

Infrastructure

ENGINEERING CORPORATION

2015 Urban Water Management Plan (UWMP)

FINAL

Prepared for:

San Dieguito Water District
160 Calle Magdalena
Encinitas, CA 92024

July 26, 2016

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Chapter 1. Introduction and Overview

This Chapter presents an introductory discussion of the District's UWMP and presents background information on the specifics of the California Water Code (CWC) and the requirements of the UWMP Act.

1.1. Background and Purpose

The San Dieguito Water District (District) provides potable and recycled water to approximately 37,000 people in the communities of Leucadia, Old Encinitas, Cardiff, and portions of New Encinitas. The District is a subsidiary district of the City of Encinitas, and the City Council serves as the Board of Directors for the District.

The District is bordered on the north by the Carlsbad Municipal Water District, on the east by the Olivenhain Municipal Water District and on the south by the Santa Fe Irrigation District. These boundaries, and the District's service area, are shown in Figure 1.

The District recognizes that water planning has become increasingly important as the region is experiencing an extended drought and water resources have become limited. As such, the District has prepared this 2015 Urban Water Management Plan (UWMP) in accordance with the California Urban Water Management Planning Act of 1983 (UWMP Act).

1.2. Urban Water Management Planning and the California Water Code

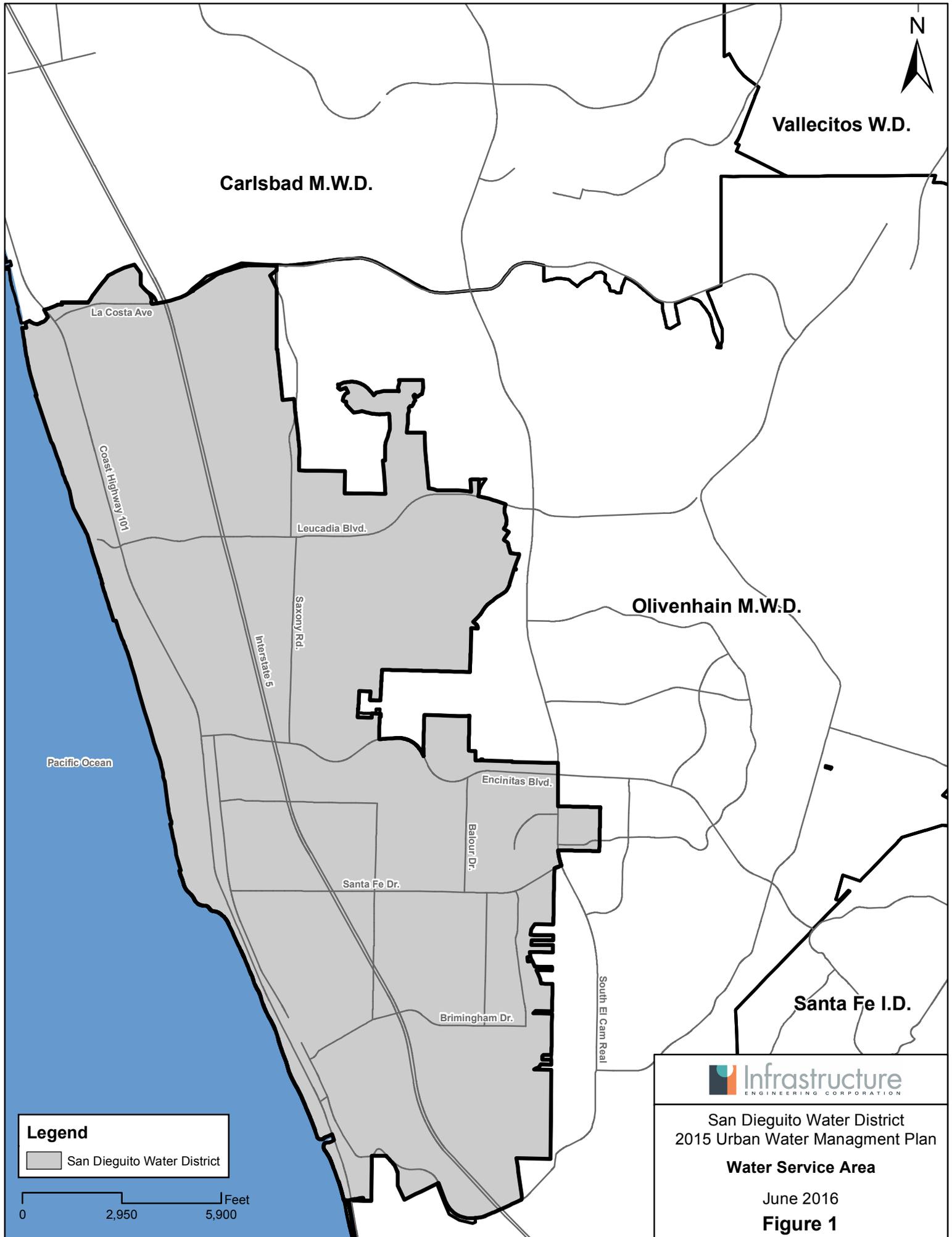
Recognizing that the water resources of the State are limited, in 1983 the California legislature enacted the Urban Water Management Planning Act (Water Code Sections 10610 - 10656). The UWMP Act requires that every urban water supplier that provides water to 3,000 or more customers, or that provides over 3,000 acre-feet of water annually, shall prepare and adopt an Urban Water Management Plan (UWMP). The UWMP Act requires that each urban water supplier update its plan at least every five years on or before December 31, in years ending with zero and five. An UWMP is required in order for a water supplier to be eligible for Department of Water Resources (DWR) administered water management grant or loan and drought assistance. A properly prepared and presented UWMP facilitates the development of and improves the quality of subsequent Water Supply Assessment and Verification Reports.

1.2.1. Urban Water Management Planning Act of 1983

The UWMP Act requires water agencies, such as the District, to prepare an UWMP to provide a framework for long-term water planning and to develop a long-term water resource plan to ensure adequate water supply for both existing and future demands.

The UWMP Act requires urban water suppliers report and analyze:

- Water demands and system uses



Vallecitos W.D.

Carlsbad M.W.D.

La Costa Ave

Coast Highway 101

Leucadia Blvd.

Interstate 5

Saxony Rd.

Olivenhain M.W.D.

Pacific Ocean

Encinitas Blvd.

Balour Dr.

Santa Fe Dr.

Birmingham Dr.

South El Cam Real

Santa Fe I.D.

Legend

San Diegouito Water District



San Diegouito Water District
2015 Urban Water Management Plan

Water Service Area

June 2016

Figure 1

- Water use baselines and targets
- Water supplies
- Water supply reliability
- Water shortage contingency planning
- Demand management measures

1.2.2. Applicable Changes to the Water Code since 2010 UWMPs

There are a number of changes that have been made to the CWC since the development and submittal of 2010 UWMPs occurred. These changes are summarized below:

- Demand Management Measures CWC Section 10631 (f) (1) and (2) Assembly Bill 2067, 2014
- Submittal Date CWC Section 10621 (d) Assembly Bill 2067, 2014
- Electronic Submittal CWC Section 10644 (a) (2) Senate Bill 1420, 2014
- Standardized Forms CWC Section 10644 (a) (2) Senate Bill 1420, 2014
- Water Loss CWC Section 10631 (e) (1) (J) and (e) (3) (A) and (B) Senate Bill 1420, 2014
- Estimating Future Water Savings CWC Section 10631 (e) (4) Senate Bill 1420, 2014
- Voluntary Reporting of Energy Intensity CWC Section 10631.2 (a) and (b) Senate Bill 1036
- Defining Water Features CWC Section 10632 (b) Assembly Bill 2409, 2010

1.2.3. Water Conservation Act of 2009 (SB X7-7)

Starting in 2016, urban water suppliers are required to comply with the water conservation requirements of SB X7-7 in order to be eligible for State water grants or loans. The specific requirements of the Water Conservation Act are addressed in Chapter 5 – Baselines and Targets.

1.3. Urban Water Management Plans in Relation to Other Efforts

The California Department of Water Resources (DWR) recommends that other planning efforts and associated planning documents be incorporated into the 2015 UWMPs, as UWMPs are greatly enhanced with the inclusion of other such planning efforts. The following documents were used in the preparation of the District's 2015 UWMP:

- Potable Reuse Feasibility Study, March 2016

- North San Diego County Regional Recycled Water Project Regional Recycled Water Facilities Plan, May 2012
- 2010 UWMP, June 2011
- Water System Master Plan, June 2010
- Leucadia Wastewater District Asset Management Plan, January 2013
- Cardiff and Encinitas Sewer Master Plan Update, April 2011

1.4. Recommended UWMP Organization

The DWR has released the 2015 Urban Water Management Plans Guidebook for Urban Water Suppliers (Guidebook), dated March 2016, to assist urban water suppliers with meeting the requirements of the UWMP Act.

While it is not required that urban water suppliers follow the Guidebook in the preparation of their 2015 UWMPs, it is recommended by the DWR. The DWR groups the UWMP Act requirements by topic and presents them in a suggested order that may be considered in the development of an UWMP. However, while the UWMP preparation is not required to follow the Guidebook, it should be noted that the use of the DWRs standard Tables is required.

The 2015 UWMP presented herein follows the Guidebook and uses the Guidebook's suggested Chapters as follows:

- Chapter 1 - Introduction and Overview
- Chapter 2 - Plan Preparation
- Chapter 3 - System Description
- Chapter 4 - System Water Use
- Chapter 5 - Baselines and Targets
- Chapter 6 - System Supplies
- Chapter 7 - Water Supply Reliability
- Chapter 8 - Water Shortage Contingency Planning
- Chapter 9 - Demand Management Measures
- Chapter 10 - Plan Adoption, Submittal, and Implementation

1.5. UWMPs and Grant or Loan Eligibility

CWC 10608.56

(a) On and after July 1, 2016, an urban retail water supplier is not eligible for a water grant or loan awarded or administered by the state unless the supplier complies with this part.

(c) Notwithstanding subdivision (a), the department shall determine that an urban retail water supplier is eligible for a water grant or loan even though the supplier has not met the per capita reductions required pursuant to Section 10608.24, if the urban retail water supplier has submitted to the department for approval a schedule, financing plan, and budget, to be included in the grant or loan agreement, for achieving the per capita reductions. The supplier may request grant or loan funds to achieve the per capita reductions to the extent the request is consistent with the eligibility requirements applicable to the water funds.

(e) Notwithstanding subdivision (a), the department shall determine that an urban retail water supplier is eligible for a water grant or loan even though the supplier has not met the per capita reductions required pursuant to Section 10608.24, if the urban retail water supplier has submitted to the department for approval documentation demonstrating that its entire service area qualifies as a disadvantaged community.

(f) The department shall not deny eligibility to an urban retail water supplier or agricultural water supplier in compliance with the requirements of this part and Part 2.8 (commencing with Section 10800), that is participating in a multiagency water project, or an integrated regional water management plan, developed pursuant to Section 75026 of the Public Resources Code, solely on the basis that one or more of the agencies participating in the project or plan is not implementing all of the requirements of this part or Part 2.8 (commencing with Section 10800).

CCR Section 596.1

(b) (2) “disadvantaged community” means a community with an annual median household income that is less than 80 percent of the statewide annual median household income.

In order for an urban water supplier to be eligible for any water management grant or loan administered by the DWR, they must have a current UWMP on file that has met the requirements of the UWMP Act.

An UWMP may also be required for other State funding programs, depending on the specific requirements of each funding program.

In addition, changes to California law require that beginning in 2016, urban retail water suppliers must comply with water conservation requirements established by the Water Conservation Act of 2009 in order to be eligible for State water grants or loans.

For 2015 UWMPs, this means that a retail water agency must meet its 2015 Interim Urban Water Use Target (presented in Chapter 5) and report compliance in the 2015 UWMP.

1.6. DWR Contact Information

Following is the contact information for DWR UWMP Staff:

Table 1-1: DWR Contact Information			
Region	DWR UWMP Staff	Phone	Email
Statewide	Gwen Huff	(916) 651-9672	Gwen.Huff@water.ca.gov
Northern	Jessica Salinas-Brown	(530) 529-7355	Jessica.SalinasBrown@water.ca.gov
North Central	Kim Rosmaier	(916) 376-9660	Kim.Rosmaier@water.ca.gov
South Central	Luis Avila	(559) 230-3364	Luis.Avila@water.ca.gov
Southern	Sergio Fierro	(818) 500-1645	Sergio.Fierro@water.ca.gov

Chapter 2. Plan Preparation

This Chapter contains information relating to the preparation of the District's 2015 UWMP and includes information relating to both individual and regional compliance, regional coordination, fiscal or calendar year units of measure for reporting, and general coordination and outreach.

This Chapter includes the following sections:

- Basis for Preparing a Plan
- Regional Planning
- Individual or Regional Planning and Compliance
- Fiscal or Calendar Year and Units of Measure
- Coordination and Outreach

2.1. Basis for Preparing a Plan

CWC 10617

“Urban water supplier” means a supplier, either publicly or privately owned, providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually. An urban water supplier includes a supplier or contractor for water, regardless of the basis of right, which distributes or sells for ultimate resale to customers. This part applies only to water supplied from public water systems...

CWC 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.

CWC 10621

(a) Each urban water supplier shall update its plan at least once every five years on or before December 31, in years ending in five and zero, except as provided in subdivision (d).

(d) Each urban water supplier shall update and submit its 2015 plan to the department by July 1, 2016.

In accordance with the CWC, urban water suppliers with 3,000 or more customers or supplying more than 3,000 acre-feet per year of water must prepare an UWMP and update its plan once every five years. CWC 10621 (d) establishes a deadline of 2015 UWMP submittal to the DWR by July 1, 2016.

As the District currently serves approximately 37,000 people through roughly 11,000 meters and supplies over 6,000 acre-feet per year of potable water, they are required to prepare a 2015 UWMP that meets the requirements of the UWMP Act.

The District retained the services of Infrastructure Engineering Corporation (IEC) to assist in the development of this 2015 UWMP.

We wish to acknowledge the contribution of the following individuals for their participation, insight, and direction in the preparation of this 2015 UWMP: Mr. Bill O'Donnell, District General Manager and Mr. Blair Knoll, District Sr. Civil Engineer.

2.1.1. Public Water Systems

CWC 10644

(a) (2) The plan, or amendments to the plan, submitted to the department ... shall include any standardized forms, tables, or displays specified by the department.

CWC 10608.52

(a) The department, in consultation with the board, the California Bay-Delta Authority or its successor agency, the State Department of Public Health, and the Public Utilities Commission, shall develop a single standardized water use reporting form to meet the water use information needs of each agency, including the needs of urban water suppliers that elect to determine and report progress toward achieving targets on a regional basis as provided in subdivision (a) of Section 10608.28.

(b) At a minimum, the form shall be developed to accommodate information sufficient to assess an urban water supplier's compliance with conservation targets pursuant to Section 10608.24... The form shall accommodate reporting by urban water suppliers on an individual or regional basis as provided in subdivision (a) of Section 10608.28.

California Health and Safety Code 116275

(h) "Public Water System" means a system for the provision of water for human consumption through pipes or other constructed conveyances that has 15 or more service connections or regularly serves at least 25 individuals daily at least 60 days out of the year.

