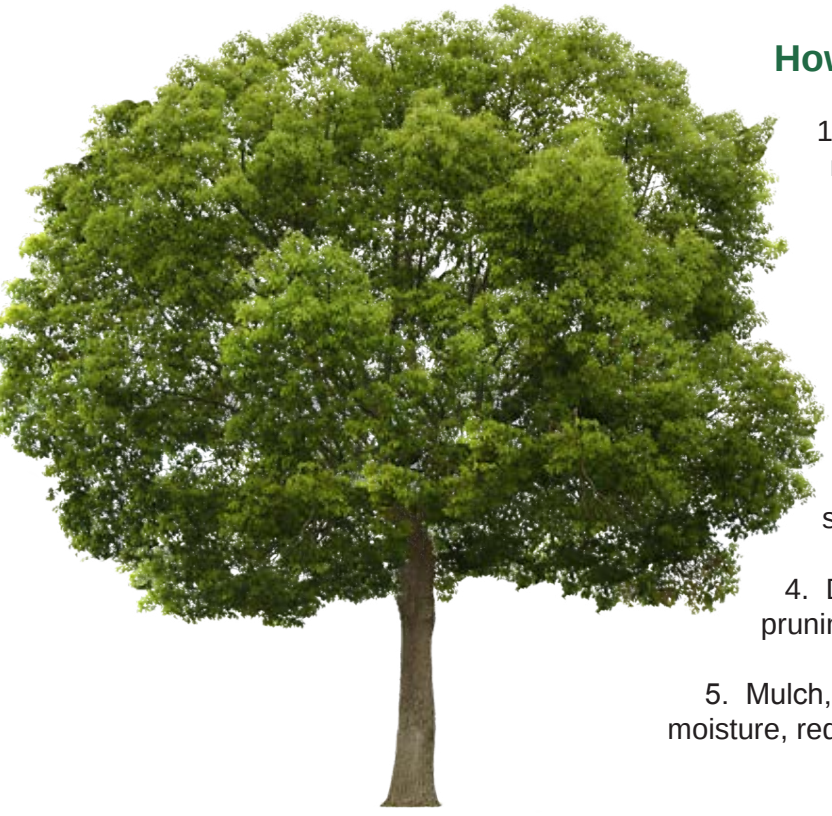
A: Yes! Our customers are doing an excellent job conserving water. The State mandated that Vallecitos reduce our usage by 24%. Our customers exceeded that goal, cutting water usage 31% in June and 38% in July.

Save Our Water and Our Trees!

As you cut back on water use during this historic drought, you may not realize the impact this will have on your landscape trees. Trees in irrigated landscapes become dependent on regular watering. When watering is reduced–and especially when it's stopped completely–trees may die.

Tree loss is a very costly problem: not only in expensive tree removal, but also in the loss of all the benefits trees provide. Your trees provide an immense range of health, energy, environmental and economic benefits:

- Trees improve air and water quality
- Trees provide shade to the landscape and reduce water needs
- Trees help keep your home cooler
- Trees slow stormwater runoff and help recharge groundwater
- Trees reduce soil erosion
- Trees add value – sometimes thousands of dollars' worth – to your home and neighborhood



How to save your trees

1. Deeply and slowly water mature trees 1 – 2 times per month with a simple soaker hose or drip system toward the edge of the tree canopy – NOT at the base of the tree. Use a Hose Faucet Timer (found at hardware stores) to prevent overwatering.

2. Young trees need 5 gallons of water 2 – 4 times per week. Create a small watering basin with a berm of dirt.

3. Shower with a bucket and use that water for your trees as long as it is free of non-biodegradable soaps or shampoos.

4. Do not over-prune trees during drought. Excessive pruning and extended drought both stress your trees.

5. Mulch, Mulch, MULCH! Four to six inches of mulch helps retain moisture, reducing water needs and protecting your trees.

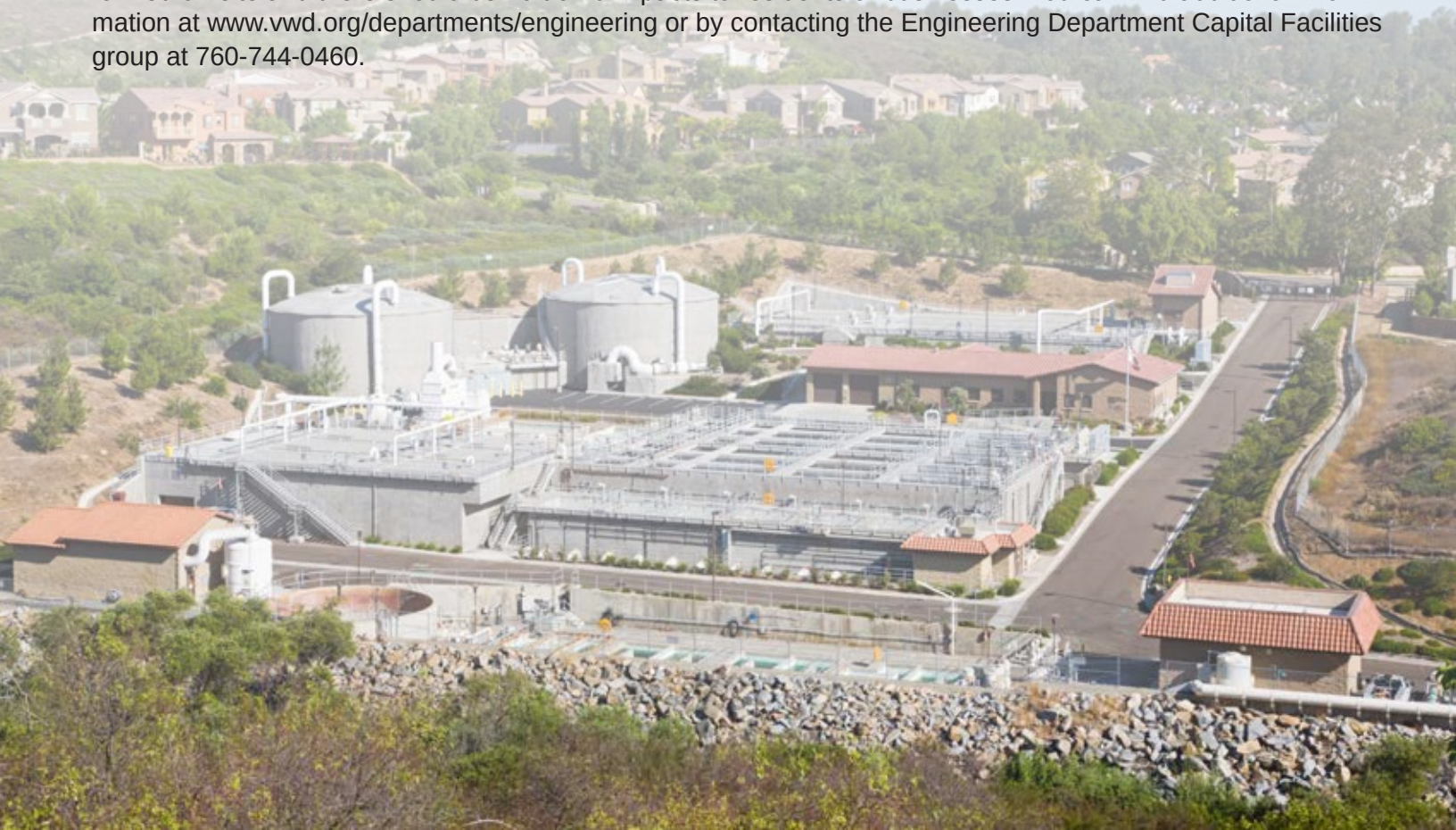
District Capital Facility Project to Increase Production of Recycled Water

Beginning in the fall of 2015, construction upgrades will begin at the Vallecitos Water District's (VWD) Lift Station No.1 located on San Marcos Boulevard. Lift Station No.1 is a vital component in the District's sewer infrastructure, pumping up to 2,000 gallons per minute (gpm) of raw sewage to the District's Meadowlark Reclamation Facility (MRF) in Carlsbad.

The MRF plant treats raw sewage from throughout the District, generating recycled water, which is sold to the Carlsbad Municipal Water District and Olivenhain Municipal Water District. Recycled water generated by VWD is used at many of the parks and roadway landscapes throughout Carlsbad as well as Legoland and the Carlsbad Flower Fields. Due to its current pumping limits, the additional sewer flowing into the lift station is bypassed to the Encina Water Pollution Control Facility in Carlsbad, located along the coast, south of Palomar Airport Road. The upgrades to the lift station will increase the amount of sewer pumped to MRF to 3,100 gpm and allow Vallecitos to increase the amount of recycled water produced.

The majority of construction costs will be funded through a Proposition 84 Implementation Grant which was approved by California voters in 2006 to fund safe drinking water, water quality and supply. The grant funds are part of the North San Diego County Regional Recycled Water Project – Phase II. Upgrades will include the replacement of pumps and piping, along with electrical system replacements and structural upgrades.

The upgrade project will begin in October 2015 and should conclude by January 2016. All work is being performed on-site and there should be no traffic impacts to residents or businesses. You can find additional information at www.vwd.org/departments/engineering or by contacting the Engineering Department Capital Facilities group at 760-744-0460.



VALLECITOS WATER DISTRICT
Water and Wastewater Specialists since 1955

201 Vallecitos de Oro
San Marcos, CA 92069
(760) 744-0460
www.vwd.org

Splash!

Splash! is a publication of information and interest to Vallecitos water and sewer customers. If you receive water or sewer services from another district, please disregard any information that does not apply to you.

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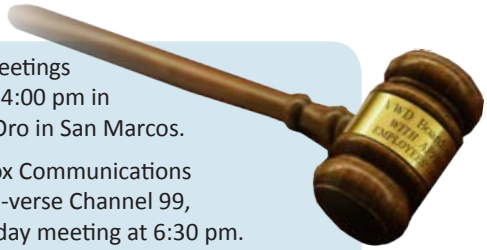
All are welcome to attend the Vallecitos Board Meetings the first and third Wednesday of each month at 4:00 pm in the Administration building—201 Vallecitos de Oro in San Marcos.

Meetings are also aired on San Marcos TV on Cox Communications Channel 19, Time Warner Channel 24 or AT&T U-verse Channel 99, which air on the Monday following the Wednesday meeting at 6:30 pm. Visit www.san-marcos.net/smtv for programming schedule.



"Like us" on Facebook or follow us on Twitter @vallecitoswater

WaterSmart Landscape Design Workshop
Saturday, October 17th
9am-12pm
Vallecitos Water District Offices

Based on the award-winning WaterSmart Landscape Makeover Series, homeowners will learn the basics of how to do a landscape makeover. Topics include soil, design, turf removal, plant selection, planning, irrigation and implementation -- the elements needed to upgrade a home from high-water-use turf to a beautiful, WaterSmart landscape. Participants will receive an introduction to the knowledge, skills and resources needed to create a WaterSmart landscape.

The objective of the program is to empower homeowners to take action to upgrade their existing water-intensive landscapes to WaterSmart standards, leading to significant water and energy savings. Information on incentives available to homeowners, including turf removal and irrigation device rebates, is included. The District secured a $2,000 grant from the California Urban Water Conservation Council that will fund classroom materials and conservation items for all participants. Space is limited, register at www.vwd.org.

BETWEEN THE PIPES

A Monthly Newsletter for Vallecitos Water District Employees

May 2015 Edition

Vallecitos Water District's
Family Milestone stories....

As the end of the school year comes to a close, we asked employees to share what some of their kids' accomplishments were this year.

Maggie Sten

I would just like to shout out how proud I am of my three kids. My oldest son Anthony is a Firefighter in the Air Force and has just received his rank of Tech Sergeant. He enlisted right after his High School Graduation in 2004.

My daughter Megan also enlisted in the Army right out of High School in 2010. Her field is Intelligence. She deployed to Afghanistan. While in Afghanistan she was wounded and received a Purple Heart. Thankfully she returned safely. She is on her way home now.

My youngest son David is a Junior in High School where he has received Top-of-his-Class Honors. He will graduate next year and is going to attend Northern Arizona University to obtain a Degree in Computer Science.

Family Milestone stories....

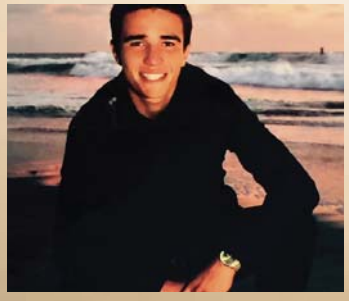
Angela Salcido

Our son Gabriel Salcido will be promoted on June 11th from 5th grade at LR Green Elementary School. He will be attending Bear Valley Middle School in Fall 2015. He is my youngest and loves to play soccer, football, and baseball. He is an incredible kid!

Mike Hill

My son Andrew is graduating from San Marcos High. He lettered in 3 sports: cross country, wrestling and track. He has a 4.3 G.P.A. He has accepted Cal Poly San Luis Obispo as his college. Not quite sure of his major yet, but engineering is in the front right now, but that can change in the next 5 minutes. I am very proud of him as he works extremely hard to get the results he wants.

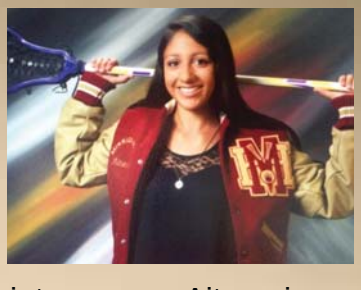
Zac Garcia



My son, Nicholas Garcia is Graduating from Mission Hills High School on Wednesday June 17, 2015. He played Football and Basketball for the Grizzlies. In his spare time he loves to wakeboard, snowboard and ride motor-cycles in the desert. He has taken two years of Fire Tech classes at Mission Hills High and is currently enrolled in the Fire Department Explorer program. He plans to advance to the Academy, and enroll in several classes at Palomar in the Fall. His mother and I are very proud of our son Nico.

Family Milestones stories....

Carlos Rivera



My daughter, Aitana C. Rivera, will graduate from Mission Hills High School, Class of 2015. She will be graduating with a 3.83 grade point average. Aitana is a member of the U-T San Diego's All Academic Team for maintaining a high grade point average and participating in Girl's Lacrosse all four years. Her plans for the future are to attend Fort Lewis College in Durango, Colorado. She has earned an academic scholarship and will be studying for her Bachelor's degree in Athletic Training. She will also be playing for the Skyhawks Women's Lacrosse team in NCAA Division II. We are very proud of her and all her accomplishments.