Public Water Systems (PWS) are defined as systems that provide drinking water for human consumption.

The District is a PWS, which is regulated by the State Water Resources Control Board, Division of Drinking Water. The District's Public Water System Number is CA3710021.

Table 2-1: Retail Only: Public Water Systems			
Public Water System Number	Public Water System Name	Number of Municipal Connections 2015	Volume of Water Supplied 2015
CA3710021	SAN DIEGUITO WD	11,704	6,109
TOTAL		11,704	6,109
NOTES: PWS Number and Name from the State Electronic Annual Reporting System			

The District submits Electronic Annual Reports (EARs) to the State’s Electronic Annual Reporting System each year. The 2015 EAR is provided as Appendix A.

2.2. Regional Planning

Developing a UWMP as a cooperative effort can have a number of benefits. As a member of the San Diego County Water Authority (SDWCA), the District’s water use targets developed as part of this 2015 UWMP will support the SDCWA’s 2015 regional UWMP planning effort.

Additionally, the District has decided to participate in a regional alliance to address the requirements of SBX7-7.

The District, along with Vallecitos Water District, Olivenhain Municipal Water District, and Rincon del Diablo Municipal Water District have formed a regional alliance pursuant to CWC § 10608.28(a), the DWR Guidebook, and the DWR Methodologies to cooperatively determine and report progress toward achieving their water use targets on a regional basis. All of these members are recipients of water from a common wholesale water supplier, in this case SDCWA, and all of the members are located within the South Coast Hydrologic Region as shown in the California Water Plan. The members of this regional alliance are depicted in Figure 2.

2.3. Individual or Regional Planning and Compliance

Regional Planning can provide many benefits such as reduced preparation costs and regional cross jurisdictional integrated water management. Agencies may choose from the following reporting methods:

- Individual Reporting

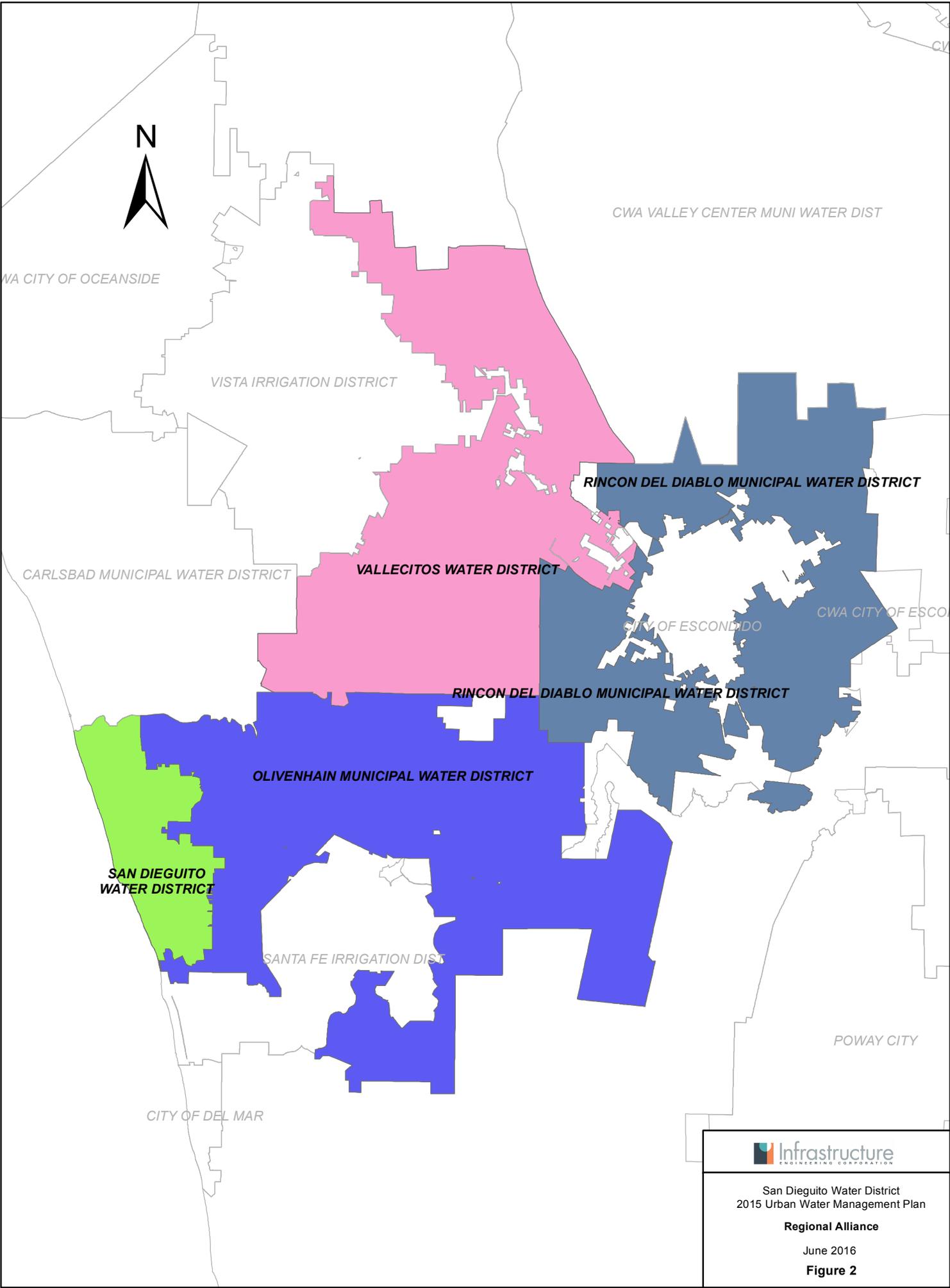
- Regional Reporting
- Regional Urban Water Management Plan (RUWMP)
- Regional Alliance

The District has opted to pursue Individual Reporting for their 2015 UWMP; however, as discussed previously, the District is in a regional alliance to address the requirements of SBX7-7.

2.3.1.Regional UWMP

CWC 10620

(d) (1) An urban water supplier may satisfy the requirements of this part by participation in area wide, regional, watershed, or basin wide urban water management planning where those plans will reduce preparation costs and contribute to the achievement of conservation and efficient water use.



San Dieguito Water District
 2015 Urban Water Management Plan

Regional Alliance

June 2016

Figure 2

The District is participating with supporting information in the SDCWA 2015 UWMP; however, the District has opted to pursue Individual Reporting for their 2015 UWMP, meaning that the District will report solely on their service area and develop an UWMP that meets all the requirements of the CWC. As part of their 2015 UWMP, the District has notified and coordinated with the appropriate regional agencies and constituents.

2.3.2. Regional Alliance

CWC 10608.20

(a) (1) ...Urban retail water suppliers may elect to determine and report progress toward achieving these targets on an individual or regional basis as provided in subdivision (a) of Section 10608.28...

CWC 10608.28

(a) An urban retail water supplier may meet its urban water use target within its retail service area, or through mutual agreement by any of the following:

- (1) Through an urban wholesale water supplier.*
 - (2) Through a regional agency authorized to plan and implement water conservation, including, but not limited to, an agency established under the Bay Area Water Supply and Conservation Agency Act (Division 31 (commencing with Section 81300)).*
 - (3) Through a regional water management group as defined in Section 10537.*
 - (4) By an integrated regional water management funding area.*
 - (5) By hydrologic region.*
 - (6) Through other appropriate geographic scales for which computation methods have been developed by the department.*
- (b) A regional water management group, with the written consent of its member agencies, may undertake any or all planning, reporting, and implementation functions under this chapter for the member agencies that consent to those activities. Any data or reports shall provide information both for the regional water management group and separately for each consenting urban retail water supplier and urban wholesale water supplier.*

As set forth above, the Water Conservation Bill of 2009 (SBX7-7) requires each urban retail water supplier to develop an urban water use target and an interim urban water use target. Notably, SBX7-7 authorizes urban retail water suppliers to determine and report progress toward achieving these targets on an individual agency basis or pursuant to a regional alliance as provided in CWC § 10608.28(a). The DWR Guidebook and the DWR Methodologies provide guidance to urban retail water suppliers for purposes of forming and carrying out a regional alliance in accordance with CWC § 10608.28(a) and related provisions of SBX7-7. The DWR Guidebook and the DWR Methodologies provide that 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.

The District, along with Vallecitos Water District, Olivenhain Municipal Water District, and Rincon del Diablo Municipal Water District have formed a regional alliance pursuant to CWC § 10608.28(a), the DWR Guidebook, and the DWR Methodologies to cooperatively determine and report progress toward achieving their water use targets on a regional basis. All of these members 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. The members of this regional alliance are depicted in Figure 2.

The members have entered a cooperative agreement to establish and carry out a regional alliance and they have jointly notified DWR of the formation of their regional alliance. Copies of the Cooperative Agreement and notification to DWR are set forth in Appendix B. In accordance with the DWR Guidebook and DWR Methodologies, the members have prepared an urban water use target and an interim urban water use target for the region, which is shown in Table 5B and within each of the other member’s individual UWMPs. Furthermore, each member of the regional alliance has developed its own set of interim and urban water use targets, along with other supporting data and determinations, all of which is included in each member’s individual UWMP. The District’s individual interim and urban water use targets are set forth in Chapter 5.

Table 2-2: Plan Identification			
Select Only One	Type of Plan		Name of RUWMP or Regional Alliance <i>if applicable</i>
<input checked="" type="checkbox"/>	Individual UWMP		
	<input type="checkbox"/>	Water Supplier is also a member of a RUWMP	
	<input checked="" type="checkbox"/>	Water Supplier is also a member of a Regional Alliance	Other
<input type="checkbox"/>	Regional Urban Water Management Plan (RUWMP)		
NOTES: The District, along with Vallecitos Water District, Olivenhain Municipal Water District, and Rincon del Diablo Municipal Water District have formed a regional alliance.			

2.4. Fiscal or Calendar Year and Units of Measure

CWC 1608.20

(a) (1) Urban retail water suppliers...may determine the targets on a fiscal year or calendar year basis.

2.4.1. Fiscal or Calendar Year

A water supplier has the option of reporting on a fiscal year or a calendar year basis, but it must be stated in the UWMP and remain consistent throughout the Plan.

The District has selected fiscal year for all reporting in their 2015 UWMP.

2.4.2. Reporting Complete 2015 Data

2015 UWMPs are required to include water use and planning data for the entire year, either calendar or fiscal.

2.4.3. Units of Measure

The District is reporting water supply and use data based upon fiscal year, beginning on July 1, 2014 and ending on June 30, 2015.

Units of measure in the 2015 UWMP, except as required by SBX7-7 in Chapter 5, are in Acre Feet (AF).

Table 2-3: Agency Identification	
Type of Agency (select one or both)	
<input type="checkbox"/>	Agency is a wholesaler
<input checked="" type="checkbox"/>	Agency is a retailer
Fiscal or Calendar Year (select one)	
<input type="checkbox"/>	UWMP Tables Are in Calendar Years
<input checked="" type="checkbox"/>	UWMP Tables Are in Fiscal Years
If Using Fiscal Years Provide Month and Date that the Fiscal Year Begins (mm/dd)	
7/1	
Units of Measure Used in UWMP (select from Drop down)	
Unit	AF
NOTES: Fiscal year reporting from 7/1/2014 to 6/30/2015. Units of measure are in acre-feet.	

2.5. Coordination and Outreach

CWC 10631

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

2.5.1. Wholesale and Retail Coordination

Retail agencies, such as the District, that receive a water supply from one or more wholesalers are required to provide their wholesaler(s) with the retail agency's projected water demand from that source, in five-year increments for 20 years, or as far as data is available.

As a member agency of the SDCWA, the District provided projected water demand information, as required by the CWC.

Table 2-4 Retail: Water Supplier Information Exchange
The retail supplier has informed the following wholesale supplier(s) of projected water use in accordance with CWC 10631.
Wholesale Water Supplier Name <i>(Add additional rows as needed)</i>
SAN DIEGO COUNTY WATER AUTHORITY
NOTES:

2.5.2. Coordination with Other Agencies and the Community

CWC 10620

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

CWC 10642

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

The District has coordinated its efforts with the agencies listed in Table 2-5.

Table 2-5: Coordination with Appropriate Agencies

Check at least one box on each row	Participated in developing the plan	Commented on the draft	Attended public meetings	Was contacted for assistance	Was sent a copy of the draft plan	Was sent a notice of intention to adopt	Not Involved / No Information
San Diego County Water Authority				X	X	X	
County of San Diego					X	X	
City of Encinitas	X			X	X	X	
San Elijo Joint Powers Authority				X		X	
Santa Fe Irrigation District	X			X		X	
Olivenhain Municipal Water District	X					X	
Vallecitos Water District	X			X			
Rincon Del Diablo Municipal Water District	X						

2.5.3. Notice to Cities and Counties

CWC 10621 (b)

Every urban water supplier required to prepare a plan pursuant to this part shall, at least 60 days before the public hearing on the plan required by Section 10642, notify any city or county within which the supplier provides water supplies that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan.

All cities or counties within which the District provides water supplies were notified at least 60 days prior to the public hearing. Similar notification, as presented in Appendix C, was also provided to the SDCWA, County of San Diego, and City of Encinitas. The District will provide a copy of the adopted Plan to each city or county within the District’s boundary no later than 60 days after its submission to the Department of Water Resources (DWR).

Chapter 3. System Description

This Chapter contains information relating to the District's water system and service area. This Chapter includes the following sections:

- General Description
- Service Area Boundary Map
- Service Area Climate
- Service Area Population and Demographics

3.1. General Description

CWC Section 10631

Describe the service area of the supplier.

The San Dieguito Water District (District) was formed in 1922 by a local developer to obtain water for about 1,000 acres of land in the town of Leucadia. Arrangements were later made to purchase water from the Santa Fe Land Company at Lake Hodges to accommodate the towns of Encinitas and Cardiff-by-the-Sea as well as Leucadia. Although the District was originally established to provide irrigation water to surrounding farms, ranches and fruit groves, the area eventually developed into a suburban residential community. The District now furnishes the majority of the water to residential and commercial customers.

The District joined the SDCWA in 1948 to acquire the right to purchase and distribute imported water throughout its service area. SDCWA purchases the water from the Metropolitan Water District of Southern California (MWD).

The District receives local runoff water from Lake Hodges and imported raw water from the SDCWA. Both sources are treated at the R.E. Badger Filtration Plant which is jointly owned with the Santa Fe Irrigation District (SFID). Treated water from the SDCWA can also be delivered directly to the District. The District receives recycled water from San Elijo Joint Powers Authority (SEJPA).

When the City of Encinitas incorporated in 1986, the District became a subsidiary district of the City. The five City Council members also serve as the Board of Directors of the District.