Carlos Fimbres

Marc Fimbres will be graduating June 4th from Great Oak High school in Temecula and will be attending Northern Arizona University in Flagstaff in the Fall. His major will be kinesiology with his goal to be a physical therapist. Here is a fun picture of when he won the Mr. Temecula contest a few weeks ago.

Arturo Alvarez

Proud parent of his oldest daughter Vivian Alvarez, who graduated from Mira Costa Community College on May 22, 2015 with an Associate Degree in Business Administration. She will be attending Cal State San Marcos to obtain her Bachelor's degree in Business with a minor in Human Resources. Vivian is the first in the Alvarez family to achieve this goal.

A community in action

Vallecitos employees are not only busy at work but are also functioning around the clock, documenting water waste as they see it. The Conservation Department has had several pictures, messages and phone calls from concerned employees who are keeping an eye out for water wasters. We appreciate the help and encourage everyone to keep reporting.

Water patrols have been in effect since May 11th. The O&M staff has been the first group on patrol, driving around in pairs from 4:30am-8:30am, looking for drought ordinance violations. So far, staff has logged over 300 instances of water waste. Almost all of the violations being found are for sprinkler runoff, which occurs when the water from the sprinklers over-sprays or drains onto hard surfaces, such as the sidewalk or gutter. O&M staff say they have encountered mostly friendly people who will stop them and ask for clarification on watering restrictions or to give them tips on who may be overwatering.

As we enter the hot summer months, the watering restrictions may change, and the situation may get more contentious. Outreach and customer service is the name of the game and our staff is the best at it! If you need any additional help dealing with a customer or have any questions, please contact the Conservation Department.

Well-received Water Academy provides new, immeasurable outreach opportunity

An additional 38 people have graduated from the District's "Water Academy" – a tour that provides customers with a behind-the-scenes look at the facilities responsible for providing water, treating wastewater and reclamation services. Overall, the event received an extremely positive response from customers, with word-of-mouth recommendations that are immeasurable. Comment cards regarding the educational experience have been returned with glowing reviews of our organization's staff and facilities. But the outreach benefits don't stop there. Our tour has garnered an impressive spread in this month's edition of SHARE San Marcos. With Vallecitos gracing the cover, our message is being shared with 35,000 San Marcos residents and businesses. Thanks to everyone for representing the District well during this event.

Zac and Eric Garcia's mother, Priscilla, attended this year's tour.

Aqua Accolades

Aqualades recognize when an employee goes above and beyond regular job duties or performance objectives. Below are Aqualades from May 2015.

All recognized and appreciated for going above and beyond while always treating customers professionally in a timely manner!

Bonnie Amick	**Jessica Ruiz**	**Veronica Flores**	**Marie Todd**
Maria Carbone	**Elissia Saavedra**	**Angela Salcido**	

Grace Cardenas — **Recognized and appreciated for going above and beyond with her willingness to jump in and help out while assisting the media crews get our conservation message out to our customers.**

Maria Carbone — **Recognized and appreciated for going above and beyond with her willingness to jump in and help out while assisting with translating the exact message we are trying to get out to our customers.**

Employee News

MISAEL GARCIA, METER SERVICE WORKER

Misael Garcia became a District employee on January 14th, as a temporary Meter Service Worker I. In addition to that, Misael worked for us for one year through a temp agency while the Meter Department was shorthanded. In April, he competed for and was selected for the full-time position, which was vacant due to a retirement. Misael is married to Rosa, and they have three children. In his free time, he enjoys playing baseball and golf, and spending time with his family.

MARIE AND JOHNATHAN TODD

Little Wee Todd will be graduating into the real world in November 2015 with a major in exhaustion and a minor in morning sickness! Future plans include spitting up, crying at all hours of the night and providing endless joy to Mom and Dad.

picture by: Cheryl Reiber

Robert Scholl

From: Dennis Lamb
Sent: Friday, March 18, 2016 8:39 PM
To: James Gumpel; Robert Scholl; Tom Scaglione
Subject: Fwd: 2015 UWMP Draft Member Agency-Level Projections
Attachments: Draft Water Authority Member Agency Level Projections 3-18-16.pdf; ATT00001.htm

Sent from my portable office

Begin forwarded message:

From: "Yamada, Robert" <ryamada@sdcwa.org>
Date: March 18, 2016 at 5:05:47 PM PDT
To: Mem.AgencyManagersList <Mem.AgencyManagersList@sdcwa.org>
Cc: "Friehauf, Dana" <DFriehauf@sdcwa.org>, "Bombardier, Tim" <tbombardier@sdcwa.org>, "Schnell, Alexi" <ASchnell@sdcwa.org>
Subject: 2015 UWMP Draft Member Agency-Level Projections

Member Agency Managers,

As part of the Water Authority's 2015 Urban Water Management Plan (UWMP) update, staff in coordination with our member agencies has developed long-range supply and demand projections for normal-year water reliability assessment required for the UWMP. The purpose of this email is to provide member agencies with the following projections for the 2020 through 2040 planning horizon:

- Draft Baseline Demand Forecast
- Conservation savings projections
- Long-Range Demand Forecast
- Member agency provided total Verifiable Local Supplies, and
- Demand on the Water Authority

Please note that the aggregated member agency baseline demand projections do not equal the regional baseline demand totals presented at the February 25, 2016 Board of Directors meeting due to the exclusion of a small increment of water demand associated with Accelerated Forecasted Growth (applied only at the regional level) and other refinements to the baseline forecast that were applied after the Board meeting.

Consistent with prior UWMP updates, our goal is to maintain consistency in planning projections between the Water Authority and its member agencies. As such, please review the attached projections and provide any comments by Friday, March 25, 2016. If you have questions on the forecasts or wish to discuss the estimates, please contact Tim Bombardier, Principal Water Resources Specialist, at (858) 522-6757.

Have a great weekend!

Bob

Bob Yamada
Director of Water Resources
San Diego County Water Authority

4677 Overland Avenue
San Diego, CA 92123
858-522-6741 (Office)

Draft Normal-Year Water Reliability Assessment Data

(Preliminary Water Authority Baseline Demand Forecast, Conservation Savings Projections and Long-Range Demand Forecast by Member Agency [1])

March 18, 2016

2020

	Baseline Demand Forecast [2,3,4]			Conservation Savings				
	(A)	(B)	(C)	(D)	(E)	(F=A+B+C-D-E)	(G)	(H=F-G)
Agency	Municipal and Industrial	Agricultural	Near-Term Annexations	Active [5]	Passive	Long-Range Demand Forecast	Verifiable Local Supplies [6]	Demand on the Water Authority
Carlsbad M.W.D.	33,548	317	-	1,552	1,398	30,915	8,074	22,841
Del Mar, City of	1,565	-	-	126	131	1,308	300	1,008
Escondido, City of	33,986	2,980	366	1,458	1,954	33,920	12,940	20,980
Fallbrook P.U.D.	8,521	4,427	-	469	475	12,004	543	11,461
Helix W.D.	37,311	-	-	2,503	3,534	31,274	3,388	27,886
Lakeside W.D.	4,988	-	5	264	619	4,110	700	3,410
Oceanside, City of	29,435	1,339	-	2,156	2,045	26,573	12,063	14,510
Olivenhain M.W.D.	20,896	1,408	-	1,317	876	20,125	3,550	16,579
Otay W.D.	44,314	41	2,903	2,111	2,437	42,710	5,670	37,050
Padre Dam M.W.D.	14,939	608	2,000	1,453	1,380	14,714	2,615	12,155
Camp Pendleton M.R.	8,720	-	-	-	-	8,720	8,500	220
Poway, City of	15,434	90	-	805	635	14,005	649	13,356
Rainbow M.W.D.	5,131	11,305	539	561	489	15,925	-	15,925
Ramona M.W.D.	7,367	1,514	-	435	654	8,058	760	7,328
Rincon Del Diablo M.W.D.	10,234	270	-	418	382	9,704	4,000	5,704
San Diego, City of	241,968	-	-	13,047	15,943	212,978	39,000	173,978
San Dieguito W.D.	7,750	121	-	580	759	6,532	3,230	3,302
Santa Fe I.D.	12,132	53	-	873	354	10,958	3,758	7,200
Sweetwater Auth.	21,197	18	-	1,089	1,936	18,190	15,700	2,490
Vallecitos W.D.	20,574	558	-	1,227	1,206	18,699	3,500	15,199
Valley Center M.W.D.	13,143	13,546	-	513	482	25,694	137	25,557
Vista I.D.	21,358	994	-	1,536	1,364	19,744	5,061	14,682
Yuima M.W.D.	514	10,305	166	99	52	10,834	7,000	3,834
Total	595,700	52,961	6,029	34,853	39,488	580,550	139,640	440,910

2025

	Baseline Demand Forecast [2,3,4]			Conservation Savings				
	(A)	(B)	(C)	(D)	(E)	(F=A+B+C-D-E)	(G)	(H=F-G)
Agency	Municipal and Industrial	Agricultural	Near-Term Annexations	Active [5]	Passive	Long-Range Demand Forecast	Verifiable Local Supplies [6]	Demand on the Water Authority
Carlsbad M.W.D.	35,135	300	-	1,279	1,990	32,155	8,074	24,081
Del Mar, City of	1,435	-	-	124	172	1,139	125	1,014
Escondido, City of	35,389	2,873	594	1,143	1,674	36,039	12,640	23,399
Fallbrook P.U.D.	11,580	4,289	-	442	853	14,574	543	14,031
Helix W.D.	40,115	-	-	2,127	5,553	32,454	3,388	29,066
Lakeside W.D.	5,237	-	5	146	511	4,585	700	3,885
Oceanside, City of	31,899	1,518	-	1,737	3,253	28,278	14,725	13,553
Olivenhain M.W.D.	22,975	1,578	-	1,251	1,505	21,798	3,150	18,648
Otay W.D.	51,771	37	2,373	1,844	4,457	48,430	5,900	42,530
Padre Dam M.W.D.	15,324	540	2,000	1,159	1,638	15,257	2,025	13,281
Camp Pendleton M.R.	3,720	-	-	-	-	3,720	3,590	130
Poway, City of	15,543	29	-	564	1,063	14,551	645	13,906
Rainbow M.W.D.	10,731	12,385	515	522	798	22,311	-	22,311
Ramona M.W.D.	9,114	1,750	-	379	1,034	9,451	755	8,696
Rincon Del Diablo M.W.D.	11,984	242	413	368	675	11,596	4,000	7,596
San Diego, City of	263,153	-	-	20,029	23,577	219,547	38,990	180,557
San Dieguito W.D.	8,299	107	-	479	1,066	6,861	3,236	3,625
Santa Fe I.D.	12,544	52	-	665	613	11,318	3,758	7,560
Sweetwater Auth.	19,408	15	-	958	2,683	15,773	9,700	6,073
Vallecitos W.D.	24,813	315	-	1,075	1,326	22,727	3,500	19,227
Valley Center M.W.D.	12,045	15,671	-	456	851	26,409	222	26,187
Vista I.D.	24,157	934	-	1,272	2,529	21,320	5,962	15,358
Yuima M.W.D.	723	12,136	156	79	171	12,771	7,000	5,771
Total	558,904	51,979	6,774	28,184	50,937	537,346	143,735	393,611

Draft Normal-Year Water Reliability Assessment Data

(Preliminary Water Authority Baseline Demand Forecast, Conservation Savings Projections and Long-Range Demand Forecast by Member Agency [1])

March 18, 2016

2030

	Baseline Demand Forecast [2,3,4]			Conservation Savings				
	(A)	(B)	(C)	(D)	(E)	(F=A+B+C-D-E)	(G)	(H=F-G)
Agency	Municipal and Industrial	Agricultural	Near-Term Annexations	Active [5]	Passive	Long-Range Demand Forecast	Verifiable Local Supplies [6]	Demand on the Water Authority
Carlsbad M.W.D.	25,806	285	-	994	2,654	22,443	8,074	14,369
Del Mar, City of	1,479	-	-	73	236	1,170	150	1,020
Escondido, City of	26,474	[illegible]	694	1,085	3,308	25,560	12,640	12,920
Fallbrook P.U.D.	11,359	[illegible]	-	423	1,033	14,063	543	13,520
Helix W.D.	41,392	-	-	1,787	7,059	32,546	3,388	29,158
Lakeside W.D.	6,020	-	5	223	1,079	4,723	700	4,023
Oceanside, City of	33,220	1,281	-	1,389	4,244	28,868	14,725	14,143
Olivenhain M.W.D.	23,706	1,332	-	885	1,976	22,175	3,150	19,025
Otay W.D.	54,979	13	2,973	1,585	5,489	50,891	6,000	44,891
Padre Dam M.W.D.	17,234	477	2,000	845	3,386	15,478	2,016	13,462
Camp Pendleton M. R.	10,960	-	-	-	-	10,960	10,730	230
Poway, City of	17,051	28	-	571	1,381	15,127	645	14,482
Rainbow M.W.D.	11,252	10,685	519	503	952	21,001	-	21,001
Ramona M.W.D.	8,376	1,711	-	339	1,259	8,489	755	7,734
Rincon Del Diablo M.W.D.	12,452	214	417	319	843	11,921	4,000	7,921
San Diego, City of	278,467	-	-	10,260	30,195	238,012	38,800	199,212
San Dieguito W.D.	8,571	94	-	380	1,335	6,950	3,232	3,718
Santa Fe I.D.	12,649	60	-	515	806	11,388	3,768	7,620
Sweetwater Auth.	25,557	14	-	903	3,535	21,133	15,700	5,433
Vallecitos W.D.	26,636	879	-	905	2,423	24,187	3,500	20,687
Valley Center M.W.D.	12,651	15,025	-	401	1,057	26,218	231	25,987
Vista I.D.	25,679	378	-	1,039	2,389	22,629	5,061	17,567
Yuima M.W.D.	986	9,976	166	50	[illegible]	10,861	7,000	3,861
Total	**692,956**	**49,897**	**6,774**	**25,474**	**77,359**	**646,794**	**144,809**	**501,985**

2035

	Baseline Demand Forecast [2,3,4]			Conservation Savings				
	(A)	(B)	(C)	(D)	(E)	(F=A+B+C-D-E)	(G)	(H=F-G)
Agency	Municipal and Industrial	Agricultural	Near-Term Annexations	Active [5]	Passive	Long-Range Demand Forecast	Verifiable Local Supplies [6]	Demand on the Water Authority
Carlsbad M.W.D.	[illegible]	[illegible]	-	951	3,049	22,722	8,074	14,648
Del Mar, City of	[illegible]		-	71	261	1,186	150	1,036
Escondido, City of	[illegible]	[illegible]	694	1,027	3,813	26,165	12,640	13,525
Fallbrook P.U.D.	[illegible]	[illegible]	-	424	1,149	14,247	543	13,704
Helix W.D.	[illegible]		-	1,656	8,241	32,938	3,388	29,550
Lakeside W.D.	[illegible]	-	5	225	1,216	4,771	700	4,071
Oceanside, City of	[illegible]	[illegible]	-	1,301	4,954	29,416	14,725	14,691
Olivenhain M.W.D.	[illegible]	[illegible]	-	858	2,290	22,482	3,150	19,332
Otay W.D.	[illegible]	-	2,973	1,538	6,040	51,701	6,200	45,501
Padre Dam M.W.D.	[illegible]	[illegible]	2,000	803	3,886	15,709	2,016	13,693
Camp Pendleton M. R.	[illegible]	-	-	-	-	10,960	10,730	230
Poway, City of	[illegible]	[illegible]	-	536	1,616	15,202	645	14,557
Rainbow M.W.D.	[illegible]	[illegible]	519	502	1,075	21,146	-	21,146
Ramona M.W.D.	[illegible]	[illegible]	-	323	1,416	8,451	755	7,696
Rincon Del Diablo M.W.D.	[illegible]	[illegible]	417	306	966	12,330	4,000	8,330
San Diego, City of	[illegible]	-	-	10,490	35,473	246,342	38,700	207,642
San Dieguito W.D.	[illegible]	[illegible]	-	358	1,502	7,038	3,232	3,806
Santa Fe I.D.	[illegible]	[illegible]	-	500	905	11,494	3,768	7,726
Sweetwater Auth.	[illegible]	12	-	860	4,334	22,856	15,700	7,156
Vallecitos W.D.	[illegible]	843	-	889	2,742	25,414	3,500	21,914
Valley Center M.W.D.	[illegible]	[illegible]	-	396	1,195	26,407	231	26,176
Vista I.D.	[illegible]	824	-	999	3,187	23,317	5,062	18,255
Yuima M.W.D.	[illegible]	[illegible]	166	50	226	10,995	7,000	3,995
Total	**[illegible]**	**48,460**	**6,774**	**25,063**	**89,539**	**663,286**	**144,909**	**518,377**

Draft Normal-Year Water Reliability Assessment Data

[Preliminary Water Authority Baseline Demand Forecast, Conservation Savings Projections and Long-Range Demand Forecast by Member Agency [1]]

March 18, 2015

2040

	Baseline Demand Forecast [2,3,4]			Conservation Savings				
	(A)	(B)	(C)	(D)	(E)	(F=A+B+C-D-E)	(G)	(H=F-G)
Agency	Municipal and Industrial	Agricultural	Near-Term Annexations	Active [5]	Passive	Long-Range Demand Forecast	Verifiable Local Supplies [6]	Demand on the Water Authority
Carlsbad M.W.D.	25,880	256	-	962	3,426	22,746	8,074	14,672
Del Mar, City of	1,547	-	-	72	285	1,190	150	1,040
Escondido, City of	28,892	2,630	694	1,047	4,299	26,870	12,640	14,230
Fallbrook P.U.D.	12,175	3,907	-	437	1,297	14,348	543	13,805
Helix W.D.	44,357	-	-	1,675	9,356	33,316	3,388	29,928
Lakeside W.D.	6,438	-	5	129	1,345	4,969	700	4,269
Oceanside, City of	36,136	1,213	-	1,327	5,556	30,366	14,725	15,641
Olivenhain M.W.D.	25,402	1,250	-	875	2,580	23,197	3,150	20,047
Otay W.D.	62,916	4	2,973	1,567	6,744	57,582	5,500	52,082
Padre Dam M.W.D.	18,756	435	2,000	817	4,350	16,064	2,016	14,048
Camp Pendleton M.B.	10,960	-	-	-	-	10,960	10,730	230
Poway, City of	13,541	37	-	541	1,845	15,679	645	15,033
Rainbow M.W.D.	12,518	10,124	519	510	1,285	22,466	-	22,466
Ramona M.W.D.	8,813	1,620	-	327	1,504	9,502	755	8,747
Rincon Del Diablo M.W.D.	13,577	165	417	314	1,065	13,179	4,000	9,178
San Diego, City of	304,553	-	-	10,721	41,725	252,145	38,600	213,545
San Dieguito W.D.	9,571	68	-	163	1,580	7,596	3,232	4,363
Santa Fe I.D.	13,435	57	-	503	1,002	12,027	3,768	8,259
Sweetwater Auth.	29,340	11	-	896	5,066	23,389	15,700	7,689
Vallecitos W.D.	32,369	831	-	526	3,063	29,201	3,500	25,701
Valley Center M.W.D.	14,224	14,150	-	408	1,333	26,585	231	26,354
Vista I.D.	27,754	796	-	1,093	3,413	24,147	5,062	19,085
Yuima M.W.D.	1,447	9,710	166	51	242	11,030	7,000	4,030
Total	760,682	47,214	6,774	25,620	103,803	686,448	145,109	541,340

Footnotes

1) Excludes small increment of demand associated with Accelerated Forecasted Growth (demand not broken out by member agency)

2) Wholesale water rate ramp assumption: 2 percent real increase 2016-2020, 1 percent real increase 2021-2025, and rate of inflation thereafter (3% percent)

3) Includes impact of historic conservation savings

4) MCB Camp Pendleton demands based on projections provided by MCBCP staff and are net of conservation savings

5) Future Active savings assumed to be implemented at 2015 activity level (except for large scale turf replacement)

6) Provided by member agencies, Verifiable supplies include: surface water, groundwater, recycled water, seawater desalination (CDP contract supplies), and potable reuse

Robert Scholl

From: Schnell, Alexi <ASchnell@sdcwa.org>
Sent: Friday, April 29, 2016 11:14 AM
To: Robert Scholl
Subject: FW: Correspondence with DWR re Multi Year Projections
Attachments: RE_ Request for Phone Conference re UWMP and multi-year projections.pdf

Rob,

As referenced in my email a few minutes ago, please find attached the email correspondence between the Water Authority and DWR regarding the selection of years used by the Water Authority in our 2015 UWMP.

Alexi

Alexi Schnell
Water Resources Specialist
San Diego County Water Authority
aschnell@sdcwa.org
(858) 522-6778

From: Schnell, Alexi
To: "Huff, Gwen@DWR"
Subject: RE: Request for Phone Conference re UWMP and multi-year projections
Date: Friday, April 15, 2016 5:07:19 PM

Gwen,

Thank you – very much. No need to meet on Tuesday.

Regards,
Alexi

From: Huff, Gwen@DWR [mailto:Gwen.Huff@water.ca.gov]
Sent: Friday, April 15, 2016 4:18 PM
To: Schnell, Alexi
Subject: RE: Request for Phone Conference re UWMP and multi-year projections

Alexi –

I was just able to speak with Peter and he says that it will be fine for San Diego to complete the tables with the years as you have calculated. Just be sure to note the actual years in the "Notes" section of the appropriate tables.

Do you still want to meet on Tuesday?

From: Schnell, Alexi [mailto:ASchnell@sdcwa.org]
Sent: Friday, April 15, 2016 3:23 PM
To: Huff, Gwen@DWR
Subject: RE: Request for Phone Conference re UWMP and multi-year projections

Gwen,

Thank you again for speaking with Tim and me earlier today. Based on availability on this end, we're hoping 11:30am will work on Tuesday, April 19th, for a discussion with you and Peter. If that isn't convenient (as it's later than the 11am time you mentioned), we can also do 1:00pm. Please let me know your preference.

Regards,
Alexi

From: Huff, Gwen@DWR [mailto:Gwen.Huff@water.ca.gov]
Sent: Friday, April 15, 2016 10:34 AM
To: Schnell, Alexi
Cc: Bombardier, Tim
Subject: RE: Request for Phone Conference re UWMP and multi-year projections

Alex –

I am available if you want to have a phone conference today. I'll call you now to see if we can set a time.

Gwen

From: Schnell, Alexi [mailto:ASchnell@sdcwa.org]
Sent: Thursday, April 14, 2016 3:46 PM
To: Huff, Gwen@DWR
Cc: Bombardier, Tim
Subject: Request for Phone Conference re UWMP and multi-year projections

Gwen,

The Water Authority would like to schedule a brief call with you to discuss the years prescribed for DWR's 2015 UWMP tables for multi-year projections (tables 7-4 and 8-4). We're looking at how this pertains to our analysis for water supply reliability and our shortage contingency analysis.

We'd like to hold this call tomorrow, Friday, April 15, if possible, and are available at any time during the day. Please let me know what would work for you.

I look forward to hearing from you.

Regards,

Alexi

Alexi Schnell

Water Resources Specialist
San Diego County Water Authority
aschnell@sdcwa.org
(858) 522-6778

Robert Scholl

From: Schnell, Alexi <ASchnell@sdcwa.org>
Sent: Friday, April 29, 2016 11:07 AM
To: Robert Scholl
Subject: RE: SDCWA 2015 Urban Water Management Plan - Member Agency Technical Review Draft

Hi Robert,

Thanks for asking about FY vs CY. The numbers I sent you are from our Annual Report and are as you thought, for **Fiscal Year 2015.**

Also...I'll forward you the email from DWR re: the discussion and direction on noting the years used.

Regards,
Alexi

From: Robert Scholl [mailto:rscholl@vwd.org]
Sent: Friday, April 29, 2016 9:16 AM
To: Schnell, Alexi
Subject: RE: SDCWA 2015 Urban Water Management Plan - Member Agency Technical Review Draft

Hi, Alexi

I think I'm following the logic for the use of years 2017-2019 for minimum water supply. We'll do the same. Just one question: the total water volumes that you listed below are for ***Fiscal Year 2015*** and not calendar year 2015, correct?

Thanks!

Robert Scholl, P.E.
Senior Engineer – Development Services
Vallecitos Water District
201 Vallecitos de Oro
San Marcos, CA 92069
(760) 744-0460

From: Schnell, Alexi [mailto:ASchnell@sdcwa.org]
Sent: Thursday, April 28, 2016 7:02 PM
To: Robert Scholl
Subject: RE: SDCWA 2015 Urban Water Management Plan - Member Agency Technical Review Draft

Hi Robert,

We're getting ready to release our Public Review Draft UWMP tomorrow, so you'll have that for an updated reference as well. To answer your question regarding water supplied to member agencies in 2015:

- Total water volume supplied to all member agencies in 2015: 533,238 AF
  - Vallecitos WD was 15,297 AF

The answer to your other question isn't quite as straightforward. Looking at DWR's Table 8-4, DWR has interpreted "next three years" to be 2016/2017/2018. The CWC 10632 states, "An estimate of the minimum water supply available during each of the next three water years…" Given that we're already well into 2016 while preparing the plan, and based on the Water Authority's selection of 2012/2013/2014 for the 2010 UWMP (pulled together in 2011), the Water Authority elected to use 2017/2018/2019 in its 2015 UWMP. The Water Authority spoke with DWR 2 weeks ago, and consistent with what the water code actually requires, DWR has agreed that the Water Authority may use the years 2017-2019. DWR asked that we simply include a note stating the years we used for our data in the notes section of the appropriate DWR standardized tables. We haven't filled out DWR Table 8-4 yet, but here's the table and explanation that we're including in our Section 11 of the Public Review Draft UWMP.

In accordance with the Act, agencies are required to estimate the minimum water supply available during each of the next three years, based on the driest three-year historic sequence, compared with a normal water year. To determine the minimum supplies potentially available to the region, the same assumptions contained in the multi dry-year analysis in **Section 9.3** were used. Table 11-5 contains the minimum estimated supplies. The minimum supplies are included in accordance with the Act. It should be noted that, based on current supply and storage conditions statewide, the Water Authority is not currently forecasting this supply scenario.

Table 11-5. Estimated Minimum Supplies without Utilization of Carryover Storage (AF)

Supplies	Average Year 2017	Single Dry Year 2017	Multiple Dry-Year Water Supply		
			2017	2018	2019
Member Agency Local Supplies[1]			72,233	71,859	69,233
Carlsbad Desalination	50,000	50,000	50,000	50,000	50,000
Water Authority QSA	180,200	180,200	180,200	210,200	240,200
Metropolitan Supplies[2]	227,343	223,560	223,560	224,400	225,120
Total	568,700	516,997	525,993	556,458	584,553

[1] Member agency local supplies include 6,000 AF of Carlsbad Desalination Plant supplies.

[2] Metropolitan supplies in single and multiple dry years are conservatively based on the Water Authority's estimated preferential rights using Metropolitan's current calculation, which the trial court invalidated, and Metropolitan has appealed. The trial court ruled Metropolitan's method under-calculates the Water Authority's preferential rights.

I hope this is helpful. Please let me know if you have any questions.

Regards,

Alexi

From: Robert Scholl [mailto:rscholl@vwd.org]
Sent: Wednesday, April 27, 2016 11:31 AM
To: Schnell, Alexi
Subject: RE: SDCWA 2015 Urban Water Management Plan - Member Agency Technical Review Draft

Hi, Alexi

I'm making good progress through the tables with the information that you've given me. I'll need to make some educated guesses on the dry-year supply allocations, as you discussed below, but I think this will get us close enough.

My next issue is with Table 8-4 of the DWR UWMP tables that deals with the minimum supply available for the next three years. Does CWA have these minimum supply figures for its service area? Also, does CWA have a total water volume that was supplied to its member agencies in 2015? With these figures, I should be able to interpolate minimum water quantities for VWD.

Thanks!

Robert Scholl, P.E.
Senior Engineer – Development Services
Vallecitos Water District
201 Vallecitos de Oro
San Marcos, CA 92069
(760) 744-0460

From: Schnell, Alexi [mailto:ASchnell@sdcwa.org]
Sent: Friday, April 15, 2016 4:54 PM
To: Robert Scholl
Subject: RE: SDCWA 2015 Urban Water Management Plan - Member Agency Technical Review Draft

Hi Robert,

Here's the info for you.

- *The base years used for average, single-dry and multiple-dry year conditions as called-out in Table 7-1 of the DWR UWMP tables.* The Water Authority used the following:
  - Base years for average – 1960-2013
  - Base year for single-dry – 2015
  - Base years for multiple-dry – 2013/14/15

I talked to Tim about the modeling and got more of an explanation as to how it's handled. It's not as simple as a percentage applied. When the model is applied for the specific scenario, say single-dry, the model substitutes the normal weather year with single-dry year weather based on temperature and precipitation. Thus lower precipitation and higher temperatures, which would drive demand up. Our tables are then showing the aggregated demand for the region, compare that to supplies (local and MWD based on preferential right), and then any remaining potential supply surplus or shortage. So there really isn't an "allocation." Does that make sense?