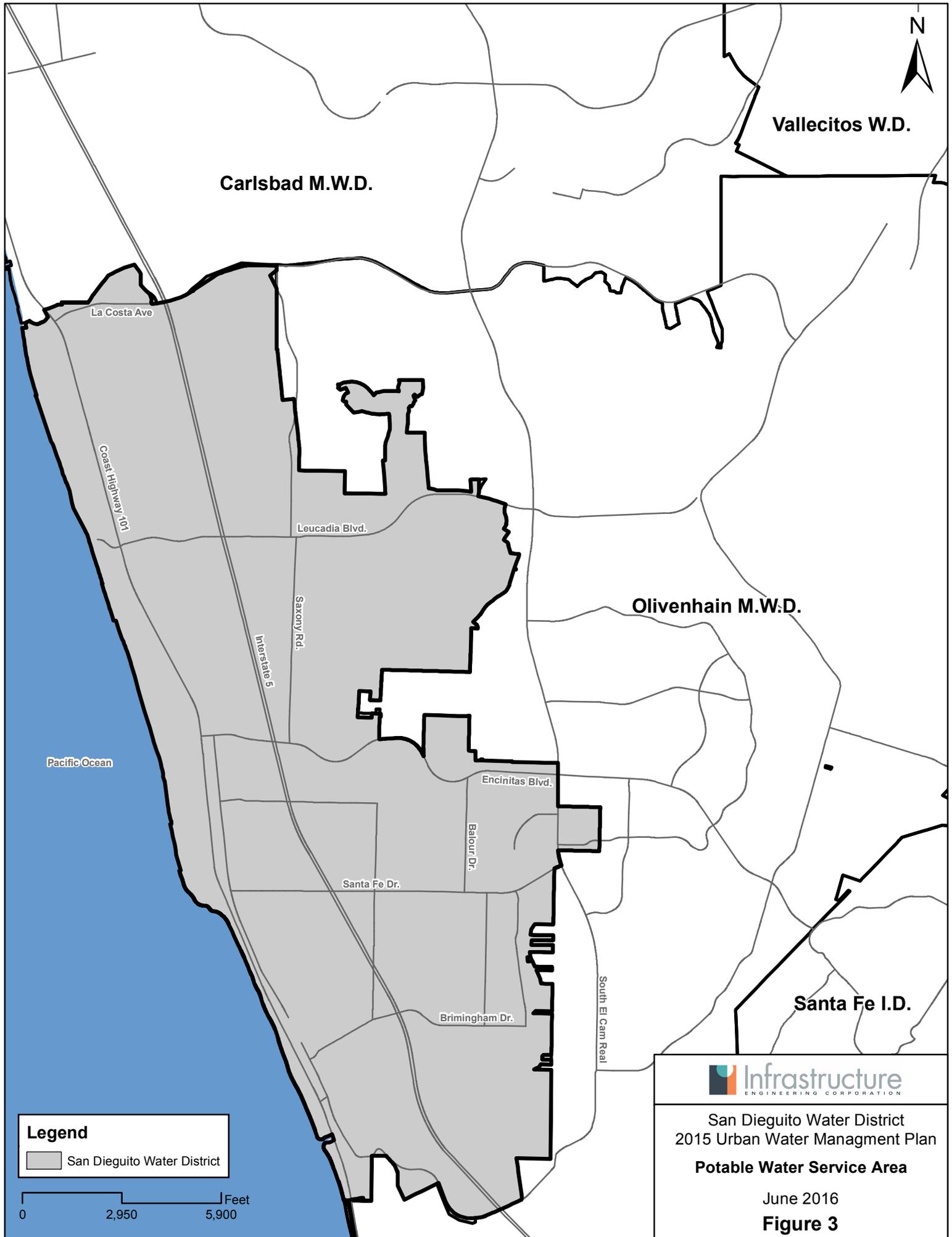
The District now covers an area of 5,647 acres and serves a population of approximately 37,200. The District is approximately 92 percent built-out; therefore projected growth is expected to be low.

The terrain of the District consists of rolling hills and valleys with elevations ranging from sea level to approximately 400 feet above sea level. The climate is semi-arid with an average annual precipitation of 10.4 inches. Table 1A provides the average climate data that affects the local water supply.

3.2. Service Area Boundary Maps

As part of the 2015 UWMPs, the DWR is recommending that service area maps be included. The following service area maps are included in this section:

- Potable Water Service Area
- Recycled Water System



Vallecitos W.D.

Carlsbad M.W.D.

La Costa Ave

Coast Highway 101

Leucadia Blvd.

Saxony Rd.

Interstate 5

Olivenhain M.W.D.

Pacific Ocean

Encinitas Blvd.

Balour Dr.

Santa Fe Dr.

Birmingham Dr.

South El Cam Real

Santa Fe I.D.

Legend

San Diegouito Water District



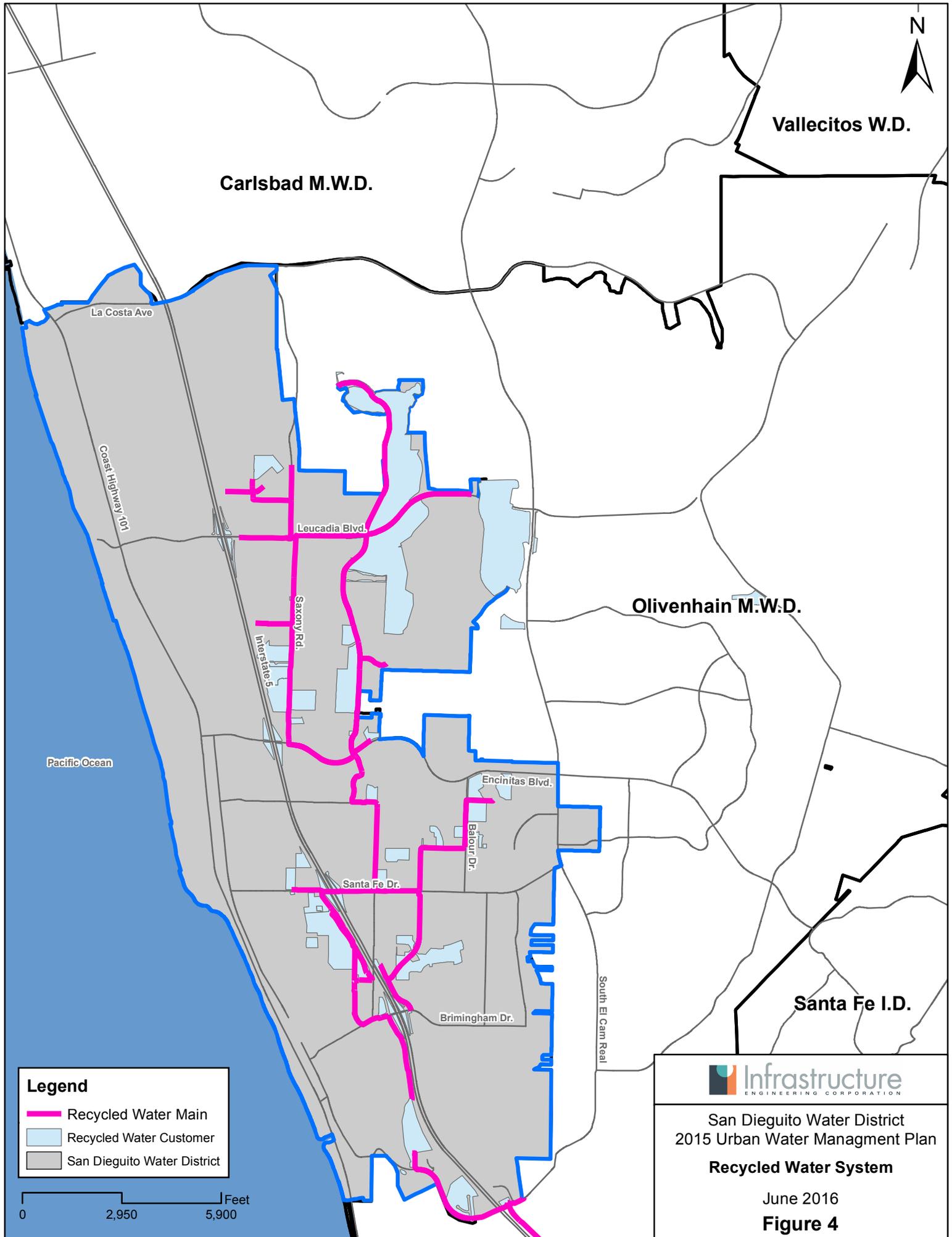
San Diegouito Water District
2015 Urban Water Management Plan

Potable Water Service Area

June 2016

Figure 3





Vallecitos W.D.

Carlsbad M.W.D.

Olivenhain M.W.D.

Santa Fe I.D.

La Costa Ave

Coast Highway 101

Leucadia Blvd.

Saxony Rd.

Interstate 5

Encinitas Blvd.

Balour Dr.

Santa Fe Dr.

Brimingham Dr.

South El Cam Real

Pacific Ocean

Legend

- Recycled Water Main
- Recycled Water Customer
- San Dieguito Water District

0 2,950 5,900 Feet



San Dieguito Water District
2015 Urban Water Management Plan

Recycled Water System

June 2016

Figure 4

3.3. Service Area Climate

CWC Section 10631

Describe the service area of the supplier, including... climate...

The District is located in North County San Diego, within evapotranspiration zone 16, as established by the California Irrigation Management Information System (CIMIS). The climate is semi-arid with an average annual precipitation of 10.4 inches. From 2016 U.S. Climate Data, the following weather averages are reported for San Diego:

- Annual high temperature: 69.8°F
- Annual low temperature: 57.5°F
- Average temperature: 63.65°F
- Average annual precipitation - rainfall: 10.4 inch
- Days per year with precipitation - rainfall: 43 days
- Average annual snowfall: -

Rainfall occurs mostly in the cooler half of the year, between December and March, while the summer months are virtually rainless with no measurable precipitation typically occurring.

Compared to national averages, the rest of the country experiences about 100 days of precipitation, while San Diego only experiences 43 days. The national average for sunny days is 213, while San Diego experiences 267.

The borderline arid climate combined with the relative lack of rainfall compared to the rest of the country presents particular challenges to water supply planning, both short term and long term. The fact that the region experiences most of its rainfall within a relatively short amount of time also presents challenges to agencies in Southern California, such as the District. The District typically experiences two very distinct water consumption patterns, one for the wet season and one for the dry season, when landscape irrigation needs increase dramatically.

3.3.1. Climate Change

Climate Change is addressed in Chapter 4 (4.6) and Chapter 6 (6.10).

3.4. Service Area Population and Demographics

CWC Section 10631

Describe the service area of the supplier, including current and projected population ...The projected population estimates shall be based upon data from

the state, regional, or local service agency population projections within the service area of the urban water supplier and shall be in five-year increments to 20 years or as far as data is available .

To estimate future water usage, the District used the San Diego Association of Government (SANDAG) Series 12: 2050 Regional Growth Forecast. Projected water demand for all water use sectors except for Agriculture were assumed to increase proportionally with population growth. Agriculture water use is projected to decrease as some of the land is converted to residential use.

Population from 2015 through 2035, in 5-year increments, is provided in Table 3-1.

Table 3-1 Retail: Population - Current and Projected						
Population Served	2015	2020	2025	2030	2035	2040(opt)
	37,200	38,212	38,759	39,306	39,853	
NOTES: Based upon SANDAG Series 12: 2050 Regional Growth Forecast.						

3.4.1. Other Demographic Factors

CWC 10631

Describe the service area of the supplier, including. . . other demographic factors affecting the supplier’ s water management planning.

The District is made up primarily of single family residential use types, with approximately 77 percent of its customer base consisting of single family residences. Another 15 percent consists of multi-family residences, with the remaining 8 percent consisting of non-residential use types (i.e. commercial, institutional, agricultural, etc.). The average lot size within the District is .34 acres with a household density of 2.45 people per household.

The District does not have any significant demographic factors that would affect its water management planning, however, the District is anticipated to convert a portion of its agricultural use to other uses in the future. This has been accounted for in the District’s forecast of accounts and associated usage. The number of agricultural accounts is projected to decrease from a total of 106 in 2015 with an associated annual use of 295 AFY to a total of 50 accounts by the year 2040 with an associated annual use of 100 AFY.

Chapter 4. System Water Use

Water use in the District is linked to weather, population, and the local economy. The District keeps records of their system's metered water deliveries and has categorized them by sector. In the late 1990s and early 2000s, the local economy was growing and water use had been steadily rising. Water use reached 8,168 AFY in fiscal year 2000. From fiscal years 2001 to 2009, the water use leveled to an average of 7,275 AFY of potable water and 558 AFY of recycled water. As water supplies became limited the past few years due to drought conditions and the adoption of the Water Conservation Act in 2009, the combination of water rationing and implementation of conservation programs decreased water demand significantly. Water use has decreased to an average of 6,109 AFY of potable water and 616 AFY of recycled water from fiscal years 2010 through 2015.

In order to properly analyze the use of the District's water sources and better plan and manage the District's water supply for the future, this chapter describes the District's current water use and projects the District's water use through the year 2035.

This Chapter includes the following sections:

- Recycled versus Potable and Raw Water Demand
- Water Uses by Sector
- Distribution System Water Losses
- Estimating Future Water Savings
- Water Use for Lower Income Households
- Climate Change

4.1. Recycled versus Potable and Raw Water Demand

As water supplies have become limited, a diversified portfolio of water supply sources is encouraged, and the use of recycled water is one of the options for diversification. The District's recycled water use has been increasing the past five years, and details will be addressed in Chapter 6. Raw water from Lake Hodges is treated to drinking water level through the R.E. Badger Water Filtration Plant before it is distributed to the District's water system; therefore, no raw water is used within the District.

4.2. Water Uses by Sector

CWC 10631

(e)(1) Quantify, to the extent records are available, past and current water use, over the same five-year increments described in subdivision (a), and

projected water use, identifying the uses among water use sectors, including, but not necessarily limited to, all of the following uses:

(A) Single-family residential.

(B) Multifamily.

(C) Commercial.

(D) Industrial.

(E) Institutional and governmental.

(F) Landscape.

(G) Sales to other agencies.

(H) Saline water intrusion barriers, groundwater recharge, or conjunctive use, or any combination thereof.

(I) Agricultural...

(2) The water use projections shall be in the same five-year increments described in subdivision (a).

The District is required to include the historical, current, and projected water use in five-year increments in this Plan. Water use data was obtained from the District's water meter records and categorized into different demand sectors that are accepted by the Water Use Efficiency (WUE) data online submittal tool, including single family residential, multi-family residential, commercial, industrial, institutional and government, landscape, and agricultural. The total potable water use in 2010 was 6,022 AFY, which included 3,357 AFY of single family residential use, 1,284 AFY of multi-family residential use, 572 AFY commercial use, 180 AFY of institutional and government use, 420 AFY of landscape use, and 210 AFY of agricultural use.

In the 2010 UWMP, total potable water use for 2015 was projected to be 6,731 AFY. The actual metered water use for 2015 is 6,109 AFY, with approximately 207 AFY distribution system losses estimated based on the AWWA water audit methodology. Table 4-1 shows the District's actual water use in detail.

Table 4-1 Retail: Demands for Potable and Raw Water - Actual			
Use Type <i>(Add additional rows as needed)</i>	2015 Actual		
Description	Additional Description <i>(as needed)</i>	Level of Treatment When Delivered	Volume
Single Family		Drinking Water	3,388
Multi-Family		Drinking Water	1,273
Commercial		Drinking Water	599
Institutional/Governmental		Drinking Water	176
Landscape		Drinking Water	469
Agricultural irrigation		Drinking Water	206
Losses		Drinking Water	207
TOTAL			6,316
NOTES:			

Water use has been projected for the next 20 years, in 5-year increments, in order to continuously assess the District's water supply and water use conditions and support future infrastructure planning, capital improvement plans, water revenue, and land-use planning.

Future water use for all water use sectors are assumed to increase proportionately with population growth except for agriculture use. Agriculture water use is projected to decrease as some agricultural use land is going to be converted to residential use in the future. Water savings was not included in the future water projections as there is no reliable data on projected water savings at this time. Details of the future water use projections through 2035 are shown in Table 4-2.

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

Use Type <i>(Add additional rows as needed)</i>	Additional Description <i>(as needed)</i>	Projected Water Use <i>Report To the Extent that Records are Available</i>				
Description		2020	2025	2030	2035	2040-opt
Single Family		3,679	3,730	3,783	3,836	
Multi-Family		1,384	1,403	1,423	1,443	
Commercial		597	605	614	622	
Landscape		500	507	514	521	
Institutional/Governmental		195	198	200	203	
Agricultural irrigation		250	200	150	100	
Losses		224	225	226	228	
TOTAL		6,829	6,868	6,910	6,953	
NOTES:						

Recycled water use projections for the next 20 years will be discussed in Chapter 6. Total water use from 2015 through 2035, with the inclusion of recycled water use, is summarized in Table 4-3.

Table 4-3 Retail: Total Water Demands

	2015	2020	2025	2030	2035	2040 <i>(opt)</i>
Potable and Raw Water <i>From Tables 4-1 and 4-2</i>	6,316	6,829	6,868	6,910	6,953	
Recycled Water Demand* <i>From Table 6-4</i>	738	730	750	750	750	
TOTAL WATER DEMAND	7,055	7,559	7,618	7,660	7,703	
<i>*Recycled water demand fields will be blank until Table 6-4 is complete.</i>						

4.3. Distribution System Water Losses

CWC 10631

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

(J) Distribution system water loss

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

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

Per the **CWC**, the District is required to estimate its distribution system losses for the most recent 12-month period available and project losses in 5-year increments for future. The distribution system water losses can reflect the quality and efficiency of the District’s system operations.

Distribution system water losses, also known as real losses, are the physical losses from the District’s water system and storage facilities before reaching the customers and can be estimated using the American Water Works Association (AWWA) Water Audit Method. The District has a reliable water meter system and has kept good records on its water use data, and unmetered water use is negligible. The District’s average water loss over the last five years is 2.4 percent of total demand, as the District has developed several system water loss control measures to minimize water losses. The District has a Meter Replacement Program that replaces water meters every 12 to 15 years. Non-destructive testing of the water mains is performed regularly to assess the remaining life of the mains and detect leakage problems. The real losses in 2015 are estimated to be approximately 207 AFY, approximately 3.3 percent of the total water use, by subtracting the apparent losses from the total water losses. Table 4-4 summarizes the distribution system losses in 2015.

Table 4-4 Retail: 12 Month Water Loss Audit Reporting	
Reporting Period Start Date (mm/yyyy)	Volume of Water Loss*
07/2014	220
* Taken from the field "Water Losses" (a combination of apparent losses and real losses) from the AWWA worksheet.	

The AWWA worksheet used to calculate water loss is provided in Appendix D.

The real losses in 2015 are approximately 3.3 percent of the sum of water uses of the remaining sectors. This percentage is used to project future water losses, as shown in Table 4-2.

4.4. Estimating Future Water Savings

CWC 10631

(e) (4) (A) If available and applicable to an urban water supplier, water use projections may display and account for the water savings estimated to result from adopted codes, standards, ordinances, or transportation and land use plans identified by the urban water supplier, as applicable to the service area.

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

Water suppliers are encouraged to estimate their future water use projections with the inclusion of water savings. The District is a member of the California Urban Water Conservation Council (Council) and has implemented 14 urban water conservation Best Management Practices (BMPs) that are intended to reduce long-term urban water demands. Since it is difficult to accurately estimate a percentage of reduction with the combination of implemented BMPs, the water use projections for the future do not include water savings.

4.5. Water Use for Lower Income Households

CWC 10631.1

(a) The water use projections required by Section 10631 shall include projected water use for single-family and multifamily residential housing needed for lower income households, as defined in Section 50079.5 of the Health and Safety Code, as identified in the housing element of any city, county, or city and county in the service area of the supplier.

California Health and Safety Code 50079.5

(a) "Lower income households" means persons and families whose income does not exceed the qualifying limits for lower income families... In the event the federal standards are discontinued, the department shall, by regulation, establish income limits for lower income households for all geographic areas of

the state at 80 percent of area median income, adjusted for family size and revised annually.

Within the District there are single family and multi-family affordable housing units. The District's GIS parcel data was used to determine the locations and the demand projections for these low-income single family and multi-family residential housing units. Based on the District's parcel geodatabase, the affordable housing units are located in different designated zones, which are Mixed Commercial, Single Family Residential, and Multi-Family Residential. There are approximately 44 single family housing units and 317 multi-family affordable housing units in 2015. The number of single family housing units is projected to increase to 51, and the number of multi-family housing units is projected to increase to 356 by the year of 2035.

The location of affordable housing units within the District is shown in Figure 5.

Carlsbad M.W.D.

N

La Costa Ave.

Coast Highway 101

Leucadia Blvd.

Saxony Rd.

Interstate 5

Olivenhain M.W.D.

Encinitas Blvd.

Balour Dr.

Santa Fe Dr.

Pacific Ocean

Birmingham Dr.

South El Cam Real

Santa Fe I.D.

Legend

● Affordable Housing

▭ SDWD Boundary

0 2,650 5,300 Feet



San Dieguito Water District
Urban Water Management Plan

Affordable Housing Locations

June 2016

Figure 5

Water use for single family affordable housing units is estimated to be 25.4 AFY, 26.2 AFY, 26.4 AFY, 26.5 AFY, and 26.6 AFY for years 2015, 2020, 2025, 2030, and 2035, respectively. Water use for multi-family affordable housing units is estimated to be 65.6 AFY, 70.0 AFY, 70.1 AFY, 70.2 AFY, and 70.6 AFY for years 2015, 2020, 2025, 2030, and 2035, respectively. Total water use for affordable housing units is projected to be 97.2 AFY by 2035. As indicated in Table 4-5, water use projection for affordable housing units has been included in the projected water demands shown in Section 2 of this chapter.

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

4.6. Climate Change

Climate change is defined as the long-term change in weather patterns over a specific time period. Specifically, global warming refers to a type of rapid climate change that has occurred over the past 60 years and is anticipated to continue into the future.

Climate change can have a potentially significant impact on water supply and water demand planning in the future as temperatures increase in an already semi-arid region, such as the District.

The SDCWA, the City of San Diego, and the County of San Diego formed a Regional Water Management Group (RWMG) to develop San Diego's Integrated Regional Water Management Plan (IRWM Plan). The IRWM Plan aims at developing long-term water reliability, improving water quality, and protecting natural resources. The RWMG coordinated with the District, other state and federal agencies, and local water agencies to complete the 2013 IRWM Plan in September 2013. The 2013 IRWM Plan includes a Climate Change Planning Study that evaluates the adaptability of water management systems in the San Diego IRWM region to

climate change. The study included a vulnerability analysis to identify the region's climate change issues. These vulnerabilities were prioritized to determine their level of adaptability.

With consideration of the prioritized climate change vulnerability issues identified in the 2013 IRWM Plan, the District has completed an IRWM Climate Change Vulnerability Assessment (Vulnerability Assessment) which is provided in Appendix E. This Vulnerability Assessment evaluates the potential impacts of climate change on different aspects, including water demand, water supply, water quality, sea level rise, flooding, ecosystem and habitat vulnerability, and hydropower.

This Vulnerability Assessment focuses primarily on the water demand, water supply, and water quality elements. This section primarily discusses the vulnerability issues in water demand. Vulnerability issues in water supply will be discussed in Section 6.10.

As California was experiencing the fourth consecutive year of drought, the District Board declared a Water Supply Shortage Response Level 3 Condition to restrict water use. In addition, the District approved other drought actions and water conservation programs to restrict certain water uses and reduce water consumption. Based on the District's 2013 to 2015 monthly water use data, minimum and maximum monthly water use varies by more than 25 percent of the average monthly water use. In other words, water use varies by more than 50 percent seasonally within the District.

Based on the historical data, irrigation demand tends to increase with higher temperatures and less rainfall events. Crops grown within the District are climate-sensitive and therefore may require more irrigation. Increase in temperature is expected due to climate change in the region. Rainfall projections vary showing that the region will receive from 35 percent less rainfall to 17 percent more rainfall, and storms may be less frequent but more intense. The regional water demand is projected to increase slightly between 0.6 percent and 1.8 percent by 2035 due to climate change.

Chapter 5. SB X7-7 Baselines and Targets

Senate Bill X7-7 (SB X7-7), also known as the Water Conservation Act of 2009, was enacted in November 2009, requiring all urban retail water suppliers to increase water efficiency by reducing urban water use by 20 percent by the year 2020. This chapter provides the calculations of baselines and targets for the District. This Chapter also compares the actual water use for the year 2015 with the interim target calculated for 2015 to demonstrate compliance with the District's established water use targets for the years 2015 and 2020.

This chapter addresses compliance with SB X7-7 and includes the following sections:

- Guidance for Wholesale Agencies
- Updating Calculations from 2010 UWMP
- Baseline Periods
- Service Area Population
- Gross Water Use
- Baseline Daily per Capita Water Use
- 2015 and 2020 Targets
- 2015 Compliance Daily per Capita Water Use
- Regional Alliance

5.1. Updating Calculations from 2010 UWMP

CWC 10608.20

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

Methodologies DWR 2011, Methodology 2 Service Area Population

Page 27 – Water suppliers may revise population estimates for baseline years between 2000 and 2010 when 2010 census information becomes available. DWR will examine discrepancy between the actual population estimate and DOF's projections for 2010; if significant discrepancies are discovered, DWR may require some or all suppliers to update their baseline population estimates.

5.1.1. Update of Target Method

Water Agencies are allowed to update their 2020 Target using a different target method than was used in the 2010 UWMP. These methods are listed in the ***Methodologies for Calculating Baseline and Compliance Urban Per Capita Water Use (Methodologies)***. The District follows the latest 2015 ***UWMP Guidebook (Guidebook)*** and the ***Methodologies*** to update the 2020 Target in this Plan. Details on the development of the baseline targets will be discussed in the following sections.

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

DWR has found out that there are 3 percent to 9 percent differences between the Department of Finance (DOF)'s projected populations for 2010 based on the 2000 U.S. Census data and the actual population for 2010 based on the 2010 U.S. Census data. Therefore, water agencies are required to re-calculate their baseline population for the 2015 UWMPs using the 2000 and 2010 Census data, if they did not use the 2010 Census data (which wasn't available until 2012) for the 2010 UWMPs. The District projected population within its service area using the SANDAG Series 12: 2050 Regional Growth in its 2010 UWMP, which was based on inputs from local jurisdictions and agencies with future planning and land use assumptions.

The DWR has developed a population tool that determines service area population for census years by extracting U.S. Census data at the block level for the District's service area.

The DWR population tool was used for all populations in this chapter. A comparison between SANDAG populations and populations from the DWR tool indicate that they are within 2 percent.

The change of population projection method will slightly affect the baselines and targets calculated in the 2010 UWMP. This Plan uses the refined population data updated from the 2010 Census to re-calculate the baselines and targets.

5.1.3. SB X7-7 Verification Form

Retail water suppliers are required to submit the standardized tables in the SB X7-7 Verification Form with their 2015 UWMPs, which demonstrate compliance with the Water Conservation Act of 2009 and can choose to determine and report progress toward achieving the targets on an individual and/or regional basis in accordance to CWC 10608.28 (a). The SB X7-7 Verification Form contains tables that are interconnected and provides step-by-step guidance in determining the baselines daily per capita water use, compliance year daily per capita water use, 2020 Target, Interim (2015) Target, and whether the District is in compliance with the established water use targets. The SB X7-7 Verification Form is included in Appendix F.

5.2. Baseline Periods

CWC 10608.20

(e) An urban retail water supplier shall include in its urban water management plan due in 2010. . . the baseline daily per capita water use...along with the bases for determining those estimates, including references to supporting data.

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

Water suppliers can select different years for their baseline periods in the 2015 UWMPs. The water use GPCD (Gallons Per Capita Per Day) is required to be calculated and reported for the 10- or 15-year baseline (Baseline GPCD) and the 5-year baseline (Target Confirmation) per the CWC 10608.12.

CWC 10608.12

(b) "Base daily per capita water use" means any of the following:

(1) The urban retail water supplier's estimate of its average gross water use, reported in gallons per capita per day and calculated over a continuous 10-year period ending no earlier than December 31, 2004, and no later than December 31, 2010.

(2) For an urban retail water supplier that meets at least 10 percent of its 2008 measured retail water demand through recycled water that is delivered within the service area of an urban retail water supplier or its urban wholesale water supplier, the urban retail water supplier may extend the calculation described in paragraph (1) up to an additional five years to a maximum of a continuous 15-year period ending no earlier than December 31, 2004, and no later than December 31, 2010.

The District delivered 600 AFY of recycled water in 2008, which accounted for 8 percent of the total deliveries. The percentage of recycled water used in 2008 was less than 10 percent, so the baseline GPCD is calculated using a 10-year baseline period based on the **CWC**. In the 2010 UWMP, 1995 through 2004 were selected for the 10-year baseline period, but this Plan selects 1996 to 2005 for the 10-year baseline period as it is reported based upon fiscal years. For example, the fiscal year for 1996 begins on July 1, 1995 and ends on June 30, 1996.

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

CWC 10608.12 (b)

(3) For the purposes of Section 10608.22, the urban retail water supplier's estimate of its average gross water use, reported in gallons per capita per day and calculated over a continuous five-year period ending no earlier than December 31, 2007, and no later than December 31, 2010.

In the 2010 UWMP, 2003 through 2007 were selected as the 5-year baseline period. Since this Plan is reported in fiscal year, a 5-year baseline period ranging from 2004 to 2008 was selected to calculate the water use in GPCD to confirm that the District meets the minimum water use reduction requirements of the selected 2020 target.

5.3. Service Area Population

CWC 10608.20

(e) An urban retail water supplier shall include in its urban water management plan due in 2010...the baseline per capita water use, ...along with the bases for determining those estimates, including references to supporting data.

(f) When calculating per capita values for the purposes of this chapter, an urban retail water supplier shall determine population using federal, state, and local population reports and projections.

CWC10644

(a) (2) The plan...shall include any standardized forms, tables or displays specified by the department.

The District used the SANDAG Series 12: 2050 Regional Growth to project its service area population in the 2010 UWMP, which was based on inputs from local jurisdictions and agencies with future planning and land use assumptions.

The District is required to use the 2000 and 2010 Census data to re-calculate its baseline population, as it did not use the 2010 U.S. Census data to calculate its baseline population in the 2010 UWMP. There are several methods provided in the **Guidebook** to estimate population, which are population data from the Department of Finance (DOF), Persons-per-Connection Method, DWR Population Tool, and Other methods that require review and approval from the DWR.