To do your analysis, you can look at the normal year demand for your agency, figure out what percentage VWD is of the aggregated number we show for all member agencies, and then apply that same percentage to the multi-dry and single-dry aggregated demand numbers that we present for the region.

I hope this is helpful. Let me know if you have any questions. I'll definitely be here week after next – have a wonderful vacation!

Alexi

From: Robert Scholl [mailto:rscholl@vwd.org]
Sent: Friday, April 15, 2016 3:55 PM
To: Schnell, Alexi
Subject: RE: SDCWA 2015 Urban Water Management Plan - Member Agency Technical Review Draft

Hi, Alexi

I wanted to let you know that I'll be on vacation next week, so I won't be able to talk about this until April 25th. I'll be checking e-mail occasionally next week if there are questions that you want to send my way.

I'll definitely need your help on obtaining this material. Would you like to set-up a time during the week of April 25th to discuss?

Thanks!

Robert Scholl, P.E.
Senior Engineer – Development Services
Vallecitos Water District
201 Vallecitos de Oro
San Marcos, CA 92069
(760) 744-0460

From: Schnell, Alexi [mailto:ASchnel@sdcwa.org]
Sent: Wednesday, April 13, 2016 6:05 PM
To: Robert Scholl
Subject: RE: SDCWA 2015 Urban Water Management Plan - Member Agency Technical Review Draft

Hi Robert –

I'll call you in the morning to discuss.

Alexi

From: Robert Scholl [mailto:rscholl@vwd.org]
Sent: Wednesday, April 13, 2016 3:14 PM
To: Schnell, Alexi
Subject: RE: SDCWA 2015 Urban Water Management Plan - Member Agency Technical Review Draft

Hi, Alexi

I'm trying to gather information to complete the normal, single dry and multiple dry year analyses for the Vallecitos 2015 UWMP, and I can really use your help. I'm trying to gather the figures that CWA has used in its UWMP in regards to the following:

- The base years used for average, single-dry and multiple-dry year conditions as called-out in Table 7-1 of the DWR UWMP tables
- Vallecitos Water District's single-dry year supply allocations that were assumed by CWA for 2020, 2025, 2030 and 2035
- Vallecitos Water District's multi-dry year supply allocations that were assumed by CWA for 2020, 2025, 2030 and 2035

Can you send me these numbers that CWA used in composing its UWMP?

Thanks!

Robert Scholl, P.E.
Senior Engineer – Development Services
Vallecitos Water District
201 Vallecitos de Oro
San Marcos, CA 92069

(760) 744-0460

From: Dennis Lamb
Sent: Friday, April 08, 2016 10:39 AM
To: Tom Scaglione; James Gumpel; Robert Scholl
Subject: FW: SDCWA 2015 Urban Water Management Plan - Member Agency Technical Review Draft

FYI and Review

From: Yamada, Robert [ryamada@sdcwa.org]
Sent: Thursday, April 07, 2016 7:20 PM
To: Mem_AgencyManagersList
Cc: Bombardier, Tim; Schnell, Alexi; Friehauf, Dana
Subject: SDCWA 2015 Urban Water Management Plan - Member Agency Technical Review Draft

Member Agency Managers,

The purpose of this email is to provide your agency with a technical review draft of the Water Authority's 2015 Urban Water Management Plan (Plan) for review and comment. On March 18, 2016, staff provided member agencies with data consisting of individual agency long-range demand forecasts, conservation savings projections and agency-provided local supply estimates. The draft Plan, which includes the previously distributed data, is being provided to the member agencies for their technical review prior to release of the document to the Water Authority Board of Directors and the public. An electronic copy of the draft Plan can be accessed using the link below. As this draft is intended for member agency review, please do not distribute externally.

User shared the file "Water Authority Draft 2015 UWMP 04072016.pdf" with you. It is available for download here:
https://clownfish.sdcwa.org/owncloud/public.php?service=files&t=b6113cdb851703db03c4066bd3b1ed73

Please note that we have received input from several agencies regarding the data distributed in March 2016 and will continue to work with member agencies to address these comments. However, in an effort to expedite distribution of the draft Plan, this version of the document does not reflect agencies' most recent feedback. Rest assured, the Public Review version of the Water Authority's draft Plan will incorporate these and other comments provided by member agencies. Also, please note that appendices A, B, C, G, H, J and L are not included. These documentation appendices will be included in the Public Review version. We also recognize that there is a readability issue with Appendix F. We will follow-up on Monday with a higher quality electronic version of that appendix.

This administrative draft Plan is also being provided in part to address Water Code Section 10631 (k) of the Urban Water Management Planning Act (Act). This section of the Act requires the exchange of supply and demand information between the wholesale agency and its member agencies. The draft Plan provides preliminary numbers associated with existing and planned sources of water expected to be available under average, single dry-year, and multiple dry-year weather conditions, in five-year increments for the 20-year term required under the Act. Supply projections will be finalized with adoption of the Plan by the Water Authority Board in June 2016.
The Water Authority would like to thank its member agencies for their assistance and valuable input during preparation of the draft 2015 Plan. To accurately reflect the region's overall goal for future reliability, it is important that the Plan correctly reflect member agencies' projected yields from local supplies. As such, please pay special attention to the local supply figures included in the Plan for your agency to ensure that they are consistent in timing and volumes to those included in your urban

water management plan. (Tables in Appendix F of the Plan list member agencies' local supply projects by source type) This will preserve consistency between our plans.
We welcome any comments you may have on the draft Plan by **Thursday, April 21, 2016**. This will allow staff time to incorporate comments into the Public Review draft Plan that is scheduled to be provided to the Board and the public in late April. Please submit your comments in writing to Ms. Alexi Schnell, at ASchnell@sdcwa.org.

Regards,

Bob Yamada
Director of Water Resources
San Diego County Water Authority
4677 Overland Avenue
San Diego, CA 92123
858-522-6741 (Office)

ORDINANCE NO. 162

AN ORDINANCE OF THE BOARD OF DIRECTORS OF THE VALLECITOS WATER DISTRICT REPEALING ORDINACE NO.159 AND ADOPTING A DROUGHT RESPONSE CONSERVATION PROGRAM

BE IT ORDAINED by the Board of Directors of the Vallecitos Water District as follows:

SECTION 1: DECLARATION OF NECESSITY AND INTENT OF DROUGHT MANAGEMENT PLAN

This ordinance, patterned after the San Diego County Water Authority model Ordinance, establishes regulations to be implemented during times of daclared water shortages or emergencies to conserve water, enable effective water supply planning, assure reasonable and beneficial use of water, prevent waste of water, and prevent unreasonable use of water within the Vallecitos Water District. Such actions are to ensure adequate supplies of water to meet the needs of the public, and further the public health, safety, and welfare, recognizing that water is a scarce natural resource that requires careful management. This ordinance establishes four levels of drought response actions to be implemented in times of shortage or emergency with increasing restrictions on water use in response to worsening drought or emergency conditions and decreasing available supplies.

SECTION 2: APPLICATION

(a) The provisions of this ordinance apply to any customer using water provided by the Vallecitos Water District ("District").

(b) This ordinance 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 ordinance is intanded 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.

(d) The provisions of this ordinance do not apply to use of the water from private wells or to recycled water.

(e) Nothing in this ordinance shall apply to use of water that is subject to a special supply program, such as the Metropolitan Water District of Southern California Interim Agricultural Water Program (IAWP) or the San Diego County Water Authority Special Agricultural Rate Programs. Violations of the conditions of special supply programs are subject to the penalties established under the applicable program. A person using water subject to a special supply program and other water provided by the District is subject to this ordinance in the use of the District provided other water only.

SECTION 3: DROUGHT RESPONSE LEVEL 1 – DROUGHT WATCH

This is a "Drought Watch" condition, and applies when the San Diego County Water Authority notifies the District that, due to drought or other supply reductions, there is a reasonable probability there will be supply shortages and that a voluntary consumer demand reduction of up to 10 percent is required in order to meet anticipated demands. The District General Manager shall declare the existence of a Drought Response Level 1 and implement the Level 1 voluntary conservation practices. With this alert, the District will increase public outreach and awareness and take action to encourage the Level 1 conservation practices:

(a) LEVEL 1 VOLUNTARY CONSERVATION PRACTICES

(1) Washing pavements, including sidewalks, driveways, parking lots, tennis courts, or patios (except to alleviate sanitation hazards) is prohibited.

(2) Water waste that is the direct result of inefficient landscape irrigation (runoff, low head drainage, or overspray, etc.) as well as water flows onto non-targeted areas such as adjacent properties, hardscapes, and roadways is prohibited.

(3) Only irrigate residential and commercial landscapes before10 a.m. and after 6 p.m.

(4) Use a hand-held hose equipped with a positive shut-off nozzle or bucket to irrigate landscaped areas, including trees and shrubs located on residential and commercial properties that are not watered by an automatic system.

(5) Nursery and commercial grower products may be irrigated before 10 a.m. and after 6 p.m. only. Watering with a hand-held hose equipped with a positive shutoff nozzle, bucket, or by drip/micro-irrigation system/equipment is permitted anytime. Irrigation of nursery propagation beds and the watering of livestock are also permitted anytime.

(6) Use re-circulated water to operate ornamental fountains.

(7) Wash vehicles using a bucket and hand-held hose with positive shut-off nozzle, mobile high pressure/low volume wash system, or at a commercial site that re-circulates water on site. Avoid washing during hot conditions when additional water is required due to evaporation.

(8) Serve and refill water in restaurants and other food establishments only upon request.

(9) Offer guests in hotels, motels, and other commercial lodging establishments the option of not laundering towels and linens daily.

(10) All water leaks shall be repaired within five days of notification by the District unless other arrangements are made with the General Manager.

(11) Use recycled or non-potable water for construction purposes when available and permitted for use in accordance with all local, State and Federal regulations.

SECTION 4: DROUGHT RESPONSE LEVEL 2 – DROUGHT ALERT

This is an official "Drought Alert" condition, and applies when the San Diego County Water Authority notifies the District that, due to cutbacks caused by drought or other reduction in supplies, a consumer demand reduction of up to 20 percent is necessary to have sufficient supplies to meet anticipated demand. The District Board of Directors shall declare the existence of Drought Response Level 2 condition, the allocation reduction, and implement Level 2 mandatory conservation practices. If the mandatory reduction is 10% or less, the District General Manager shall have the authority and discretion to determine the administration of the conservation practices. All District customers shall comply with conservation practices required during Level 1 Drought Watch, and shall also comply with the applicable Level 2 Drought Alert mandatory conservation practices:

(a) LEVEL 2 MANDATORY CONSERVATION PRACTICES

(1) Residential and commercial landscape irrigation is limited to no more than three assigned days per week on a schedule established by the General Manager of the District. Landscape irrigation is limited to no more than once per week, from November through May, on a schedule established by the General Manager and posted by the District. This shall not apply to commercial growers or nurseries.

(2) Irrigation, using sprinklers, is limited to no more than 10 minutes per watering station per assigned day. Systems using water-efficient devices, including but not limited to: weather based controllers, drip/micro-irrigation systems and stream rotors are excluded.

(3) Water landscaped areas, including trees and shrubs located on residential and commercial properties, not irrigated by a landscape irrigation system governed by Section 4 (a) (1), on the same schedule set forth in Section 4 (a) (1) by using a bucket, a hand-held hose with positive shut-off nozzle, or low-volume non-spray irrigation.

(4) All water leaks shall be repaired within 72 hours of notification by the District unless other arrangements are made with the District General Manager.

(5) Operation of ornamental fountains or similar decorative water features is prohibited unless re-circulated water is used.

SECTION 5: DROUGHT RESPONSE LEVEL 3 – DROUGHT CRITICAL

This is an official "Drought Critical" condition, and applies when the San Diego Water Authority notifies the District that due to increasing cutbacks caused by drought or other reduction of supplies, a consumer demand reduction of up to 40 percent is required in order to have sufficient supplies available to meet anticipated demands. The District Board of Directors shall declare the existence of a Drought Response Level 3 condition, the allocation reduction, and implement mandatory Level 3 conservation practices. All District customers shall comply with the conservation practices required during Level 1 Drought Watch, Level 2 Drought Alert, and shall also comply with Level 3 Drought Critical mandatory conservation practices:

(a) LEVEL 3 MANDATORY CONSERVATION PRACTICES

(1) Residential and commercial landscape irrigation will be limited to two assigned days per week on a schedule established by the General Manager and posted by the District. Landscape irrigation will be limited to no more than once per week, from November through May, on a schedule established by the General Manager and posted by the District. Nurseries and commercial growers shall remain exempt.

(2) Irrigation, using sprinklers, will be limited to no more than 8 minutes per watering station per assigned day. Systems using water-efficient devices, including but not limited to: weather based controllers, drip/micro-irrigation systems and stream rotors are excluded

(3) Water landscaped areas, including trees and shrubs located on residential and commercial property, not irrigated by a landscape system, governed by Section 5 (a) (1), on the same schedule set forth in Section 5 (a) (1) by bucket, hand-held hose with a positive shut-off nozzle, or low-volume non-spray irrigation.

(4) Ornamental lakes or ponds shall not be refilled, except to the extent needed to sustain aquatic life, provided that such aquatic life are of significant value and have been actively managed within the water feature prior to declaration of a drought response level under this ordinance.

(5) The filling or refilling of pools or spas is prohibited.

(6) Washing vehicles except at commercial carwashes that re-circulate water by high pressure/low volume wash systems is prohibited.

(7) All leaks shall be repaired within forty-eight hours of notification by the District unless other arrangements are made with the District General Manager.

(b) **NEW POTABLE WATER SERVICE ALLOWANCE**

Upon the declaration of a Drought Response Level 3 condition, no new potable water service shall be provided, no new temporary meters or permanent meters shall be provided or installed, and no statements of immediate ability to serve or provide potable water service (such as, will serve letters, certificates or letters of availability) shall be issued, except under the following circumstances:

(1) A valid, unexpired building permit has been issued for the property as of the date of adoption of a Drought Response Level 3 and meter capacity fees have been paid; or

(2) The project is necessary to protect the public's health, safety and welfare; or

(3) The applicant provides substantial evidence of an enforceable commitment that water demands for the project will be offset prior to the provision of a new water meter(s) to the satisfaction of the District.

(c) **WATER RESETTING/METER TURN ON**

This provision shall not be construed to preclude the resetting or turn-on of meters to provide continuation of water service or to restore service that has been interrupted for a period of one year or less.

(d) **MISCELLANEOUS PROVISIONS**

(1) Upon the declaration of a Drought Response Level 3 condition, the District will suspend consideration of water service annexations to its service area.