The District used the DWR Population Tool to estimate its service area population. As the District's service area boundary covers only a portion of the City of Encinitas, and the remainder of the City is served by the Olivenhain Municipal Water District, the DOF population data cannot be used directly to estimate the service area population. Service area boundaries for the census years were uploaded to the DWR Population Tool so that the tool could utilize the US Census Data to obtain population data within the service area by Census year.

The DWR Population Tool was used for population estimations for the baseline years in this chapter. A comparison between SANDAG populations and populations from the DWR Population Tool indicates that they are within 2 percent.

Service connections for years 2000, 2005, 2010, and 2015 were input and the tool automatically calculated the population for the corresponding years. The population of the remaining years was estimated using linear interpolation. Population was estimated to be 38,974 for year 2010 in the 2010 UWMP, while the population was estimated to be 36,248 for the year 2010 using the DWR Population Tool. The baseline year population calculated from

the tool is slightly higher before 2001 and slightly lower for and after 2001 as compared with the population estimated in the 2010 UWMP. Details on service area population are listed in Table SB X7-7 Table 3 (Appendix F).

5.4. Gross Water Use

CWC 10608.12

(g) "Gross Water Use" means the total volume of water, whether treated or untreated, entering the distribution system of

an urban retail water supplier, excluding all of the following:

(1) Recycled water that is delivered within the service area of an urban retail water supplier or its urban wholesale

water supplier

(2) The net volume of water that the urban retail water supplier places into long term storage

(3) The volume of water the urban retail water supplier conveys for use by another urban water supplier

(4) The volume of water delivered for agricultural use, except as otherwise provided in subdivision (f) of Section 10608.24.

California Code of Regulations Title 23 Division 2 Chapter 5.1 Article

Section 596 (a) An urban retail water supplier that has a substantial percentage of industrial water use in its service area is eligible to exclude the process water use of existing industrial water customers from the calculation of its gross water use to avoid a disproportionate burden on another customer sector.

The District records its water use by sector annually. The sectors include agriculture, commercial, construction, single family residential, multi-family residential, government, landscape, and public use. Agriculture water use can be excluded in the calculation of the gross water use, but agriculture water use only contributes to a small portion of the District's total water use, so it is included. The District does not serve any industrial water customers, so no process water needed to be excluded in the gross water use calculation. The District has a 10-year baseline average gross water use of 7,471 AFY, and a 5-year baseline average gross water of 7,261 AFY. The actual water use in year 2015 is 6,109 AFY. Table SB X7-7 Table 4 (Appendix F) lists the annual gross water use of the baseline years.

5.5. Baseline Daily Per Capita Water Use

In order to update the District's 2015 target and 2020 target, the daily per capita water use (GPCD) in each year of the baseline period and the compliance year (2015) were calculated. The annual GPCD is calculated by dividing the annual gross water use with the annual service area population. The annual GPCDs for the 10-year period and the 5-year period were averaged to get the 10-year average baseline GPCD and the 5-year baseline GPCD, respectively.

The 10-year average baseline GPCD is calculated to be 189 gpcd, and the 5-year average baseline GPCD is calculated to be 177 gpcd. The actual daily per capita water use for 2015 is calculated to be 147 gpcd. Detailed calculations are shown in SB X7-7 Table 5 (Appendix F).

5.6. 2015 and 2020 Targets

CWC 10608.20

(e) An urban retail water supplier shall include in its urban water management plan due in 2010. . . urban water use target, interim urban water use target, ...along with the bases for determining those estimates, including references to supporting data (10608.20(e)).

CWC 10608.20

(g) An urban retail water supplier may update its 2020 urban water use target in its 2015 urban water management plan...

Per the **CWC**, baseline population is re-calculated using the DWR Population Tool, and the daily per capita water use for each baseline year is re-calculated with the updated service area population. The new baseline daily per capita water use values reflect changes from the values calculated in the 2010 UWMP due to the changes in population and the selection of different baseline years, so the 2015 and 2020 targets would also be affected.

The 2020 target can be calculated using any of the four methods listed in the **Methodologies**. In this Plan, the 2020 target is calculated using Target Method 1, which is a 20 percent reduction of the 10-year average baseline GPCD, resulting in a 2020 target of 151 gpcd. The 2015 Interim Target is estimated to be 170 gpcd by averaging the 2020 target and the 10-year baseline average daily per capita water use. Detailed calculations are shown in the SB X7-7 Verification Form in Appendix F.

5.6.1.2020 Target Confirmation

CWC 10608.22

Notwithstanding the method adopted by an urban retail water supplier pursuant to Section 10608.20, 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 as defined in paragraph (3) of subdivision (b) of Section 10608.12. This section does not apply to an urban retail water supplier with a base daily per capita water use at or below 100 gallons per capita per day.

Per the **CWC**, the calculated 2020 target must be confirmed to ensure that it will reduce the urban retail water supplier's 2020 water use by a minimum of 5 percent of the 5-year average baseline daily water use. The maximum 2020 target is calculated to be 168 gpcd, which is greater than the calculated 2020 Target of 151 gpcd, as shown in SB X7-7 Table 7-F (Appendix F). Therefore, the 2020 target is confirmed to be 151 gpcd.

5.6.2. Calculate the 2015 Interim Urban Water Use Target

The 2015 Interim Target is required to be included in the 2015 UWMP and is used to determine whether the District is on track to achieve its 2020 Baseline Target. The 2015 Interim Target is determined to be 170 gpcd by calculating the midpoint between the 10-year average baseline daily water use and the 2020 target GPCD.

5.6.3. Baselines and Targets Summary

The calculated 10-year average baseline GPCD, the 5-year average baseline GPCD, the 2015 Interim Target, and the Confirmed 2020 Target are summarized in Table 5-1.

Table 5-1 Baselines and Targets Summary <i>Retail Agency or Regional Alliance Only</i>					
Baseline Period	Start Year	End Year	Average Baseline GPCD*	2015 Interim Target *	Confirmed 2020 Target*
10-15 year	1996	2005	189	170	151
5 Year	2004	2008	177		
*All values are in Gallons per Capita per Day (GPCD)					
NOTES:					

5.7. 2015 Compliance Daily per Capita Water Use

CWC 10608.12

(e) “Compliance daily per-capita water use” means the gross water use during the final year of the reporting period...

CWC 10608.24

(a) Each urban retail water supplier shall meet its interim urban water use target by December 31, 2015.

CWC 10608.20

(e) An urban retail water supplier shall include in its urban water management plan due in 2010 . . . compliance daily per capita water use, along with the bases for determining those estimates, including references to supporting data.

Per the **CWC**, the District is required to determine whether it has met their daily water use target for the final year of the reporting period of this Plan, which is for the year 2015. The actual 2015 daily water use is calculated to be 152 gpcd, which is below the 2015 Interim Target of 170 gpcd, thus, the District achieved the targeted reduction for this year. Details are shown in Table 5-2, SB X7-7 Table 8 (Appendix F), and DBX7-7 Table 9 (Appendix F).

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

Actual 2015 GPCD*	2015 Interim Target GPCD*	Optional Adjustments to 2015 GPCD Enter "0" if no adjustment is made <i>From Methodology 8</i>					2015 GPCD* <i>(Adjusted if applicable)</i>	Did Supplier Achieve Targeted Reduction for 2015? Y/N
		Extraordinary Events*	Economic Adjustment*	Weather Normalization*	TOTAL Adjustments*	Adjusted 2015 GPCD*		
152	170				0	152	152	Yes

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

NOTES:

5.8. Regional Alliance

The District has chosen to determine and report progress toward achieving the baseline targets on an individual agency basis and a regional basis (i.e. Regional Alliance). The **Guidebook** and the **Methodologies** provide guidance to urban retail water suppliers for purposes of forming and carrying out a regional alliance in accordance with **CWC 10608.28** and related provisions of **SB X7-7**. In addition, there is a Regional Alliance Submittal that must be completed and submitted to the DWR. The Regional Alliance Submittal is provided in Appendix G.

The District, along with Vallecitos Water District, Olivenhain Municipal Water District, and Rincon del Diablo Municipal Water District have formed a regional alliance to cooperatively determine and report progress toward achieving their water targets on a regional basis. All of these members are recipients of water from a common wholesale water supplier, which is SDCWA, and all members are located within the South Coast Hydrologic Region as shown in the California Water Plan.

The members have entered into a cooperative agreement to establish and carry out a regional alliance and have jointly notified the DWR of the formation of their regional alliance. Copies of the Cooperative Agreement and notification to the DWR are set forth in Appendix B. In accordance with the **Guidebook** and **Methodologies**, the members have prepared an urban water use target and an interim urban water use target for the region, which is shown in Table 5-3. Detailed calculations for the Regional Alliance are provided in Appendix G. Furthermore, each member of the regional alliance has developed its own set of interim and 2020 targets,

along with other supporting data and determinations, all of which are included in each member's UWMP.

Table 5-3: 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
SDWD	151	37,200	5,617,200	
Olivenhain MWD	281	70,522	19,816,682	
Rincon del Diablo MWD	227	27,476	6,237,052	
Vallecitos Water District	159	93,897	14,929,623	
			-	
Regional Alliance Total	818	229,095	46,600,557	203
<p><i>*All participating agencies must submit individual SB X7-7 Tables, as applicable, showing the individual agency's calculations. These tables are: SB X7-7 Tables 0 through 6, Table 7, any required supporting tables (as stated in SB X7-7 Table 7), and SB X7-7 Table 9, as applicable. These individual agency tables will be submitted with the individual or Regional Urban Water Management Plan.</i></p>				
NOTES				

Chapter 6. System Supplies

The District is one of the two water districts serving the City of Encinitas, which includes the communities of Old Encinitas, New Encinitas, Leucadia, Cardiff, and Olivenhain. The District provides potable water and recycled water to over 37,000 citizens within its service area, and Olivenhain Municipal Water District (OWMD) serves the remainder of the City. The District obtains water from Lake Hodges and imports treated and untreated water from the SDCWA. Details on recycled water will be discussed in this chapter.

Local climate conditions have a significant effect on the proportion of local water supplies and imported water supplies that comprise the District's water supply portfolio. This chapter discusses the sources of water supply the District currently has and potential sources in the future that can reduce the District's dependency on imported water. The following sections are included in this chapter:

- Purchased or Imported Water
- Groundwater
- Surface Water
- Stormwater
- Wastewater and Recycled Water
- Desalinated Water Opportunities
- Exchanges or Transfers
- Future Water Projects
- Summary of Existing and Planned Sources of Water
- Climate Change Impacts to Supply

6.1. Purchased or Imported Water

The District receives treated and untreated water from the SDCWA's second aqueduct. The SDCWA purchases water from the Metropolitan Water District (MWD), which comes from two sources: the Colorado River and the Sacramento River Delta from Northern California via the State Water Project. Water from the two aqueducts is imported and stored in Lake Skinner which is located in the City of Hemet and operated by MWD. The SDCWA receives additional Colorado River water due to a water transfer agreement with the Imperial Irrigation District and water conserved by the Coachella and All American Canal Lining Projects. Imported untreated water is treated at the R.E. Badger Filtration Plant, which is owned jointly by the District and the Santa Fe Irrigation District (SFID).

The treatment plant treats both imported water and local water from Lake Hodges. The plant has a treatment capacity of 40 million gallons per day (MGD), or approximately 44,835 AFY. The District also jointly owns the 1,100 acre-foot raw water San Dieguito Reservoir and a covered 13 million gallon treated water reservoir with SFID. The District has one-third ownership in a three million gallon treated water storage reservoir, and the Olivenhain Municipal Water District owns the remaining two-thirds. The District is the sole owner of two underground treated water reservoirs with capacities of 7.5 million gallons and 2.5 million gallons, which are located within the District.

Due to the severe drought the past few years, the District has increased the volume of imported water for its water supply from 1900.8 AFY in 2011 to 5748.7 AFY in 2015, as the local water supply from Lake Hodges decreased from 4434.3 AFY in 2011 to 603.2 AFY in 2015. The volumes of imported water in 2015 are shown in Table 6-8.

6.2. Groundwater

CWC 10631

(b) ...If groundwater is identified as an existing or planned source of water available to the supplier, all of the following information shall be included in the plan:

(1) A copy of any groundwater management plan adopted by the urban water supplier...or any other specific authorization for groundwater management.

(2) ...For basins that a court or the board has adjudicated the rights to pump groundwater, a copy of the order or decree adopted by the court or the board and a description of the amount of groundwater the urban water supplier has the legal right to pump under the order or decree.

The District does not use groundwater to supply its service area.

Table 6-1 Retail: Groundwater Volume Pumped						
<input checked="" type="checkbox"/>	Supplier does not pump groundwater. The supplier will not complete the table below.					
Groundwater Type	Location or Basin Name	2011	2012	2013	2014	2015
<i>Add additional rows as needed</i>						
TOTAL		0	0	0	0	0

6.3. Surface Water

The District's surface water source is from Lake Hodges, and the percentage of surface water that makes up the total water supply portfolio varies depending on climatic conditions. In 2011, Lake Hodges accounted for almost 65 percent of the District's total water supply. However, as the current drought conditions continued and became more severe, the supply from Lake Hodges dropped to less than 16 percent, or 1,136 AFY in 2014, and less than 9 percent, or 603 AFY in 2015, as shown in Table 6-8.

Lake Hodges is located west of Interstate 15, and east of the Olivenhain Reservoir within the San Dieguito River Watershed.¹ Lake Hodges is owned and operated by the City of San Diego (San Diego). Through the 1966 agreement with the City of San Diego, the District and the Santa Fe Irrigation District (SFID) were able to purchase an average of 7,500 acre-feet of raw water per year from San Diego at a fraction of the cost of imported water. In 1998, the agreement changed the amount of local water that could be purchased by the District. The amount available was modified to half of the inflow into the lake after the completion of the Lake Hodges to Olivenhain Pipeline, which was part of the Lake Hodges Project. This project includes pipeline tunnels and pump stations that connect Lake Hodges to Olivenhain Reservoir, or to the regional aqueduct system. Through the project, Lake Hodges became part of the SDCWA Emergency Storage Project that supplies water to the San Diego region in the event of an interruption in imported water deliveries.

A new agreement called "***Amendment to and Restatement of March 17, 1998 Agreement Between the City of San Diego, Santa Fe Irrigation District and San Dieguito Water District Regarding Lake Hodges***" was completed in November 2014 and clarified the District's storage rights with Lake Hodges, sharing of water transfers from Lake Hodges, and cost sharing. The new agreement gives the District 2,133 AF of storage capacity within Lake Hodges, 21.3 percent of the inflow into the lake, and equally shares available diversion capacity so that the District can transfer water out of Lake Hodges. The District agrees to pay 25 percent of both the operation and maintenance costs and capital costs associated with Lake Hodges.

6.4. Stormwater

SEJPA has a stormwater recovery system that has recovered and treated approximately 2,353 AFY.

¹ http://www.projectcleanwater.org/html/ws_san_dieguito.html

6.5. Wastewater and Recycled Water

The District has supplied recycled water to its customers since August of 2000. The source of the recycled water is tertiary treated wastewater from the San Elijo Water Reclamation Facility (SEWRF).² Wastewater within the District's service area is collected by three agencies: the Encinitas Sanitary Division (ESD), the Leucadia Wastewater District (LWWD), and the Cardiff Sanitary Division (CSD). The collected wastewater is delivered to and treated at the Encina Water Pollution Control Facility (EWPCF) and the SEWRF. Some of the treated wastewater is used as recycled water, and the remainder is discharged to an ocean outfall.

6.5.1. Recycled Water Coordination

CWC 10633

The plan shall provide, to the extent available, information on recycled water and its potential for use as a water source in the service area of the urban water supplier. The preparation of the plan shall be coordinated with local water, wastewater, groundwater, and planning agencies that operate within the supplier's service area.

Wastewater within the District is collected by three sanitary agencies and treated at two wastewater treatment plants. The three sanitary agencies are listed below:

- Encinitas Sanitary Division (ESD)
- Leucadia Wastewater District (LWWD)
- Cardiff Sanitary Division (CSD)

The two treatment facilities are:

- San Elijo Water Reclamation Facility (SEWRF)
- Encina Water Pollution Control Facility (EWPCF)

The SEWRF treats over 50% of the wastewater to a tertiary level for recycled water use. A small portion of treated secondary effluent from the EWPCF is pumped to two water reclamation facilities for further treatment. The two treatment facilities are:

- Carlsbad Water Recycling Facility (Carlsbad WRF)
- Gafner Water Recycling Facility (Gafner WRF)

The District purchases recycled water that is treated at the SEWRF in an effort to reduce its dependence on imported water.

² http://www.sejpa.org/index.php?parent_id=59&page_id=61

6.5.2. Wastewater Collection, Treatment, and Disposal

CWC 10633

(a) (Describe) the wastewater collection and treatment systems in the supplier's service area, including a quantification of the amount of wastewater collected and treated and the methods of wastewater disposal.

CWC 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.

The District provides potable water and recycled water to communities in Old Encinitas, Leucadia, Cardiff, and portions of New Encinitas. Wastewater from these areas is collected by ESD, CSD, and LWWD. The CSD and the ESD are divisions of the City of Encinitas.

Encinitas Sanitary Division (ESD)

The ESD serves the westerly central portion of the City of Encinitas, which includes the communities of Old Encinitas, portions of Leucadia, and New Encinitas. Wastewater is generated from mainly residential users and some light commercial users. Approximately one third of wastewater within the District's service area is collected by ESD and delivered to the EWPCF for treatment.

Cardiff Sanitary Division (CSD)

The CSD serves the southern and easterly portions of the City of Encinitas, which includes the communities of Cardiff, Olivenhain, portions of the Rancho Santa Fe Community Services District (RSFCSD), and the City of Solana Beach. Wastewater is generated from mainly residential units and some light commercial users. Approximately one third of wastewater from the District's service area is collected from CSD and pumped or conveyed to the SEWRF for treatment.

Leucadia Wastewater District (LWWD)

The LWWD serves the remaining areas in the City of Encinitas, which includes communities from Leucadia and New Encinitas, and communities in La Costa and Carlsbad. Wastewater collected from LWWD is also delivered to the EWPCF for treatment. The ESD and LWWD are members of the Encina Joint Powers Authority (JPA). LWWD owns approximately 20 percent of the treatment capacity at the EWPCF, which is approximately 8,070 AFY. LWWD owns and operates the Gafner WRP to treat secondary effluent from the EWPCF to a tertiary level for recycled water use.

Encina Wastewater Authority (EWA)

The EWA is a joint powers authority that operates and maintains the EWPCF, ocean outfall, a biosolids facility, and two lift stations, located in Carlsbad. The member agencies of the EWA are the Buena Sanitation District, City of Carlsbad, City of Encinitas, LWWD, Vallecitos Water

District, and the City of Vista. Each EWA member agency has capacity rights to the EWPCF and ocean outfall system. The City of Encinitas is allowed to deliver approximately 2,018 AFY of wastewater to the EWPCF and the outfall, with a peaking factor below 2.76.

Encina Water Pollution Control Facility (EWPCF)

The EWPCF provides full secondary treatment, sludge handling, and disposal through a deep ocean outfall. Some treated secondary effluent from EWPCF is delivered to either the Carlsbad WRP or the Gafner WRP for further treatment to tertiary standard for recycled water use. The EWPCF is a conventional activated sludge wastewater treatment plant with a treatment capacity of 45,396 AFY liquid and 48,759 AFY solids.

The EWPCF produces about 1,121 AFY of recycled water onsite. This water is used in the plant and replaces potable water that would have to be purchased. Recycled water uses include water used to wash down equipment, to irrigate landscaping, co-generation engine cooling, and to control odor.

Carlsbad Water Recycling Facility Reclamation Plant (Carlsbad WRF)

EWA staff operates the Carlsbad WRF which is located adjacent to the EWPCF. Secondary eluent from the Encina WPCF is diverted from the ocean outfall and delivered to the Carlsbad WRF for tertiary treatment. The construction of this four million gallon per day recycled water plant was completed in 2005. The Carlsbad WRF supplies recycled water to the southwestern part of the City of Carlsbad.

Gafner Water Recycling Facility (Gafner WRF)

The Gafner WRF is owned and operated by the Leucadia Wastewater District. As LWWD's service area population grew, LWWD joined the Encina Joint Powers Authority in 1971 and became partial owner of the EWPCF. In 1993, the LWWD upgraded the Gafner WRF to meet new regulatory standards for recycled water. LWWD opted to decommission the original primary and secondary facilities in 1997, and began piping treated secondary effluent from the EWPCF to the new Gafner WRF. The Gafner WRF currently produces 85 million gallons of recycled water per year, which is used to irrigate the La Costa Resort & Spa Golf Course, and has a total production capacity of up to 1,250 AF of recycled water per year.

San Elijo Joint Powers Authority (SEJPA)

The SEJPA is a joint powers authority that owns and operates the SEWRF located in Cardiff. The SEJPA also operates and maintains eight wastewater lift stations and shares ownership of the San Elijo Ocean Outfall with the City of Escondido. The member agencies of the SEJPA are the City of Encinitas and the City of Solana Beach. Each SEJPA member agency has 50 percent treatment capacity in the SEWRF. The RSFCS D leases 280 AFY capacity. The SEWRF has a capacity of 5,885 AFY; therefore, the City of Encinitas is allowed to deliver 2,802 AFY of wastewater to the plant for treatment.

San Elijo Water Reclamation Facility (SEWRF)

The SEWRF is an activated sludge secondary treatment plant with a rated capacity of 5,885 AFY. Influent wastewater is conveyed to the WRF through three force mains and one gravity main. Flow from Cardiff enters the WRF from the north and south. Flow from Solana Beach enters the WRF from the south. Wastewater from the area east of Interstate 5 is conveyed to the WRF through the Olivenhain force main. Each incoming line is metered separately and the flow is recorded. The incoming sewer lines discharge into an influent junction box.

Completed in August 2000, the tertiary facilities of the plant began to produce up to 7.61 acre-feet of Title 22 recycled water per day. In 2013, Microfiltration (MF) and Reverse Osmosis (RO) were added to the process and the capacity was increased to 9.27 acre-feet per day. Ultimately, the tertiary facilities may be expanded to treat 5,885 AFY. Recycled water is sold to the District, the SFID, the City of Del Mar (Del Mar), and the Olivenhain Municipal Water District. The District's one-million-gallon Oak Crest Park Reservoir has been renovated for recycled water storage.

Wastewater that is not recycled is discharged to the ocean through the 8,000 foot long San Elijo Ocean Outfall. The SEJPA discharges approximately 1,385 AFY of secondary effluent to the ocean outfall, which is approximately 50% of the current influent flow.

Table 6-2 summarizes the wastewater collected within the District's service area by each of the sanitary agencies.

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

<input type="checkbox"/> There is no wastewater collection system. The supplier will not complete the table below.						
Percentage of 2015 service area covered by wastewater collection system <i>(optional)</i>						
Percentage of 2015 service area population covered by wastewater collection system <i>(optional)</i>						
Wastewater Collection			Recipient of Collected Wastewater			
Name of Wastewater Collection Agency	Wastewater Volume Metered or Estimated?	Volume of Wastewater Collected from UWMP Service Area 2015	Name of Wastewater Treatment Agency Receiving Collected Wastewater	Treatment Plant Name	Is WWTP Located Within UWMP Area?	Is WWTP Operation Contracted to a Third Party? <i>(optional)</i>
<i>Add additional rows as needed</i>						
Cardiff Sanitary Division	Estimated	1,399	San Elijo Joint Powers Authority	San Elijo Water Reclamation Facility	Yes	No
Encinitas Sanitary Division	Estimated	1,166	Encina Wastewater Authority	Encina Water Pollution Control Facility	No	Yes
Leucadia wastewater District	Estimated	1,557	Encina Wastewater Authority	Encina Water Pollution Control Facility	No	Yes
Total Wastewater Collected from Service Area in 2015:		4,122				

The District does not treat its wastewater directly to a tertiary level for recycled water as the wastewater within the District's service area is collected together with wastewater from outside the service area such as City of Carlsbad and City of Solana Beach and treated at different treatment plants. Wastewater treated and discharged from each treatment facility is summarized in Table 6-3.

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

Wastewater Treatment Plant Name	Discharge Location Name or Identifier	Discharge Location Description	Wastewater Discharge ID Number (optional)	Method of Disposal	Does This Plant Treat Wastewater Generated Outside the Service Area?	Treatment Level	2015 volumes			
							Wastewater Treated	Discharged Treated Wastewater	Recycled Within Service Area	Recycled Outside of Service Area
<input type="checkbox"/> No wastewater is treated or disposed of within the UWMP service area. The supplier will not complete the table below.										
<i>Add additional rows as needed</i>										
San Elijo Water Pollution Control Facility	Cardiff By the Sea	Within the District's service area, a beach community located in City of Encinitas		Ocean outfall	Yes	Tertiary	2,775	1,331	738	706
Encina Water Pollution Control Facility	City of Carlsbad	North adjacent to the City of Encinitas		Ocean outfall	Yes	Secondary, Undisinfected	29,558	25,938	0	3,620
Total							32,333	27,269	738	4,326

6.5.3. Recycled Water System

CWC 10633

(c) (Describe) the recycled water currently being used in the supplier's service area, including, but not limited to, the type, place, and quantity of use.

The District's wastewater is treated at the SEWRF and the EWPCF. The District purchases recycled water from SEJPA to supply its customers. As mentioned in the previous section, SEJPA is responsible for the operation and maintenance of the recycled water treatment plant and the distribution system up to the point of delivery, and the District is responsible for the recycled water meter and customer billing.

Recycled water produced onsite at the EWPCF is used in the plant, and approximately 250 AF of the secondary treated effluent is delivered to the Gafner WRF for tertiary treatment. The further treated water is used to irrigate the La Costa Resort & Spa Golf Course, which is within the City of Carlsbad. Details of the agencies that are involved in the recycled water system collection, treatment, and distribution have been discussed in the previous sections.

A map of the Recycled Water System within the District's service area is shown in Figure 4 in Chapter 3, Section 3.2.

6.5.4. Recycled Water Beneficial Uses

CWC 10633

(d) (Describe and quantify) the potential uses of recycled water, including, but not limited to, agricultural irrigation, landscape irrigation, wildlife habitat enhancement, wetlands, industrial reuse, groundwater recharge, indirect potable reuse, and other appropriate uses, and a determination with regard to the technical and economic feasibility of serving those uses.

CWC 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 pursuant to this subdivision.

Currently, the District provides recycled water to the Encinitas Ranch Golf Course, landscaped traffic medians, homeowner associations' common areas and a number of parks in the city.

The District provides both potable water and recycled water to the City of Encinitas, and 44 percent is recycled water.³ In 2015, The District sold 738 AFY of recycled water.

The District's recycled water is currently used for non-potable reuse, including landscaping irrigation and golf course irrigation. Table 6-4 provides the beneficial use information for recycled water delivered within the District's service area.

³ <http://www.ci.encinitas.ca.us/index.aspx?recordid=885&page=30>

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



Recycled water is not used and is not planned for use within the service area of the supplier.
The supplier will not complete the table below.

Name of Agency Producing (Treating) the Recycled Water:		San Elijo Joint Powers Authority							
Name of Agency Operating the Recycled Water Distribution System:		San Elijo Joint Powers Authority							
Supplemental Water Added in 2015		1.84 AF							
Source of 2015 Supplemental Water		San Dieguito Water District							
Beneficial Use Type	General Description of 2015 Uses	Level of Treatment	2015	2020	2025	2030	2035	2040 (opt)	
Agricultural irrigation									
Landscape irrigation (excludes golf courses)		Tertiary	404	430	450	450	450		
Golf course irrigation	Encinitas Ranch Golf Course	Tertiary	334	300	300	300	300		
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:	738	730	750	750	750	0	

*IPR - Indirect Potable Reuse

According to the **California Code of Regulations, Title 22, Section 60301.200**, landscape irrigation includes irrigation of streetscapes, residences, parks, schools, cemeteries, churches, slope protection, or public facilities. The District provides recycled water to most of the sectors mentioned above.

The District has targeted irrigation areas along freeway and road medians for recycled use. The Interstate 5 corridor through the City of Encinitas has been converted to recycled water use by California Department of Transportation (CalTRANS). Various road medians within the City of Encinitas are now using recycled water as their source of irrigation. The District continues to condition City of Encinitas projects in utilizing recycled water use for irrigation.

City parks and school yards have also been targeted for recycled water use. The City of Encinitas has converted the Paul Ecke Sports Park and the Encinitas Community Park to use recycled water. The Encinitas Community and Senior Center, completed in 2001, incorporated recycled water for the landscape irrigation. The San Dieguito Academy School, Ocean Knoll Elementary School, Oak Crest Middle School, Sunset Continuation School, and the Ada Harris School have also converted their field areas to utilize recycled water.

The District has pursued the conversion of landscape areas from commercial and homeowners' associations to recycled water use. The many commercial areas within the Saxony Road service line are now using recycled water for their landscaped areas. Various other homeowners' associations now utilize recycled water.

Golf course irrigation has been classified as a separate category from landscape irrigation. The Encinitas Ranch Golf Course (ERGC) is the only golf course in the District and has been utilizing recycled water for irrigation since 2000. The ERGC is the largest user of recycled water with a demand of approximately 300 acre-feet per year. The ERGC pumps the recycled water from a feature pond on the golf course to be used for irrigation.

The District is planning to expand its recycled water use to include agricultural irrigation. Even though the agricultural market within the District has steadily declined, there is still a potential for recycled water use within this category. Agricultural customers have expressed interest in the use of recycled water, but they do have concerns regarding the quality of the water and the effects it may have on their product. The District and the SEJPA will work closely with agricultural customers to study the effects of recycled water on various agricultural products. Such studies should increase the confidence of agricultural customers in recycled water.

Based on the **Recycled Water Optimization and Expansion Study** conducted by SEJPA in 2005, the recycled water demand of the District can be potentially increased to 856 AFY. Since then, the recycled water projections have been revised. Based on the District's latest recycled water use meter data, recycled water demand is projected to be 730 AFY by 2020, and increase to approximately 750 AFY by 2035.

In the 2010 UWMP, the District projected 600 AFY of recycled water use for 2015; however, the actual recycled water use for 2015 was 738 AFY, which is 23 percent more than what was

projected. Table 6-5 compares the 2010 recycled water use projection for 2015 with the actual recycled water use for 2015 based on the use types.