(2) The District may establish a water allocation for property served by the District using a method that does not penalize persons for the implementation of conservation methods or the installation of water saving devices. If the District establishes water allocation, it shall provide notice of the allocation by including it in the regular billing statement for the fee or charge or by any other mailing to the address to which the District customarily mails the billing statement for fees or charges for on-going water service. Following the effective date of the water allocation as astablished by the District, any person that uses water in excess of the allocation shall be subject to a penalty in the amount as adopted by the District Board of Directors from time to time for each billing unit of water in excess of the allocation. The penalty for excess water usage shall be cumulative to any other remedy or penalty that may be imposed for violation for this ordinance.

SECTION 6: DROUGHT RESPONSE LEVEL 4 - DROUGHT EMERGENCY CONDITION

This is an official "Drought Emergency" condition, and applies when the San Diego County Water Authority Board of Directors declares a water shortage emergency pursuant to California Water Code Section 350 and notifies the District that Level 4 requires a mandatory demand reduction of more than 40 percent in order for the District to have adequate supplies available to meet anticipated demands. The District shall declare a Drought Emergency in the manner and on the grounds provided in California Water Code Section 350. All District customers shall comply with conservation practices required during Level 1 Drought Watch, Level 2 Drought Alert, and Level 3 Drought Critical conditions and shall also comply with the Level 4 Drought Emergency mandatory conservation practices:

(a) LEVEL 4 MANDATORY CONSERVATION PRACTICES

(1) All landscape irrigation and other outdoor watering for residential and commercial customers, not including commercial growers and nurseries, is prohibited, except the minimum use necessary for:

(i) 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;

(ii) Maintenance of existing landscaping for erosion control;

(iii) Maintenance of plant materials identified to be rare or essential to the well being of rare animals.

(iv) 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 days per week according to the schedule established in Section 5 (a) (1).

(v) Watering of livestock; and

(vi) Public Works projects and actively irrigated environmental mitigation projects.

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

(b) The District may establish a water allocation for properly served by the District. If the District establishes water allocation, it shall provide notice of the allocation by including it in the regular billing statement for the fee or charge or by any other mailing to the address to which the District customarily mails the billing statement for fees or charges for on-going water service. Following the effective date of the water allocation as established by the District, any person that uses water in excess of the allocation shall be subject to a penalty in the amount as adopted by the Board of Directors from time to time for each billing unit of water in excess of the allocation. The penalty for excess water usage shall be cumulative to eny other remedy or penalty that may be imposed for violation of this ordinance.

SECTION 7: HARDSHIP VARIANCE

If, due to unique circumstances, a specific requirement of this ordinance would result in undue hardship to a customer using District water or to property upon which District water is used, that is disproportionate to the impacts to District water users generally or to a similar property or classes of water uses, then the person may apply for a variance to the requirements as provided in this Section.

(a) The variance may be granted or conditionally granted, only upon a written finding of the existence of facts demonstrating an undue hardship to a customer using District 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) An application for a Hardship Variance shall be in writing and may be accompanied by photographs, maps, drawings, and other information in support of the application.

(2) An application for a Hardship Variance shall be denied unless the General Manager finds, based on the information provided in the application, supporting documents or such additional information as may be requested, and on the water use information for the properly as shown by the records of the District, all of the following:

(i) That the variance does not constitute a grant of special privilege inconsistent with the limitation upon other District customers.

(ii) That because of special circumstances applicable to the property or its use, the strict application of this ordinance would have a disproportionate impact on the property or use that exceeds the impacts to customers generally.

(iii) That authorization 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 Ordinance and will not be detrimental to the public interest.

(iv) 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.

(b) The General Manager shall exercise approval authority and set a hearing within 10 days upon receipt of a completed application for a Hardship Variance. The General Manager shall notify the applicant of the decision to approve, conditionally approve, or deny the variance within 5 days of the hearing.

(c) A customer may appeal the decision of the General Manager by filing a request for a hearing before the District Board of Directors, at a regularly scheduled Board meeting, within 10 days of the decision. The District will provide written notice of the hearing day to the customer. At the hearing before the Board the customer may present testimony and written documentation demonstrating that the Hardship Variance is warranted in accordance with the requirements of this section. The decision of the Board of Directors shall be final.

SECTION 8: VIOLATIONS AND PENALTIES

In addition to any other remedies which the District may have for the enforcement of this Ordinance pursuant to Water Code Section 31029, any person who uses, causes to be used, or permits the use of water in violation of this ordinance is guilty of an offense punishable as provided herein. Each day that a violation of this ordinance occurs is a separate offense. Administrative fines may be levied for each violation of a provision of this ordinance as follows:

(a) **FINES**

(i) One hundred dollars ($100.00) for a first violation.

(ii) Two hundred dollars ($200.00) for a second violation of any provision of this ordinance within one year of the prior violation.

(iii) Five hundred dollars ($500.00) for each additional violation of this ordinance within one year of the prior violation.

(iv) Violation of a provision of this ordinance is subject to enforcement through installation of a flow-restricting device in the meter.

(b) Each violation of this ordinance may be prosecuted as a misdemeanor punishable by imprisonment in the county jail for not more than 30 days or by a fine not exceeding $1,000, or by both as provided in Water Code Section 377.

(c) Willful violations of the mandatory conservation measures and water use restrictions as set forth during Stage 4 Drought Emergency condition may be enforced by discontinuing service to the property at which the violation occurs as provided by Water Code Section 346.

(d) All remedies provided for herein shall be cumulative and not exclusive.

SECTION 9: EFFECTIVE DATE

This ordinance is effective immediately upon adoption or as otherwise established by State law for the Vallecitos Water District.

PASSED, APPROVED AND ADOPTED this 6th date of May, 2009, by the following vote:

AYES: FERGUSON, GENTRY, POLTL, SHELL, HANNAN
NOES:
ABSTAIN:
ABSENT:

ATTEST:

Trish Hannan, President
Board of Directors
Vallecitos Water District

William W. Rucker, Secretary
Board of Directors
Vallecitos Water District

ORDINANCE NO. 195

AN ORDINANCE OF THE BOARD OF DIRECTORS OF THE VALLECITOS WATER DISTRICT ADOPTING EMERGENCY DROUGHT CONSERVATION MEASURES

BE IT ORDAINED by the Board of Directors of the Vallecitos Water District ("District") as follows:

STATE OF CALIFORNIA DECLARATION OF WATER EMERGENCY

Whereas, on January 17, 2014, Governor Brown issued Proclamation No. 1-17-2014, declaring a state of emergency throughout the State of California due to severe drought conditions; and

Whereas, on April 1, 2015, Governor Brown issued Executive Order No. B-29-15, ("Executive Order"), directing that the State Water Resources Control Board ("Control Board") develop and impose restrictions on urban water users to achieve a statewide 25% reduction in potable urban water use; and

Whereas, the Executive Order was effective immediately upon its issuance, through February 28, 2016, and includes additional water conservation measures and mandated water conservation amounts; and

Whereas, on May 5, 2015, the Control Board adopted new regulations, to ensure compliance with the Executive Order; and

Whereas, the Control Board has mandated a 24% reduction in potable water use for the District, from 2013 demands, which includes Residential, Commercial, Industrial and Institutional potable water demands; and

Whereas, on April 14, 2015, the Metropolitan Water District of Southern California ("Metropolitan") adopted a 15% supply reduction effective July 1, 2015, to June 30, 2016, with the requirement to re-evaluate the allocation level in December 2015; and

Whereas, on February 13, 2014, the San Diego County Water Authority ("Water Authority") adopted a Level 1 – "Drought Watch" condition that included additional voluntary water conservation measures; and

Whereas, on July 24, 2014, the Water Authority adopted a Level 2 – "Drought Alert" condition that included mandatory water use restrictions, but did not define supply allocations or a potable water use reduction goal; and

Whereas, on May 14, 2015, the Water Authority adopted Level 2 – "Drought Alert" supply allocations to Municipal and Industrial (M & I) and Transitional Special

Agricultural Water Rate (TSAWR) supply allocations, for each member agency, based upon the Metropolitan supply reduction in water deliveries, effective July 1, 2015 to June 30, 2016; and

Whereas, the District has an existing Drought Response Conservation Program adopted by the Board of Directors on May 6, 2009, as Ordinance No. 162; and

Whereas, on February 19, 2014, the District followed the action of the Water Authority and declared a Level 1 "Drought Watch" which included increased public outreach and volunteer conservation practices; and

Whereas, on August 6, 2014, the District followed the action of the Water Authority and declared a Level 2 "Drought Alert" which included increased public outreach, required additional conservation practices and authorized fines for non-compliance.

Based on the foregoing, and to prevent the waste and unreasonable use of water and to promote water conservation, the Board of Directors of the District hereby finds and determines that the following emergency measures must be taken:

SECTION 1: The provisions of *Ordinance No. 162, Drought Response Level 2 – Drought Alert Section (a) Level 2 Mandatory Conservation Practices* shall remain in full force and effect and shall apply to this Emergency Declaration.

SECTION 2: Each of the following additional actions are prohibited, except where necessary to address an immediate health and safety need or to comply with a term or condition in a permit issued by a state or federal agency:

(a) The use of potable water for irrigation of ornamental turf within public street rights of ways including adjacent landscape strips.

(b) The use of potable water outside of newly constructed homes and buildings inconsistent with regulations established by the California Building Standards Commission.

(c) The application of potable water to outdoor landscaping during and after 48 hours of a measurable rain event.

(d) All leaks shall be repaired within forty-eight hours of notification by the District unless other arrangements are made with the District General Manager.

SECTION 3: To obtain the required 24% District-wide reduction in water demands, the following limitations shall apply to all outdoor irrigation, excluding qualified agriculture and commercial growers:

(a) Residential and commercial landscape irrigation will be limited to two assigned days per week between June and October on a schedule established by the District General Manager. Agriculture and commercial growers shall remain exempt.

(b) Irrigation, using sprinklers, will be limited to no more than 8 minutes per watering station per assigned day. Systems using water-efficient devices, including but not limited to, weather based controllers with drip/micro-irrigation systems and stream rotors are excluded.

SECTION 4: The reductions in demands associated with watering 2 days per week may not meet the 24% reduction requirements of the Executive Order and after July 1, 2015, the District may reduce outside irrigation use to 1 day per week as follows:

(a) Residential and commercial landscape irrigation will be limited to one assigned day per week between June and October on a schedule established by the General Manager. Nurseries and commercial growers shall remain exempt.

(b) Irrigation, using sprinklers, will be limited to no more than 8 minutes per watering station per assigned day. Systems using water-efficient devices, including but not limited to, weather based controllers with drip/micro-irrigation systems and stream rotors are excluded.

SECTION 5: VIOLATIONS AND PENALTIES

In addition to any other remedies which the District may have for the enforcement of this Ordinance pursuant to Water Code Section 31029, any person who uses, causes to be used, or permits the use of water in violation of this ordinance is guilty of an offense punishable as provided herein. Each day that a violation of this ordinance occurs is a separate offense. Administrative fines may be levied for each violation of a provision of this ordinance as follows:

(a) FINES

(i) One hundred dollars ($100.00) for a first violation.

(ii) Two hundred dollars ($200.00) for a second violation of any provision of this ordinance within one year of the prior violation.

(iii) Five hundred dollars ($500.00) for each additional violation of this ordinance within one year of the prior violation.

(iv) Violation of a provision of this ordinance is subject to enforcement through installation of a flow-restricting device in the meter.

(b) Each violation of this ordinance may be prosecuted as a misdemeanor punishable by imprisonment in the county jail for not more than 30 days or by a fine not exceeding $1,000.00 or by both as provided in Water Code Section 377.

(c) Willful violations of the mandatory conservation measures and water use restrictions as set forth during Drought Emergency conditions may be enforced by discontinuing service to the property at which the violation occurs as provided by Water Code Section 346.

(d) All remedies provided for herein shall be cumulative and not exclusive.

SECTION 6: EFFECTIVE DATE

This ordinance is effective immediately upon adoption or as otherwise established by State law for the Vallecitos Water District.

PASSED, APPROVED AND ADOPTED on this 20th day of May, 2015, by the following roll call vote:

AYES: ELITHARP, HERNANDEZ, MARTIN, EVANS
NOES: SANNELLA
ABSTAIN:
ABSENT:

Betty D. Evans, President
Board of Directors
Vallecitos Water District

ATTEST:

Dennis O. Lamb, Secretary
Board of Directors
Vallecitos Water District

AWWA Free Water Audit Software:
Reporting Worksheet

WAS v5.0

? Click to access definition
+ Click to add a comment

Water Audit Report for: Vallecitos Water District
Reporting Year: 2015 (1/2015 - 12/2015)

Please enter data in the white cells below. Where available, metered values should be used; if metered values are unavailable please estimate a value. Indicate your confidence in the accuracy of the input data by grading each component (n/a or 1-10) using the drop-down list to the left of the input cell. Hover the mouse over the cell to obtain a description of the grades

All volumes to be entered as: MILLION GALLONS (US) PER YEAR

To select the correct data grading for each input, determine the highest grade where the utility meets or exceeds all criteria for that grade and all grades below it.