According to the **Potable Reuse Feasibility Study** conducted by SEJPA in March 2016, the District, with SEJPA and SFID, are collaborating to propose a regional potable reuse project that will utilize an advanced water purification facility to provide approximately 4,480 AFY of potable reuse flows to augment the San Dieguito Reservoir. The project is expected to provide 1,120 AFY of potable reuse flows to augment the San Dieguito Reservoir in the near term. ⁴

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



Recycled water was not used in 2010 nor projected for use in 2015. The supplier will not complete the table below.

Use Type		2010 Projection for 2015	2015 Actual Use
Agricultural irrigation			
Landscape irrigation (excludes golf courses)		212	404
Golf course irrigation		334	334
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	<i>Treatment Plants</i>	54	
Total		600	738

NOTES:

⁴ http://www.sejpa.org/wpro_projects/sejpa/userfiles/Potable_Reuse_Feasibility_Study_March2016.pdf

6.5.5. Actions to Encourage and Optimize Future Recycled Water Use

CWC 10633

(f) (Describe the) actions, including financial incentives, 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.

CWC 10633

(g) (Provide a) plan for optimizing the use of recycled water in the supplier's service area, including actions to facilitate the installation of dual distribution systems, to promote recirculating uses, to facilitate the increased use of treated wastewater that meets recycled water standards, and to overcome any obstacles to achieving that increased use.

In an attempt to attract new recycled water customers, the District and SEJPA have offered numerous incentives. These incentives include recycled water prices set at least 15 percent below the cost of potable water, no capacity fees for recycled water meters, low-interest loans, and a guaranteed supply even during drought.

District staff is working closely with Encinitas Ranch HOA, Dramm & Echter Greenhouse, North Coast Business Park, Silverado Senior Living, Quail Park HOA, Cardiff Apartments, and West Hampton Cove HOA for conversion to recycled water.

In the ***Recycled Water Optimization and Expansion Study*** an assessment of the WRF was performed to ensure the long-term success of the District's recycled water program. A number of recycled water system improvements were identified in the study to enhance the ability to produce and distribute additional recycled water. These improvements will add flexibility to the system and improve its reliability.

The SEWRF has an initial capacity of approximately 2,242 AFY when it was first put online in 1966. The facility was upgraded to include a 2,778 AFY tertiary treatment system for Title 22 recycled water treatment and distribution in 2000. The construction of an Advanced Water Purification facility for enhanced Title 22 treatment with capacity of 605 AFY was completed in 2013, which increased the facility's treatment capacity for recycled water to 3,383 AFY. The SEWRF recently performed a facility condition assessment, and the recycled water facilities are in fairly good condition. SEJPA determined that upgrades to the Advanced Water Purification (AWP) facility and the recycled water distribution pumps will be needed to ensure proper operation and production of high-quality recycled water.

Improvements to the AWP include installation of additional membranes to the reverse osmosis skid to increase capacity by 560 AFY. SEJPA also plans to investigate and implement means to increase the chlorine contact basin (CCB) capacity in order to increase production of recycled water.

On-site storage for recycled water outside of the recycled water pump station is limited in SEWRF, so SEJPA will investigate an increase to on-site storage for either recycled water or a

future potable water supply to support future potential projects such as construction of a potable reuse facility and a brackish water treatment facility.

Table 6-6 Retail: Methods to Expand Future Recycled Water Use			
<input type="checkbox"/>	Supplier does not plan to expand recycled water use in the future. Supplier will not complete the table below but will provide narrative explanation.		
	Provide page location of narrative in UWMP		
Name of Action	Description	Planned Implementation Year	Expected Increase in Recycled Water Use
Incentives for Recycled Water Customers	Offer incentives such as low recycled water price, no capacity fees on recycled water meters, low-interest loans, etc. to attract more recycled water customers	2015-2035	50
Total			50
NOTES:			

6.6. Desalinated Water Opportunities

CWC 10631

(h) Describe the opportunities for development of desalinated water, including, but not limited to, ocean water, brackish water, and groundwater, as a long-term supply.

A 50-mgd seawater desalination plant facility at the Encina Power Station in the City of Carlsbad became operational on December 14, 2015, and the SDCWA approved a 30-year Water Purchase Agreement to purchase up to 56,000 acre-feet of desalinated seawater from the plant per year. This is equivalent to about 8 percent of the San Diego region’s projected water demand in 2020. The District does not plan to directly purchase desalinated water at this time.

6.7. Exchanges or Transfers

CWC 10631

(d) Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis

The District has numerous interconnects to OMWD's water distribution system that can be utilized in an emergency. The District does not regularly transfer water to other agencies.

6.8. Future Water Projects

CWC 10631

(g) ...The urban water supplier shall include a detailed description of expected future projects and programs... that the urban water supplier may implement to increase the amount of the water supply available to the urban water supplier in average, single-dry, and multiple-dry water years. The description shall identify specific projects and include a description of the increase in water supply that is expected to be available from each project. The description shall include an estimate with regard to the implementation timeline for each project or program.

In the District's 2010 Water Master Plan, a project was proposed to construct a 12-inch water main extension in Manchester Avenue from Ocean Cove Drive to Via Poco and install an emergency two-way interconnection with OMWD. This project provided fire protection to the area and added redundancy to receive or deliver potable water between the districts in the event of a water main break or other disruption in service. The construction was completed in December of 2011.

The District, together with SEJPA and SFID, recently proposed a regional potable reuse project and completed a potable reuse feasibility study in March 2016. The goal of this project is to utilize an advanced water purification facility to provide 4,484 AFY of potable reuse flows to augment the San Dieguito Reservoir in order to increase the District's local water supply and reduce the District's dependence on imported water.

This project requires a wastewater influent flow of 5,885 AFY to produce 4,484 AFY of tertiary water. The SEJPA has a maximum recycled water demand of 2,578 AFY, which means a total of at least 8,463 AFY of wastewater influent is required to meet both the 5,885 AFY target of the reservoir augmentation and the current recycled water demand. SEJPA currently treats 3,475 AFY of wastewater to secondary level and 3,138 AFY of wastewater to tertiary level, so additional wastewater flows would be needed, or the recycled water customers would need to be served from other sources. The recycled water facilities currently have a capacity of 3,340 AFY.

SEJPA plans to upgrade the recycled water facilities at the SEWRF, including replacement of the recycled water distribution pumps, improvements to the AWP, and increase of on-site

storage. Additional membranes will be installed to the reverse osmosis skid of the AWP, and this will increase the capacity by 560 AFY.

Table 6-7 Retail: Expected Future Water Supply Projects or Programs						
<input type="checkbox"/>	No expected future water supply projects or programs that provide a quantifiable increase to the agency's water supply. Supplier will not complete the table below.					
<input checked="" type="checkbox"/>	Some or all of the supplier's future water supply projects or programs are not compatible with this table and are described in a narrative format.					
	Provide page location of narrative in the UWMP					
Name of Future Projects or Programs	Joint Project with other agencies?		Description (if needed)	Planned Implementation Year	Planned for Use in Year Type	Expected Increase in Water Supply to Agency
Reservoir Augmentation Project	Yes	SEJPA, SFID	Produce 4 MGD of advanced tertiary treated water to the San Dieguito Reservoir for Potable Water Reuse.	2025	Average Year	2,242

6.9. Summary of Existing and Planned Sources of Water

CWC 10631

(b) Identify and quantify, to the extent practicable, the existing and planned sources of water available to the supplier over the same five-year increments described in subdivision 10631(a).

(4) (Provide a) detailed description and analysis of the amount and location of groundwater that is projected to be pumped by the urban water supplier. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.

The District provides potable water and recycled water to its customers. Potable water sources include imported treated and untreated water purchased from the SDCWA and local surface water from Lake Hodges. Imported untreated water and surface water from Lake Hodges are

treated at the R.E. Badger Filtration Plant. The District purchases recycled water from the SEJPA. Table 6-8 summarizes the actual source and volume of water for 2015.

Table 6-8 Retail: Water Supplies — Actual

Water Supply		2015		
Description	Additional Detail on Water Supply	Actual Volume	Water Quality	Total Right or Safe Yield (optional)
Purchased or Imported Water		5,749	Drinking Water	
Supply from Storage		603	Drinking Water	
Recycled Water		738	Recycled Water	
Total		7,090		0
NOTES:				

6.10. Climate Change Impacts to Supply

The District’s water supply is obtained locally from Lake Hodges and imported from the SDCWA, which comes from the Colorado River Aqueduct and from the Delta via the State Water Project.

According to MWD’s 2015 Draft UWMP, the Colorado River is experiencing a historic 16-year drought and supply is affected by less snowpack than normal. The overall storage levels in the Colorado River system have steadily decreased, increasing the likelihood of water supply shortages in the future. The 2013 IRWM Plan stated that approximately 20 percent to 25 percent decrease in imported water supply is projected, which would result in a significant impact on the water supply of the San Diego region. This was identified as the highest priority issue.

The water supplies from the State Water Project (SWP) are also affected by lower snowpack levels statewide. MWD only received 20 percent of its contracted water supply from the State Water Project in 2015. Up to a 25 percent decrease is projected in water supply from the SWP in the future.

Due to the drought, there are less rainfall events, which results in less runoff captured in Lake Hodges. Local surface water supply from Lake Hodges has steadily declined over the past few

years, meaning the District needs to purchase more imported water from the Colorado River and the SWP. The overall storage levels in the Colorado River System have decreased, thus decreasing the availability of water supply in the future. Fewer rainfall events may also cause higher pollutant concentration in local runoff, which can have a negative impact on water quality. The District treats local surface water and imported untreated water to drinking water levels before distribution to ensure safe drinking water to its customers.

Efforts have been taken to make the water supply more sustainable on both a regional and local level. The Claude “Bud” Lewis Carlsbad Desalination Plant recently began service, and SDCWA has approved a 30-year Water Purchase Agreement to purchase up to 56,000 AFY of desalinated water from the plant to meet about 8 percent of the San Diego region’s projected water demand in 2020. This will reduce the region’s dependency on imported water and reduce the potential impacts on water supply due to drought. On a local level, the District continues to seek opportunities to convert existing potable water customers to recycled water, thus replacing imported water with a local, drought-proof water supply. The District is studying the feasibility of a potable reuse project, which could provide District customers with an additional local, drought-proof water supply source in the near future. Finally, the District continues to participate in water conservation programs that have proven to reduce customers’ water consumption over time.

Table 6-9 Retail: Water Supplies — Projected

Water Supply	Projected Water Supply <i>Report To the Extent Practicable</i>							
Description	2020		2025		2030		2035	
	Reasonably Available Volume	Total Right or Safe Yield <i>(optional)</i>	Reasonably Available Volume	Total Right or Safe Yield <i>(optional)</i>	Reasonably Available Volume	Total Right or Safe Yield <i>(optional)</i>	Reasonably Available Volume	Total Right or Safe Yield <i>(optional)</i>
Purchased or Imported Water	4,530		4,570		4,613		4,656	
Supply from Storage	2,432		2,432		2,432		2,432	
Recycled Water	730		750		750		750	
Total	7,692	0	7,752	0	7,795	0	7,838	0
NOTES:								

Chapter 7. Water Supply Reliability Assessment

California has been experiencing a drought since 2011. Approximately 32 percent of the State is currently experiencing exceptional drought, and 55 percent of the state is currently in extreme drought according to the U.S. Drought Monitor⁵. The majority of the areas that are experiencing extreme drought are from Southern California, which is where the District's service area is located.

To plan for long-term water supply reliability, planners examine an increasingly wide array of supply augmentation and demand reduction options to determine the best courses of action for meeting water service needs. Such options are generally evaluated using the water service reliability planning approach. It is important to know the District's current water supply portfolio and assess the long-term reliability of the District's water supplies to ensure sufficient water to meet customers' demand.

The costs of demand management or supply augmentation options to reduce the frequency and severity of shortages are now high enough that District planners must look more carefully at the costs of unreliability to make the best possible estimate of the net benefit of taking specific actions, hence, the term "reliability planning."

7.1. Constraints on Water Sources

CWC 10631

(c) (2) For any water source that may not be available at a consistent level of use, given specific legal, environmental, water quality, or climatic factors, describe plans to supplement or replace that source with alternative sources or water demand management measures, to the extent practicable.

CWC 10634

The plan shall include information, to the extent practicable, relating to the quality of existing sources of water available to the supplier over the same five-year increments as described in subdivision (a) of Section 10631, and the manner in which water quality affects water management strategies and supply reliability.

Since 2014, as the drought became more severe, imported water made up a larger portion of the District's potable water supply. It increased from 36 percent of the potable water supply in 2013 to more than 90 percent of the potable water supply in 2015. Local water supplies from Lake Hodges are especially vulnerable to drought conditions. Agricultural and urban/storm

⁵ <http://droughtmonitor.unl.edu/Home/StateDroughtMonitor.aspx?CA>

water runoff pose potential water quality issues to the local water supply. However, local water is treated at the R.E. Badger Filtration Plant before distribution.

The District's imported water supplies are provided by SDCWA. SDCWA purchases water from the Metropolitan Water District of Southern California (MWD), and MWD imports water from the Colorado River and the Sacramento River Delta through the State Water Project. According to the 2015 Draft UWMP prepared by MWD (MWD 2015 UWMP) and the 2015 State Water Project Final Delivery Capacity Report, only 51 percent of the average runoff for a normal water year was produced in 2015 due to the continuous drought, resulting in below-average storage levels in the State's reservoirs. In 2015, local water supply from the State Water Project only accounted for 20 percent of the MWD's contracted water supplies. The likelihood of a water supply shortage increases as both California and the Colorado River are experiencing drought conditions.

It is important to determine the available water supply from the State Water Project in order to better allocate other sources of water supply. Climate change increases the variability in floods and droughts, and sea level rise can increase the complication of managing the salinity levels in the Delta. In addition, the Delta faces the potential of levee failure which could result in flooding and water quality problems. Most of the original levees of the Delta are about 150 years old and were simply built without engineering design. These levees are vulnerable to failure that result from the combination of high river inflows and bad weather, or a catastrophic event such as an earthquake. Levee failure will result in large amount of salt water pull into the Delta and create water quality problems. If severe, water export from the Delta may drastically decrease or even stop.

According to the MWD 2015 UWMP, the Colorado River is experiencing a historic 16-year prolonged drought that is causing the Colorado River system storage to be reduced to 50 percent of capacity. This reduction increases the likelihood of water supply shortages in the future.

The District is one of the 24 member retail agencies of the SDCWA. Member agency status entitles the District to directly purchase water for its needs from the SDCWA on a wholesale basis. The District looks to the SDCWA to ensure, to the best of its ability, that adequate amounts of imported water will be available to satisfy future water requirements.

To maximize the reliability of the region's water supply, the SDCWA is executing a long-term strategy to diversify the region's supply sources, make major investments in the region's water delivery and storage system, and improve water use efficiency.

As part of their conservation effort, the District adopted a Water Supply Shortage Response Program (Appendix H). This ordinance was intended to be consistent with the UWMP as well as the Water Authority's Drought Management Plan (DMP). It establishes regulations to be implemented during times of declared water shortages, which correspond to the stages identified in the Water Authority's DMP. The District also established a Water Use Efficiency

Program to provide conservation outreach, education, and incentives to reduce customer's water consumption.