Master Meter and Supply Error Adjustments

WATER SUPPLIED

<---------- Enter grading in column 'E' and 'J' ---------->

						Pcnt:	Value:	
Volume from own sources:	n/a	0.000	MG/Yr					MG/Yr
Water imported:	9	4,348.580	MG/Yr	8	0.00%			MG/Yr
Water exported:	n/a	0.000	MG/Yr					MG/Yr

Enter negative % or value for under-registration
Enter positive % or value for over-registration

WATER SUPPLIED: 4,348.580 MG/Yr

AUTHORIZED CONSUMPTION

Click here: ? for help using option buttons below

				Pcnt:	Value:	
Billed metered:	8	4,147.170	MG/Yr			
Billed unmetered:	n/a	0.000	MG/Yr			
Unbilled metered:	10	22.310	MG/Yr			
Unbilled unmetered:	5	54.357	MG/Yr	1.25%		MG/Yr

Default option selected for Unbilled unmetered - a grading of 5 is applied but not displayed

Use buttons to select percentage of water supplied **OR** value

AUTHORIZED CONSUMPTION: 4,223.837 MG/Yr

WATER LOSSES (Water Supplied - Authorized Consumption) 124.743 MG/Yr

Apparent Losses

				Pcnt:	Value:	
Unauthorized consumption:		10.871	MG/Yr	0.25%		MG/Yr

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

Customer metering inaccuracies:	8	52.778	MG/Yr	1.25%		MG/Yr
Systematic data handling errors:	8	10.368	MG/Yr	0.25%		MG/Yr

Default option selected for Systematic data handling errors - a grading of 5 is applied but not displayed

Apparent Losses: 74.018 MG/Yr

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: 50.725 MG/Yr

WATER LOSSES: 124.743 MG/Yr

NON-REVENUE WATER

NON-REVENUE WATER: 201.410 MG/Yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	9	373.0	miles
Number of active AND inactive service connections:	8	22,192	
Service connection density:		59	conn./mile main

Are customer meters typically located at the curbstop or property line? Yes

Average length of customer service line: (length of service line, beyond the property boundary, that is the responsibility of the utility)

Average length of customer service line has been set to zero and a data grading score of 10 has been applied

Average operating pressure:	9	117.4	psi

COST DATA

Total annual cost of operating water system:	9	$29,254,187	$/Year	
Customer retail unit cost (applied to Apparent Losses):	8	$7.95	$/1000 gallons (US)	
Variable production cost (applied to Real Losses):	8	$6,727.30	$/Million gallons	☐ Use Customer Retail Unit Cost to value real losses

WATER AUDIT DATA VALIDITY SCORE:

*** YOUR SCORE IS: 83 out of 100 ***

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

1: Water imported
2: Unauthorized consumption
3: Systematic data handling errors

AWWA Free Water Audit Software:
System Attributes and Performance Indicators

Water Audit Report for: Vallecitos Water District
Reporting Year: 2015 | 1/2015 - 12/2015

*** YOUR WATER AUDIT DATA VALIDITY SCORE IS: 83 out of 100 ***

System Attributes:

	Apparent Losses:	74.018	MG/Yr
+	Real Losses:	50.725	MG/Yr
=	**Water Losses:**	**124.743**	MG/Yr
?	Unavoidable Annual Real Losses (UARL):	229.11	MG/Yr
	Annual cost of Apparent Losses:	$588,440	
	Annual cost of Real Losses:	$341,243	Valued at **Variable Production Cost**

Return to Reporting Worksheet to change this assumpiton

Performance Indicators:

Financial:	Non-revenue water as percent by volume of Water Supplied:	4.6%	
	Non-revenue water as percent by cost of operating system:	4.9%	Real Losses valued at Variable Production Cost
Operational Efficiency:	Apparent Losses per service connection per day:	9.14	gallons/connection/day
	Real Losses per service connection per day:	6.26	gallons/connection/day
	Real Losses per length of main per day*:	N/A	
	Real Losses per service connection per day per psi pressure:	0.05	gallons/connection/day/psi
	From Above, Real Losses = Current Annual Real Losses (CARL):	50.73	million gallons/year
?	Infrastructure Leakage Index (ILI) [CARL/UARL]:	0.22	

* This performance indicator applies for systems with a low service connection density of less than 32 service connections/mile of pipeline

AWWA Free Water Audit Software:
User Comments

WAS v5.0

Use this worksheet to add comments or notes to explain how an input value was calculated, or to document the sources of the information used.

General Comment:	Infrastructure leakage index should probably be greater than 1, or this will raise eyebrows

Audit Item	Comment
Volume from own sources:	
Vol. from own sources: Master meter error adjustment:	
Water imported:	This includes total imports from the San Diego County Water Authority such as desalinated water from the Bud C. Lewis Treatment Plant
Water imported: master meter error adjustment:	
Water exported:	
Water exported: master meter error adjustment:	
Billed metered:	Vallecitos Water District has effectively metered 100% of its accounts with AMR well underway for over 90% of its meters. At least 95% of the District's meters are 10 years old or younger. However, some large volume meters are still 20 to 30 years old and are known to under-read.
Billed unmetered:	
Unbilled metered:	This includes Vallecitos Water District's own water usage. Usage is metered reliably and with proper priority.
Unbilled unmetered:	

Audit Item	Comment
Unauthorized consumption:	
Customer metering inaccuracies:	Ongoing meter replacement means that the District has replaced over 95% of its meters within the past 10 years. Rountine meter testing is performed for accuracy.
Systematic data handling errors:	Computerized billing system includes an array of reports that are utilized to confrim billing data and system functuality. Check are made each billing cycle to red flag suspect and zero read accounts.
Length of mains:	This figure includes 358 miles of actual water distribution mains, plus an estimated 15 miles of fire hydrant service laterals. District GIS contains all as-builted water facilities and is believed to be very accurate.
Number of active AND inactive service connections:	Well-managed computerized information management system in place to track meter status changes. Periodic field checks and system audits are conducted to verify accuracy.
Average length of customer service line:	
Average operating pressure:	Obtained by averaging the pressures at all pipeline junctions within the District's water distribution model. The District's water distribution system is composed of 26 well-managed pressure zones. Both SCADA and the water distribution model give very accurate pressure readings throughout the system.
Total annual cost of operating water system:	Electronic cost accounting system is in place and all water system costs are tracked. Data is checked and audited annually.
Customer retail unit cost (applied to Apparent Losses):	Tiered water rate structure is clearly defined by District policy and is applied reliably in billing operations. The retail unit cost given in the Reporting Worksheet represents the total water sales plus the fixed monthly Ready-to-Serve costs for the meters, all divided by the total billed metered water consumption for the year.
Variable production cost (applied to Real Losses):	Reliable electronic, industry-standard accounting system in place to track production costs. The production cost listed includes the cost of imported water from the San Diego County Water Authority plus the District's costs toward distributing this water, all divided by the total amount of water produced (imported) for the year.

AWWA Free Water Audit Software: Water Balance

WAS v5.0

Water Audit Report for:	Vallecitos Water District	
Reporting Year:	2015	1/2015 - 12/2015
Data Validity Score:	83	

Water Exported
0.000

Billed Water Exported

Own Sources
(Adjusted for known errors)
0.000

Water Supplied
4,348.580

Authorized Consumption
4,223.837

Billed Authorized Consumption
4,147.170

Billed Metered Consumption (water exported is removed)
4,147.170

Billed Unmetered Consumption
0.000

Revenue Water
4,147.170

Unbilled Authorized Consumption
76.667

Unbilled Metered Consumption
22.310

Unbilled Unmetered Consumption
54.357

Non-Revenue Water (NRW)
201.410

Water Losses
124.743

Apparent Losses
74.018

Unauthorized Consumption
10.871

Customer Metering Inaccuracies
52.778

Systematic Data Handling Errors
10.368

Real Losses
50.725

Leakage on Transmission and/or Distribution Mains
Not broken down

Leakage and Overflows at Utility's Storage Tanks
Not broken down

Leakage on Service Connections
Not broken down

Water Imported
4,348.580

AWWA Free Water Audit Software:
Dashboard

WAS v5.0

The graphic below is a visual representation of the Water Balance with bar heights propotional to the volume of the audit components

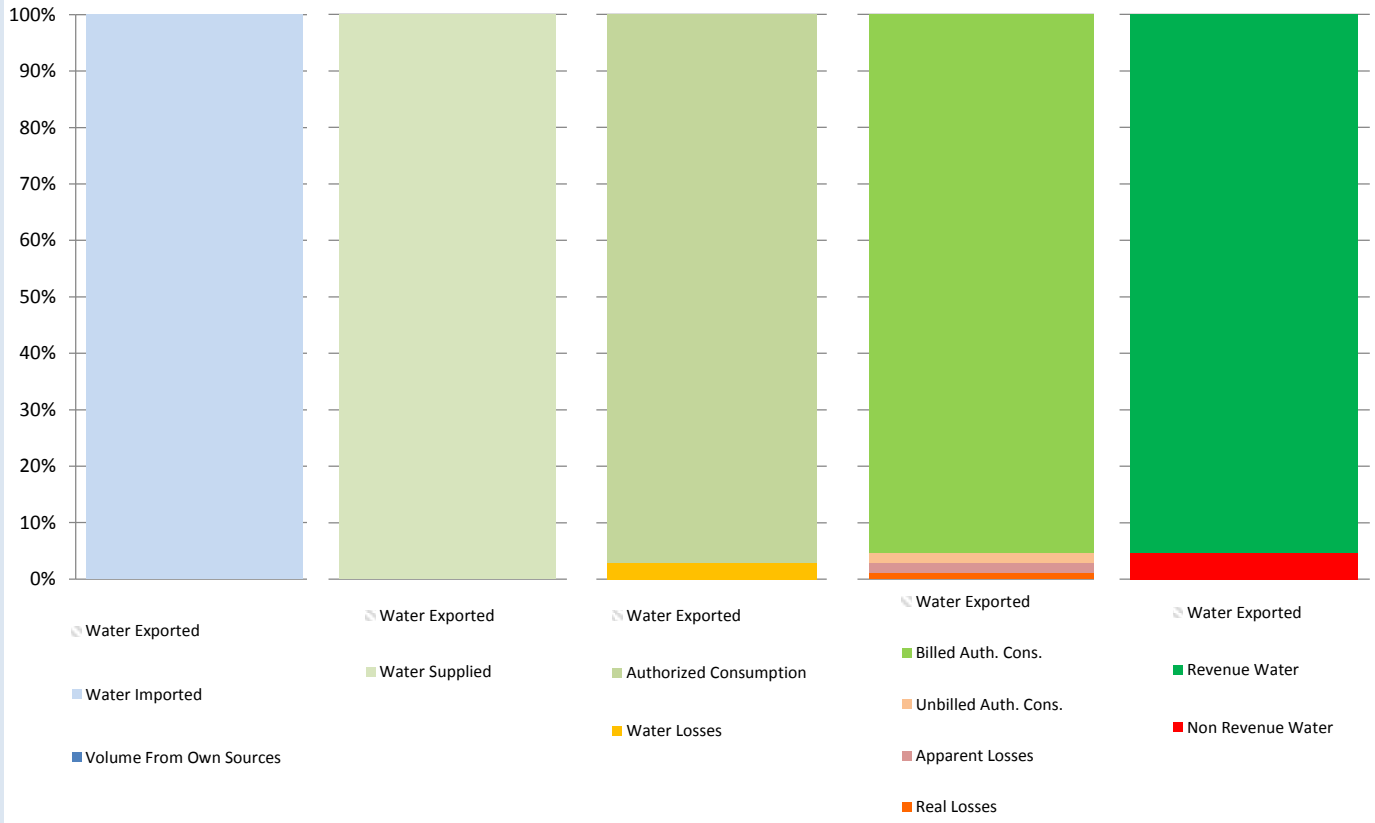
Water Audit Report for: Vallecitos Water District

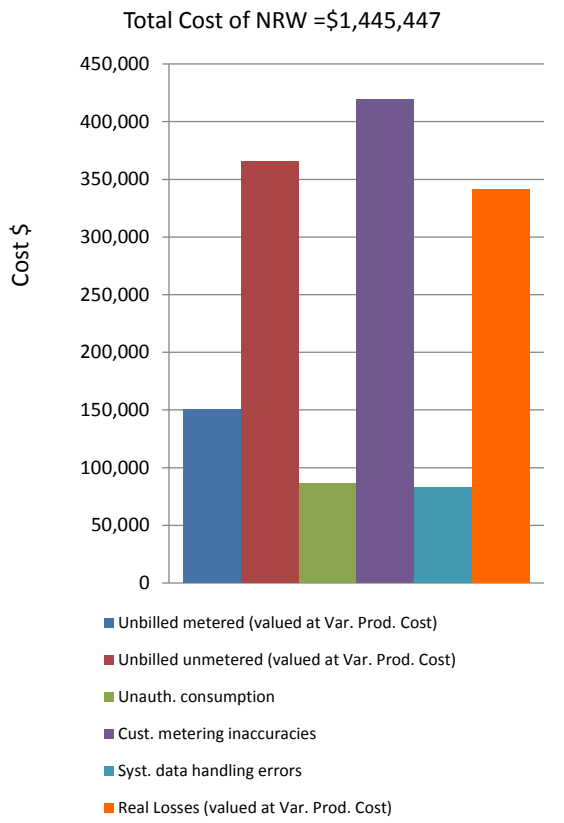
Reporting Year: 2015 | 1/2015 - 12/2015

Data Validity Score: 83

○ Show me the VOLUME of Non-Revenue Water

◉ Show me the COST of Non-Revenue Water





CUWCC BMP Retail Coverage Report 2013

Foundational Best Managemant Practices for Urban Water Efficiency

BMP 1.1 Operation Practices

ON TRACK

231 Vallecitos Water District

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

Name: Chris Robbins

Title: Water Conservation Supervisor

Email: crobbins@vwd.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.			Existing drought ordinance.
Option B Describe any water waste prevention ordinances or requirements adopted by your local jurisdiction or regulatory agencies within your service area.			
Option C Describe any documentation of support for legislation or regulations that prohibit water waste.			
Option D Describe your agency efforts to cooperate with other entities in the adoption or enforcement of local requirements consistent with this BMP.			
Option E Describe your agency support positions with respect to adoption of legislation or regulations that are consistent with this BMP.			
Option F Describe your agency efforts to support local ordinances that establish permits requirements for water efficient design in new development.			

At Least As effective As No

Exemption No

Comments:

CUWCC BMP Retail Coverage Report 2013

Foundational Best Managemant Practices for Urban Water Efficiency

BMP 1.1 Operation Practices **ON TRACK**

CUWCC BMP Coverage Report 2013

Foundational Best Management Practices For Urban Water Efficiency

BMP 1.2 Water Loss Control **NOT ON TRACK**

231 Vallecitos Water District

Completed Standard Water Audit Using AWWA Software?	Yes
AWWA File provided to CUWCC?	Yes
Copy of AWWA-WAS-v5-09152014 Vallecitos Water District October 2015 for Calendar Year 2013.xls	
AWWA Water Audit Validity Score?	75
Complete Training in AWWA Audit Method	Yes
Complete Training in Component Analysis Process?	Yes
Component Analysis?	No
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)

At Least As effective As No

Exemption No

Comments:

CUWCC BMP Coverage Report 2013

Foundational Best Management Practices For Urban Water Efficiency

BMP 1.3 Metering With Commodity

ON TRACK

231 Vallecitos Water District

Numbered Unmetered Accounts	No
Metered Accounts billed by volume of use	Yes
Number of CII Accounts with Mixed Use Meters	60
Conducted a feasibility study to assess merits of a program to provide incentives to switch mixed-use accounts to dedicated landscape meters?	Yes
Feasibility Study provided to CUWCC?	Yes

Date: 10/22/2015

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:

CUWCC BMP Coverage Report 2013

Foundational Best Management Practices For Urban Water Efficiency

BMP 1.4 Retail Conservation Pricing

Not On Track

231 Vallecitos 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	Increasing Block	Yes	11491540.56	5935795.46
Multi-Family	Increasing Block	Yes	3310060.11	2782681.21
Commercial	Increasing Block	Yes	579992.82	40411.65
Industrial	Increasing Block	Yes	317715.82	95949.86
Institutional	Increasing Block	Yes	510084.7	195115.16
Dedicated Irrigation	Increasing Block	Yes	4927610.28	973097.4
Agricultural	Increasing Block	Yes	1649039.54	195999.37
Fire Lines	Increasing Block	Yes	135400.7	463.17
Other	Increasing Block	Yes	114063.34	44063.34
			23035507.87	**10263576.62**

Calculate: V / (V + M) **69 %**

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: No

Customer Class	Rate Type	Conserving Rate?
Single-Family	Uniform	Yes
Agricultural	Uniform	Yes
Multi-Family	Allocation Based	Yes
Other	Allocation Based	Yes

At Least As effective As No

Exemption No

Comments:

CUWCC BMP Coverage Report 2013

Foundational Best Management Practices For Urban Water Efficiency

BMP 2.1 Public Outreach

ON TRACK

231 **Vallecitos 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

San Diego County Water Authority

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	4
Flyers and/or brochures (total copies), bill stuffers, messages printed on bill, information packets	12
Landscape water conservation media campaigns	4
Website	12
Total	**32**

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

Number Media Contacts	Number
News releases	5
Total	**5**

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 awareness	139000
Total Amount:	**139000**

Public Outreah Additional Programs
Landscape audits
Water Academy Tour

Description of all other Public Outreach programs

Comments:

At Least As effective As No

Exemption No 0

CUWCC BMP Coverage Report 2013

Foundational Best Management Practices For Urban Water Efficiency

BMP 2.1 Public Outreach **ON TRACK**

CUWCC BMP Coverage Report 2013

Foundational Best Management Practices For Urban Water Efficiency

BMP 2.2 School Education Programs

ON TRACK

231 Vallecitos 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

San Diego County Water Authority

Agencies Name	ID number
San Diego County Water Authority	196

Materials meet state education framework requirements? Yes

Education presentations at Jack's Pond Park; field trips to the Vallecitos Water District; Splash mobile lab visits.

Materials distributed to K-6? Yes

Conservation calendars; poster contest; school supplies with conservation messaging.

Materials distributed to 7-12 students? No (Info Only)

Annual budget for school education program: 17000.00

Description of all other water supplier education programs

Comments:

At Least As effective As No

Exemption No 0

CUWCC BMP Retail Coverage Report 2014

Foundational Best Managemant Practices for Urban Water Efficiency

BMP 1.1 Operation Practices

ON TRACK

231 Vallecitos Water District

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

Name: Chris Robbins

Title: Water Conservation Supervisor

Email: crobbins@vwd.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.	Drought Ordinance 162.pdf		Existing drought ordinance.
Option B Describe any water waste prevention ordinances or requirements adopted by your local jurisdiction or regulatory agencies within your service area.	Copy_of_Drought_Ordinance_162.pdf		
Option C Describe any documentation of support for legislation or regulations that prohibit water waste.			
Option D Describe your agency efforts to cooperate with other entities in the adoption or enforcement of local requirements consistent with this BMP.			
Option E Describe your agency support positions with respect to adoption of legislation or regulations that are consistent with this BMP.			
Option F Describe your agency efforts to support local ordinances that establish permits requirements for water efficient design in new development.			

At Least As effective As No

Exemption No

Comments:

CUWCC BMP Retail Coverage Report 2014

Foundational Best Managemant Practices for Urban Water Efficiency

BMP 1.1 Operation Practices **ON TRACK**

CUWCC BMP Coverage Report 2014

Foundational Best Management Practices For Urban Water Efficiency

BMP 1.2 Water Loss Control

NOT ON TRACK

231 Vallecitos Water District

Completed Standard Water Audit Using AWWA Software?	Yes
AWWA File provided to CUWCC?	Yes
AWWA-WAS-v5-09152014 Vallecitos Water District October 2015 for Calendar Year 2014.xls	
AWWA Water Audit Validity Score?	75
Complete Training in AWWA Audit Method	Yes
Complete Training in Component Analysis Process?	Yes
Component Analysis?	No
Repaired all leaks and breaks to the extent cost effective?	Yes
Locate and Repar unreported leaks to the extent cost effective?	No
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)

At Least As effective As No

Exemption No

Comments:

CUWCC BMP Coverage Report 2014

Foundational Best Management Practices For Urban Water Efficiency

BMP 1.3 Metering With Commodity

ON TRACK

231 Vallecitos Water District

Numbered Unmetered Accounts	No
Metered Accounts billed by volume of use	Yes
Number of CII Accounts with Mixed Use Meters	60
Conducted a feasibility study to assess merits of a program to provide incentives to switch mixed-use accounts to dedicated landscape meters?	Yes
Feasibility Study provided to CUWCC?	Yes

Date: 10/22/2015

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:

CUWCC BMP Coverage Report 2014

Foundational Best Management Practices For Urban Water Efficiency

BMP 1.4 Retail Conservation Pricing

Not On Track

231 Vallecitos 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	Increasing Block	Yes	12336057.25	6753392.73
Multi-Family	Increasing Block	Yes	3055120.73	3938807.86
Commercial	Increasing Block	Yes	2288125.85	801550.09
Industrial	Increasing Block	Yes	379727.52	96498.66
Institutional	Increasing Block	Yes	631185.1	202027.05
Dedicated Irrigation	Increasing Block	Yes	5603033.94	998592.31
Agricultural	Increasing Block	Yes	1377217.63	212056.01
Fire Lines	Increasing Block	Yes		1060.15
Other	Increasing Block	Yes	192144.48	62235.49
Other	Increasing Block	Yes	192144.48	62235.49
			26054756.98	**13128455.84**

Calculate: V / (V + M) **66 %**

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
Agricultural	Uniform	Yes
Multi-Family	Allocation Based	Yes
Other	Allocation Based	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

231 **Vallecitos 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

San Diego County Water Authority

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	4
Flyers and/or brochures (total copies), bill stuffers, messages printed on bill, information packets	12
Landscape water conservation media campaigns	4
Website	12
Total	**32**

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

Number Media Contacts	Number
News releases	5
Total	**5**

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 awareness	139000
Total Amount:	**139000**

Public Outreah Additional Programs
Landscape audits
Water Academy Tour

Description of all other Public Outreach programs

Comments:

At Least As effective As No

Exemption No 0

CUWCC BMP Coverage Report 2014

Foundational Best Management Practices For Urban Water Efficiency

BMP 2.1 Public Outreach **ON TRACK**

CUWCC BMP Coverage Report 2014

Foundational Best Management Practices For Urban Water Efficiency

BMP 2.2 School Education Programs

ON TRACK

231 Vallecitos 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

San Diego County Water Authority

Agencies Name	ID number
San Diego County Water Authority	196

Materials meet state education framework requirements? Yes

Educational presentations at Jack's Pond Park; field trips to the Vallecitos Water District; Splash Mobile Science Lab visits.

Materials distributed to K-6? Yes

Conservation calendars; poster contest; school supplies with conservation messaging.

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

Film contest.

Annual budget for school education program: 17000.00

Description of all other water supplier education programs

Splash Lab/Green Machine/Ms. Smarty Plants

Comments:

At Least As effective As No

Exemption No 0

CUWCC BMP Coverage Report 2014

231 Vallecitos Water District

GPCD in 2006: 209.71

GPCD in 2014: 163.83

GPCD Target for 2018: 198.40

Biennial GPCD Compliance Table

ON TRACK

		Target		Highest Acceptable Bound	
Year	Report	% Base	GPCD	% Base	GPCD
2010	1	96.4%	**202.20**	100%	**209.70**
2012	2	92.8%	**194.60**	96.4%	**202.20**
2014	3	89.2%	**187.10**	92.8%	**194.60**
2016	4	85.6%	**179.50**	89.2%	**187.10**
2018	5	82.0%	**198.40**	82.0%	**172.00**

COOPERATIVE AGREEMENT TO ESTABLISH AND CARRY OUT A REGIONAL ALLIANCE IN ACCORDANCE WITH PART 2.55 OF THE CALIFORNIA WATER CODE

The Olivenhain Municipal Water District ("OMWD"), the Vallecitos Water District ("VWD"), the Rincon del Diablo Municipal Water District ("RDMWD"), and the San Dieguito Water District ("SDWD"), herein referred to individually or collectively as a "Party" or the "Parties," enter into this Cooperative Agreement to Establish and Carry Out a Regional Alliance in Accordance with Part 2.55 of the California Water Code (the "Agreement"), effective June 30, 2011 (the "Effective Date").

RECITALS

A. WHEREAS, Part 2.55 was added to Division 6 of the California Water Code pursuant to SBX7-7, as enacted, under the 2009-2010 Extraordinary Session of the California Legislature (herein referred to as "SBX7-7"); and

B. WHEREAS, SBX7-7 set a goal for, among other things, a 15 percent per capita reduction in urban water use statewide by the year 2015 and a 20 percent per capita reduction in urban water use statewide by the year 2020, and establishes methods for urban retail water suppliers to determine targets for achieving increased water use efficiency by the years 2015 and 2020 in accordance with the goal of reducing per capita water use statewide; and

C. WHEREAS, SBX7-7 requires each urban retail water supplier to develop an urban water use target and an interim urban water use target, as defined therein, and authorizes urban retail water suppliers to determine and report progress toward achieving these targets on an individual or regional basis as provided in Water Code section 10608.28(a); and

D. WHEREAS, SBX7-7 recognizes, among other things, that the factors used to formulate water use efficiency targets can vary significantly from location to location based on factors including weather, patterns of urban and suburban development, and past efforts to enhance water use efficiency; and

E. WHEREAS, the California Department of Water Resources Guidebook to Assist Urban Water Suppliers to Prepare a 2010 Urban Water Management Plan (March 2011) (herein, the "DWR Guidebook") and the California Department of Water Resources Methodologies for Calculating Baseline and Compliance Urban Per Capita Water Use (For the Consistent Implementation of the Water Conservation Act of 2009) (October 1, 2010) (herein, the "DWR Methodologies") provide guidance to urban retail water suppliers for purposes of forming and carrying out a Regional Alliance in accordance with Water Code section 10608.28(a) and related provisions of SBX7-7; and

F. WHEREAS, the DWR Guidebook and the DWR Methodologies provide that urban retail water suppliers are eligible to form a Regional Alliance in accordance

with Water Code section 10608.28(a) if the suppliers meet at least one of several specified criteria, such as (1) the suppliers are recipients of water from a common wholesale water supplier, or (2) the suppliers are located within the same hydrologic region, which for this purpose refers to the 10 hydrologic regions as shown in the California Water Plan; and

G. WHEREAS, each of the Parties hereto is an urban retail water supplier and required to develop an urban water use target and an interim urban water use target pursuant to SBX7-7; and

H. WHEREAS, all of the Parties are recipients of water from a common wholesale water supplier, which for this purpose is the San Diego County Water Authority, and all of the Parties are located within the same hydrologic region, which for this purpose is the South Coast Hydrologic Region as shown in the California Water Plan, and all of the Parties share other relevant commonalities; and

I. WHEREAS, the Parties are authorized to establish and carry out a Regional Alliance pursuant to Water Code section 10608.28(a), the DWR Guidebook, and the DWR Methodologies; and

J. WHEREAS, the Parties desire and intend in entering this Agreement to cooperatively establish and carry out a Regional Alliance for the purposes of determining and reporting progress toward achieving their water use targets on a regional basis.

NOW, THEREFORE, the Parties mutually agree as follows:

1. Formation of Regional Alliance. The Parties hereby agree to form a Regional Alliance and agree to send a joint letter to the California Department of Water Resources (hereinafter "DWR") no later than July 1, 2011, informing DWR that the Parties have formed a Regional Alliance. Notwithstanding the formation of a Regional Alliance and the undertaking of activities described in this Agreement, the Parties recognize and agree that each Party will prepare, adopt, and submit its own 2010 Urban Water Management Plan and that each Party is individually responsible for compliance with the requirements of the Urban Water Management Planning Act.

2. Development of Individual Water Use Targets. Each Party agrees to develop its own urban water use target ("Individual Urban Water Use Target") and its own interim urban water use target ("Individual Interim Urban Water Use Target") using Method 1 as set forth in Water Code section 10608.20(b)(1) and as further provided in the DWR Guidebook and the DWR Methodologies. Each Party agrees to develop its Individual Urban Water Use Target and its Individual Interim Urban Water Use Target and make that target information available to each of the other Parties no later than June 30, 2011.

3. Development of Regional Alliance Water Use Targets. The Parties agree that, pursuant to a collective and cooperative effort, and using the Individual Urban Water Use Target and Individual Interim Urban Water Use Target information developed pursuant to Paragraph 2, above, the Parties will develop a regional urban water use target

("Regional Alliance Urban Water Use Target") and a regional interim urban water use target ("Regional Alliance Interim Urban Water Use Target") using Method 1 as set forth in Water Code section 10608.20(b)(1) and as further provided in the DWR Guidebook and the DWR Methodologies. The Parties agree to develop the Regional Alliance Urban Water Use Target and the Regional Alliance Interim Urban Water Use Target no later than June 30, 2011.

4. Reporting in Individual Urban Water Management Plans. The Parties agree that, in addition to other information they will otherwise include in their individual 2010 Urban Water Management Plans, each Party will report the following information in its individual 2010 Urban Water Management Plan: (A) a copy of this Agreement; (B) a copy of the letter to DWR as referenced in Paragraph 1, above; (C) an identification of any other regional alliance to which the Party may be a member; (D) its baseline gross water use and service area population; (E) its Individual Urban Water Use Target and its Individual Interim Urban Water Use Target; (F) its compliance year gross water use and service area population, as applicable; and (G) the Regional Alliance Urban Water Use Target and the Regional Alliance Interim Urban Water Use Target.

5. Regional Alliance Reporting. The Parties agree to jointly prepare and submit a Regional Alliance Report in accordance with Water Code sections 10608.40 and 10608.52 and as further provided in the DWR Guidebook and the DWR Methodologies.

6. Assessing Compliance. The Parties mutually recognize and understand the following statement as set forth in the DWR Methodologies: "The following guidelines will be used to assess compliance: If a regional alliance meets its regional target, all suppliers in the alliance will be deemed compliant. . . . If a regional alliance fails to meet its regional target, water suppliers in the alliance that meet their individual targets will be deemed compliant. Water suppliers in alliances that meet neither their individual targets nor their regional targets will be deemed noncompliant. These suppliers can still apply for grant funds if their application is accompanied by a plan that demonstrates how the funds being sought will bring them into compliance with their targets (Section 10608.56)."

7. Withdrawal or Dissolution. Any Party may withdraw without penalty from the Regional Alliance formed under this Agreement upon sixty (60) days advance written notice to the other Parties. Any such withdrawal shall become effective upon the sixtieth (60th) day after the last non-withdrawing Party receives the notice required by this Paragraph. Any Party that withdraws from the Regional Alliance recognizes and agrees that it is thereafter individually responsible for timely compliance with the urban water use target and interim urban water use target requirements of SBX7-7. In the event that any Party to this Agreement withdraws from the Regional Alliance pursuant to this Paragraph, the non-withdrawing Parties agree to jointly notify DWR of such withdrawal within thirty (30) days of the effective date of the withdrawal. Furthermore, in the event of such a withdrawal, the non-withdrawing Parties may choose to either (A) develop a revised Regional Alliance Urban Water Use Target and a revised Regional Alliance Interim Urban Water Use Target or (B) dissolve the Regional Alliance. In the event the non-withdrawing Parties choose to develop a revised Regional Alliance Urban Water Use

Target and a revised Regional Alliance Interim Urban Water Use Target, the non-withdrawing Parties agree to develop said revised targets in accordance with Paragraph 3, above, within sixty (60) days of the effective date of a withdrawal and to submit such revised information to DWR within thirty (30) days of the completion of the revised information. In the event that (A) upon a Party's withdrawal, the non-withdrawing Parties choose to dissolve the Regional Alliance, or (B) absent a Party's withdrawal, the Parties choose to dissolve the Regional Alliance, the Parties agree to memorialize their decision in writing and to jointly notify DWR of such dissolution within thirty (30) days of the dissolution decision. The Parties further recognize and agree that, in the event of a dissolution of the Regional Alliance under this Paragraph, each Party is thereafter individually responsible for timely compliance with the urban water use target and interim urban water use target requirements of SBX7-7. A dissolution of the Regional Alliance in accordance with this Paragraph shall terminate the Agreement.

8. Notice. Any notice required by this Agreement shall be in writing and shall be made by personal delivery, certified mail, or other form of delivery for which a signature acknowledging receipt is required, and shall be provided as follows:

Olivenhain Municipal Water District
General Manager
1966 Olivenhain Road
Encinitas, CA 92024

Vallecitos Water District
General Manager
201 Vallecitos de Oro
San Marcos, CA 92069

Rincon del Diablo Municipal Water District
General Manager
1920 North Iris Lane
Escondido, CA 92026-1318

San Dieguito Water District
General Manager
160 Calle Magdalena
Encinitas, CA 92024

Any Party may change its contact information for purposes of this Paragraph by providing written notice to each of the other Parties within five (5) working days of said change.

9. Costs. The Parties recognize and agree that each Party shall bear all of its own costs, fees and expenses of whatever nature that may arise out of this Agreement, including, but not limited to, staffing, consulting, legal, and any other costs related to the preparation or implementation of this Agreement.

10. Hold Harmless. Each Party agrees to hold harmless each of the other Parties and its respective public officials, employees, officers, agents, successors and assigns from any and all losses, claims, liens, demands, judgments, and causes of action of every kind and character that may arise under this Agreement. Neither this Paragraph nor any other Paragraph or provision of this Agreement is intended to create any claim or cause of action in favor of any Party or any third party against any of the Parties. The obligations of each Party under this Paragraph shall survive any Party's withdrawal from the Regional Alliance, the dissolution of the Regional Alliance, and any other termination of this Agreement.

11. Term. Except as otherwise provided in Paragraph 6, above, or Paragraph 12, below, this Agreement shall remain in effect until December 31, 2020.

12. Amendments. This Agreement shall not be amended except by written agreement of Parties.

13. Authority and Counterparts. Each Party agrees that its respective signatory below is authorized to sign and enter this Agreement on behalf of the Party. This Agreement may be executed in counterparts.

Kimberly A. Thorner — 6/16/2011

Name: Kimberly A. Thorner — Date
Olivenhain Municipal Water District

_____ — _____

Name: _____ — Date
Vallecitos Water District

_____ — _____

Name: _____ — Date
Rincon del Diablo Municipal Water District

_____ — _____

Name: _____ — Date
San Dieguito Water District

10. Hold Harmless. Each Party agrees to hold harmless each of the other Parties and its respective public officials, employees, officers, agents, successors and assigns from any and all losses, claims, liens, demands, judgments, and causes of action of every kind and character that may arise under this Agreement. Neither this Paragraph nor any other Paragraph or provision of this Agreement is intended to create any claim or cause of action in favor of any Party or any third party against any of the Parties. The obligations of each Party under this Paragraph shall survive any Party's withdrawal from the Regional Alliance, the dissolution of the Regional Alliance, and any other termination of this Agreement.

11. Term. Except as otherwise provided in Paragraph 6, above, or Paragraph 12, below, this Agreement shall remain in effect until December 31, 2020.

12. Amendments. This Agreement shall not be amended except by written agreement of Parties.

13. Authority and Counterparts. Each Party agrees that its respective signatory below is authorized to sign and enter this Agreement on behalf of the Party. This Agreement may be executed in counterparts.

_____ _____

Name: _____ Date

Olivenhain Municipal Water District

_____ 6/16/2011

Name: DENNIS O. LAMB Date

Vallecitos Water District

_____ _____

Name: _____ Date

Rincon del Diablo Municipal Water District

_____ _____

Name: _____ Date

San Dieguito Water District

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_____ _____

Name: _____ Date

Olivenhain Municipal Water District

_____ _____

Name: _____ Date

Vallecitos Water District

_____ 16 Jun 11

Name: Mitchell S. Dion Date

Rincon del Diablo Municipal Water District

_____ _____

Name: _____ Date

San Dieguito Water District

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Name: _____ Date
Olivenhain Municipal Water District

Name: _____ Date
Vallecitos Water District

Name: _____ Date
Rincon del Diablo Municipal Water District

Name: Lawrence A. Watt Date 6/17/2011
San Dieguito Water District

Vallecitos Water District Rate Schedule

Including Metropolitan Water District (MWD) and San Diego County Water Authority (CWA) Pass-Through Charges

M:\Finance\Common\Rates\Rate Schedules\Rates 2015\[RATE SHEET 2015 07-01-2015 .xlsx]2015 1-01

Commodity Charges per Unit (100 cubic feet = 748 gallons)

Effective on bills mailed after January 30, 2015 Ord. 183

Non-Drought Tier Structure in Units:

	Tier 1	Tier 2	Tier 3	Tier 4
Multi-Family per living unit *	1 - 5	limit=6 per living unit	limit=11 per unit	limit=12 per unit
5/8" and 3/4" meters	1 - 5	6 - 17	18 - 36	37 and up
1" meters	1 - 5	6 - 60	61 - 214	215 and up
1 1/2" meters	1 - 5	6 - 157	158 - 627	628 and up
2" meters	1 - 5	6 - 242	243 - 806	807 and up
Certified AG less than 3"	1 - 5	6 - 303	304 - 1,349	3,971 & up
3" and larger meters	1 - 5	6 - 1,133	1,134-3,970	3,971 up
Temporary construction meters				1 and up

* Multi-Family with 3 living units or less are billed by the meter size tier bounds.

Agricultural Rate Structure per Unit:

	Tier 1	Tier 2	Tier 3	Tier 4
Agricultural Non-Drought Rate: Certified Non-participating AO & CO category				
VWD	-	$ 1.04	$ 1.04	$ 1.04
MWD/CWA	2.62	2.62	2.62	2.62
Total	$ 2.62	$ 3.66	$ 3.66	$ 3.66
Agricultural Rate: TSAWR AS & CS category				
VWD	$ -	$ 1.04	$ 1.04	$ 1.04
MWD/CWA	1.89	1.89	1.89	1.89
Total	$ 1.89	$ 2.93	$ 2.93	$ 2.93

The first 26 units for combined agricultural / domestic accounts are charged at standard rates. All units are considered when calculating tier usage.

Non-Drought Rate Structure per Unit Effective January 1, 2015 Ord 183

Standard Commodity Rate:	Tier 1	Tier 2	Tier 3	Tier 4
VWD	$ -	$ 1.04	$ 2.25	$ 4.33
MWD/CWA	2.62	2.62	2.62	2.62
Total	$ 2.62	$ 3.66	$ 4.87	$ 6.95

Monthly Ready-to-Serve Ord. 183

Effective July 1, 2015

Meter Size	*VWD*	*MWD/CWA*	*Total Fixed*
5/8"	$ 18.42	$ 13.00	$ 31.42
3/4"	22.39	14.13	36.52
1"	31.95	23.34	55.29
1 1/2"	60.15	50.44	110.59
2"	95.87	82.24	178.11
3"	204.48	151.74	356.22
4"	319.50	233.44	552.94
6"	639.00	466.88	1,105.88
10"	1,469.70	1,079.66	2,549.36
Multiple units	11.19	7.07	18.26

Pumping Charges Effective July 1, 2015 Ord. 185

Tank -- HGL	*Zone*	*Rate per Unit*
North Twin Oaks -- 1330	Zone 01	$ 0.50
Deer Springs -- 1235	Zone 02	0.20
Coggan -- 1608	Zone 03	0.15
Coronado Hills -- 1530	Zone 04	0.06
Wulff -- 1549	Zone 05	0.58
Palos Vista -- 1500	Zone 06	0.25
San Elijo -- 1115	Zone 07	0.01
Double Peaks -- 1530	Zone 08	0.18
Meadowlark -- 815	Zone 09	0.15
High Point -- 1608	Zone 10	0.42

Monthly Sewer Service Charge Ord. 184

Effective July 1, 2015

Single Family Residential	$ 38.99
Residential Multiple-Unit	35.09
Mobile Home	31.19
Non residential flow (per 100 cu ft)	4.96
Non residential minimum charge:	
Comm/Industrial per employee	$ 3.51
Restaurant per seat	2.34
Hotel/Motel/Conv per living unit	19.50
Laundromat per machine	32.44
Schools per student	0.78
Church/Theater per seat	0.31
Minimum	24.56

Late Fees, Lock Fees, Unlock Fees, and Misc. Fees

Effective October 3, 2013 Ord. 186

10% Late Fee applies to unpaid balance 21 days from bill date.	
Notice of impending lock - 30 days from bill date	$ 25.00
Reconnection charge (lock and unlock)	$ 150.00
Additional fee: After business hours unlock	$ 75.00
Account activation Fee	$ 10.00
Account Deposit	$ 150.00
Fire Service Line Effective October 3, 2013 Ord. 183	
Per service diameter inch size per month	$ 5.87
Temp. Construction Meter Effective October 3, 2013	
Per month Ord. 183	$ 204.48
Deposit required for construction meters and refunded, less an outstanding accrued charges when returned in good working order.	
Backflow Administration Effective October 3, 2013 Ord. 186	
Per month for services requiring backflow prevention	$ 2.50

UWMP Checklist Arranged by Subject

CWC Section	UWMP Requirement	Subject	Guidebook Location	UWMP Location
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 2-3 & Appendix A**
10631(a)	Describe the water supplier service area.	System Description	Section 3.1	**Pages 3-2 to 3-3**
10631(a)	Describe the climate of the service area of the supplier.	System Description	Section 3.3	**Page 3-1**
10631(a)	Provide population projections for 2020, 2025, 2030, and 2035.	System Description	Section 3.4	**Page 3-2**
10631(a)	Describe other demographic factors affecting the supplier's water management planning.	System Description	Section 3.4	**Page 3-2**
10631(a)	Indicate the current population of the service area.	System Description and Baselines and Targets	Sections 3.4 and 5.4	**Page 3-2**
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 to 4-5**
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 4-5**
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 4-6**
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 5-8 to 5-9**

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 to 5-10**
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 5-8**
10608.24(a)	Retail suppliers shall meet their interim target by December 31, 2015.	Baselines and Targets	Section 5.8 and App E	**Page 5-10**
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 5-10**
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	**Pages 5-1 to 5-9**
10631(b)	Identify and quantify the existing and planned sources of water available for 2015, 2020, 2025, 2030, and 2035.	System Supplies	Chapter 6	**Pages 6-17 to 6-19**
10631(b)	Indicate whether groundwater is an existing or planned source of water available to the supplier.	System Supplies	Section 6.2	**Pages 6-5 to 6-6**
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	**Pages 6-5 to 6-6**
10631(b)(2)	Describe the groundwater basin.	System Supplies	Section 6.2.1	**Pages 6-5 to 6-6**
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	**Page 6-6**

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	**Pages 6-5 to 6-6**
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	**Page 6-5**
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	**Page 6-6**
10631(d)	Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis.	System Supplies	Section 6.7	**Pages 6-13 to 6-15**
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	**Pages 6-16 to 6-19**
10631(h)	Describe desalinated water project opportunities for long-term supply.	System Supplies	Section 6.6	**Page 6-13**
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 2-3 & Appendix D**
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, groundwater, and planning agencies that operate within the supplier's service area.	System Supplies (Recycled Water)	Section 6.5.1	**Pages 6-6 to 6-7**
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	**Pages 6-8 to 6-10**
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 6-10**
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 6-7**

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	**Pages 6-10 to 6-13**
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	**Pages 6-10 to 6-13**
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	**Pages 6-10 to 6-13**
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	**Pages 6-10 to 6-13**
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	**Pages 6-16 to 6-17 & Pages 9-1 to 9-13**
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**
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	**Pages 7-2 to 7-5**
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	**N/A**
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 7-1**
10635(a)	Assess the water supply reliability during normal, dry, and multiple dry water years by comparing the total water supply sources available to the water supplier with the total projected water use over the next 20 years.	Water Supply Reliability Assessment	Section 7.3	**Pages 7-2 to 7-5**
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	**Pages 8-1 to 8-2**
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	**Pages 8-9 to 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	**Pages 8-8 to 8-9**
10632(a)(4)	Identify mandatory prohibitions against specific water use practices during water shortages.	Water Shortage Contingency Planning	Section 8.2	**Pages 8-2 to 8-4**
10632(a)(5)	Specify consumption reduction methods in the most restrictive stages.	Water Shortage Contingency Planning	Section 8.4	**Pages 8-5 to 8-6**
10632(a)(6)	Indicated penalties or charges for excessive use, where applicable.	Water Shortage Contingency Planning	Section 8.3	**Page 8-4**
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	**Pages 8-7 to 8-8**
10632(a)(8)	Provide a draft water shortage contingency resolution or ordinance.	Water Shortage Contingency Planning	Section 8.7	**Appendix E**
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 8-7**
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	**Pages 9-1 to 9-13**
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	**Page 9-14 & Appendix G**
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 & Appendix B**
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	**Pages 10-1 to 10-2 & Appendices A & B**
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 & Appendix A**
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 & Appendix B**
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 & Appendix B**
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 10-2 & Appendix B**