The SDCWA, together with the City of San Diego and the County of San Diego, formed the Integrated Regional Water Management Group (IRWMG) to develop an Integrated Regional Water Management (IRWM) Plan to address all aspects of water management and planning throughout the region. The 2013 San Diego IRWM Plan has addressed Resource Management Strategies (RMS) on water demand reduction, improvement of operational efficiency and transfers, diversification and increase of water supply, improvement of water quality, practice of resources stewardship, and improvement of flood management.

The MWD is working toward its goal of long-term regional water supply reliability and focuses on pursuing long-term solutions for the Delta. The MWD also plans to develop storage programs related to the State Water Project and the Colorado River, develop storage and groundwater management programs within the Southern California region, increase water conservation, diversify the region's supply sources, and develop water supply management programs outside of the region. To better plan the regional water supply and ensure regional water supply reliability, MWD implemented an Integrated Water Resources Planning (IRP) process in 1996. The IRP established a long-term, comprehensive water resources strategy to provide a reliable and affordable water supply within the region.

7.2. Reliability by Type of Year

CWC 10631

(c) (1) Describe the reliability of the water supply and vulnerability to seasonal or climatic shortage, to the extent practicable, and provide data for each of the following:

- (A) an average water year,*
- (B) a single dry water year,*
- (C) multiple dry water years.*

The purpose of drought planning is to consider water supplies during single-dry and multiple-dry years. Single-dry and multiple-dry year conditions are usually based on historical records of annual runoff from a particular watershed. A multiple-dry year period is generally three or more consecutive years with the lowest average annual runoff. SDCWA selected year 2015 as a single-dry year and 2013 to 2015 as multiple-dry years in its 2015 UWMP. The District is one of the SDCWA's member agencies. To be consistent with the SDCWA's UWMP, the District also selected 2015 as a single-dry year and 2013 to 2015 as multiple-dry years. SDCWA uses water supply data from 1960 to 2013 to calculate the water supply for normal year, but the District does not have sufficient data available for such a long period. Instead, the District selects 2006 to 2013 as the base years to calculate the available supplies for average year. Water supplies of the single-dry year and the multiple-dry years are compared with the

average water supply of 2006 to 2013. Table 7-1 shows the District's basis of water year data including the actual water supply for each base year.

Table 7-1 Retail: Basis of Water Year Data			
Year Type	Base Year <i>If not using a calendar year, type in the last year of the fiscal, water year, or range of years, for example, water year 1999-2000, use 2000</i>	Available Supplies if Year Type Repeats	
		<input type="checkbox"/>	Quantification of available supplies is not compatible with this table and is provided elsewhere in the UWMP. Location
		<input checked="" type="checkbox"/>	Quantification of available supplies is provided in this table as either volume only, percent only, or both.
		Volume Available	% of Average Supply
Average Year	2006-2013	7169	100%
Single-Dry Year	2015	6352	89%
Multiple-Dry Years 1st Year	2013	6595	92%
Multiple-Dry Years 2nd Year	2014	6734	94%
Multiple-Dry Years 3rd Year	2015	6352	89%
Multiple-Dry Years 4th Year <i>Optional</i>			
Multiple-Dry Years 5th Year <i>Optional</i>			
Multiple-Dry Years 6th Year <i>Optional</i>			
Agency may use multiple versions of Table 7-1 if different water sources have different base years and the supplier chooses to report the base years for each water source separately. If an agency uses multiple versions of Table 7-1, in the "Note" section of each table, state that multiple versions of Table 7-1 are being used and identify the particular water source that is being reported in each table.			
NOTES:			

Historically, a reduction of 11 percent of water was supplied during a single-dry year event. During multiple-dry year conditions, supply was 8 percent less than the average supply the first year, then 6 percent and 11 percent below normal supply in the following two years.

7.3. Supply and Demand Assessment

CWC 10635

(a) Every urban water supplier shall include, as part of its urban water management plan, an assessment of the reliability of its water service to its customers during normal, dry, and multiple dry water years. This water supply and demand assessment shall compare the total water supply sources available to the water supplier with the total projected water use over the next 20 years, in five-year increments, for a normal water year, a single dry water year, and multiple dry water years. The water service reliability assessment shall be based upon the information compiled pursuant to Section 10631, including available data from state, regional or local agency population projections within the service area of the urban water supplier.

The Urban Water Management Planning Act requires every urban water supplier to assess the reliability of its water supply for normal, single-dry and multiple-dry years. Single-dry and multiple-dry year conditions were based on the District's historical water use records. District customers have historically conserved water during single and multiple-dry years, so the forecast demands are highly conservative. The District anticipates no reduction of local water supplies for a single or multiple-dry year event. Even during a dry year, it is assumed there would be some rain and therefore some refilling of the lake.

Should there be a loss of local water during a multiple-dry year event, the District will need to purchase a higher percentage of imported water from the SDCWA. It is assumed that the SDCWA will be able to meet the District's needs in a single-dry year since the SDCWA's **2010 Urban Water Management Plan (2010 UWMP)** states that "if the Water Authority and member agencies' supplies are developed as planned, along with achievement of the SBX7-7 retail conservation target, no shortages are anticipated within the Water Authority's service area in a single dry-year through 2030." During a dry year, per the Water Authority's **2010 UWMP**, "some level of shortage could potentially be experienced." In the event of a shortage, the Water Authority will utilize their carryover storage supply. If shortages still occur, "additional regional shortage management measures, consistent with the Water Authority's Water Shortage and Drought Response Plan, will be taken to fill the supply shortage." The District also has a Water Supply Shortage Response Program (Article 29), which has been supplied as Appendix H.

Table 7-2 compares current and projected water supply and demand. It indicates that in average precipitation years, the District has sufficient water to meet its customers' needs, through 2035. This is based on continued commitment to conservation programs, maintaining current adjudicated surface water rights, additional imported water available when needed from SDCWA, and the supply of recycled water.

Table 7-2 Retail: Normal Year Supply and Demand Comparison					
	2020	2025	2030	2035	2040 (Opt)
Supply totals (autofill from Table 6-9)	7,692	7,752	7,795	7,838	0
Demand totals (autofill from Table 4-3)	7,559	7,618	7,660	7,703	0
Difference	133	134	135	135	0
NOTES:					

Table 7-3 compares the District’s projected water supply and demand during a single dry year.

Table 7-3 Retail: Single Dry Year Supply and Demand Comparison					
	2020	2025	2030	2035	2040 (Opt)
Supply totals	8,005	8,068	8,112	8,157	
Demand totals	8,005	8,068	8,112	8,157	
Difference	0	0	0	0	0
NOTES:					

The single-dry year scenario investigates the effect of an isolated single-dry period similar to this year occurring in the future. Water demand is determined to be increased by 5.9 percent in the SDCWA’s 2010 UWMP. The District assumes the same percentage of increase in water demand for a single dry year.

To meet these demands, the District will continue to supply customers with surface water from Lake Hodges consistent with the agreement as well as the projected recycled water supply. To make up the remaining supply, the District will purchase additional water from SDCWA.

Table 7-4 compares the District’s projected water supply and demand during multiple dry years.

Table 7-4 Retail: Multiple Dry Years Supply and Demand Comparison						
		2020	2025	2030	2035	2040 (Opt)
First year	Supply totals	7,076	7,131	7,170	7,210	
	Demand totals	6,501	6,552	6,588	6,624	
	Difference	575	579	582	585	0
Second year	Supply totals	7,225	7,281	7,322	7,362	
	Demand totals	6,501	6,552	6,588	6,624	
	Difference	724	730	734	738	0
Third year	Supply totals	6,815	6,868	6,906	6,944	
	Demand totals	6,501	6,552	6,588	6,624	
	Difference	315	317	318	320	0
Fourth year <i>(optional)</i>	Supply totals					
	Demand totals					
	Difference	0	0	0	0	0
Fifth year <i>(optional)</i>	Supply totals					
	Demand totals					
	Difference	0	0	0	0	0
Sixth year <i>(optional)</i>	Supply totals					
	Demand totals					
	Difference	0	0	0	0	0
NOTES:						

The hydrologic conditions for multiple-dry years 2013 to 2015 are repeated for the supply projections of future years. The multiple-dry period supply and demand comparison examines the effect of a historical multiple-dry period occurring in the future. The supply production numbers for this period indicate that the District's supply reduces by 8 percent the first year, by 6 percent the second year, and by 11 percent the third year as compared with normal supply.

During an extended event, an assumption was made that local supplies will continue to supply according to the agreement. Recycled water supply is expected to remain consistent with the normal-year projections. To make up the remaining supply, the District will purchase more water from SDCWA. Corresponding water management stages will be declared and water use restrictions and other drought actions will be implemented to reduce the water use during multiple dry years. Since these actions will be taken in effect gradually, an average of 14 percent reduction in water demand, half of the District's water use reduction goal, is assumed during the multiple-dry years.

According to the Water Authority's 2010 UWMP, "under the specific parameters assumed in the multiple dry years analysis, some level of shortage could potentially be experienced." In the event of a shortage, the SDCWA will utilize their carryover storage supply. If shortages still occur, "additional regional shortage management measures, consistent with the Water Authority's Water Shortage and Drought Response Plan, will be taken to fill the supply shortage." It is therefore expected that the District will be able to meet customer demands during a multiple-dry year event now and in the future.

7.4. Regional Supply Reliability

CWC 10620

(f) An urban water supplier shall describe in the plan water management tools and options used by that entity that will maximize resources and minimize the need to import water from other regions.

To maximize the reliability of the region's water supply, the SDCWA is executing a long-term strategy to diversify the region's supply sources, make major investments in the region's water delivery and storage system, and improve water use efficiency. In support of accomplishing the goal, SDCWA has undertaken a variety of supply planning efforts, such as the UWMP, Regional Water Facilities Master Plan (WFMP), and Integrated Regional Water Management Plan (IRWM Plan).

The SDCWA UWMP is prepared every five years to identify the region's water supply portfolio, forecast future water demand and supply, and update targets on water conservation. SDCWA updated its Regional WFMP in 2013 that evaluated the infrastructure requirements needed to meet its mission of providing a safe and reliable water supply to its member agencies. The Regional WFMP identifies capital improvements needed to deliver water in a reliable and cost-effective manner. The IRWM Plan was prepared in support of developing long-term water supply reliability, improving water quality, and protecting natural resources of the region. The

IRWM also identifies specific regional and watershed-based priorities for implementation projects and makes the region eligible for future rounds of grant funding for projects that were identified in the IRWM.

The region has seven major stream systems and runoff from these seven watersheds are stored in the 24 surface water reservoirs within the region. In order to better manage the region's local water supply, the water level of each reservoir is closely monitored and updated weekly.

In order to promote water conservation, SDCWA develops numerous programs and incentives for residents and business. A list of some of these programs and incentives is provided below:

Programs and incentives for residential customers are:

- Artificial Turf Discount Program
- California Friendly Landscape Training Classes
- Garden-Friendly Plant Fairs
- High-Efficiency Clothes Washer Rebates
- High-Efficiency Toilet Rebates
- Landscape Design for Homeowners
- Rain Barrel Rebates
- Rotating Sprinkler Nozzle Rebates
- Soil Moisture Sensor System Rebates
- WaterSmart Checkup

Programs and incentives for business customers are:

- Agricultural Water Management Program
- Artificial Turf Discount Program
- On-Site Retrofit Pilot Program
- Public Agency Landscape Program
- Sustainability Circles

SDCWA works closely with its 24 member agencies in developing local resources and conservation. Local water supplies are projected to meet more than one third of the region's water demand by 2020.

7.5. Water Sustainability Plan

Water is one of the most basic needs for life. District customers depend on it for their health, well-being, and public safety. Providing a reliable, sustainable supply of water is a principal function of the District. The Urban Water Management Plan (UWMP) provides the core elements for a water sustainability plan; however, the reporting structure for the UWMP is rather rigid, which makes it challenging to succinctly document the District's current and future efforts to achieve water sustainability. Therefore, the District has developed a Water Sustainability Plan to provide a clear picture of the District's overall plan for water sustainability. While the UWMP is updated every five years, the Water Sustainability Plan will be a "living" document that will be updated as conditions and/or objectives change.

The Water Sustainability Plan has been provided in Appendix J.

Chapter 8. Water Shortage Contingency Planning

During the 1976-77 drought, the District reduced consumption by approximately ten percent. This was achieved primarily by increased public information programs and distribution of water conservation kits.

During the height of the 1987-91 drought, the District cut water demand by 25 percent. This was due to a combination of mandatory rationing and the implementation of numerous water conservation measures now called Best Management Practices (BMP), which will be discussed later on in Chapter 9.

As California is currently in the fourth consecutive year of a persisting drought, the State Water Resources Control Board (SWRCB) approved regulations that included water conservation targets for urban water suppliers with 4 percent to 36 percent reduction of their daily water per capita use in 2013. The District set a goal of achieving a 28 percent reduction and approved drought actions in order to meet the District's conservation target.

The UWMP Act requires the inclusion of a contingency analysis of actions to be taken in response to a short-term water supply shortage, such as droughts and/or a catastrophic supply interruption. The SDCWA and its 24 member public agencies, including the District, have adopted Article 29 – Water Supply Shortage Response Program, which is attached as Appendix H. This ordinance establishes regulations on water management by the District and progressive restrictions on water use to be implemented for responding to water supply limitations resulting from declared water shortages or declared water shortage emergencies.

8.1. Stages of Action

CWC 10632

(a) The plan shall provide an urban water shortage contingency analysis that includes each of the following elements that are within the authority of the urban water supplier.

CWC 10632

(a) (1) Stages of action to be undertaken by the urban water supplier in response to water supply shortages, including up to a 50 percent reduction in water supply, and an outline of specific water supply conditions which are applicable to each stage.

The Water Supply Shortage Response Program establishes four levels of water supply shortage response actions to be implemented in times of shortage, as shown in Table 8-1. The four stages of actions are a sequential, regulatory program of increasingly stringent restrictions on the use of water delivered within the District. When the District declares that a particular stage is in effect, District customers must comply with all regulations contained in the declared stage or face a potential penalty.

**Table 8-1 Retail
Stages of Water Shortage Contingency Plan**

Stage	Complete Both	
	Percent Supply Reduction ¹ <i>Numerical value as a percent</i>	Water Supply Condition <i>(Narrative description)</i>
1	10 percent	Water Supply Shortage Watch Condition
2	20 percent	Water Supply Shortage Alert Condition
3	40 percent	Water Supply Shortage Critical Condition
4	More than 40 percent	Water Supply Shortage Emergency Condition
¹ One stage in the Water Shortage Contingency Plan must address a water shortage of 50 percent.		
NOTES:		

The District will monitor the projected local and imported supply of water and the demand for water. The District, in conjunction with the SDCWA and MWD, will then determine when a particular water management stage is required in order to mitigate water shortages.

Water shortages occur when the amount of water available from all sources is below the amount ordinarily available. Stages are determined by comparing the amount of water currently available to the District with the amount ordinarily available.

Article 29 establishes regulations to be implemented during the water shortage levels listed in Table 8-1 with increasing restrictions on water use in response to worsening drought conditions and decreasing available supplies. During a Water Supply Shortage Response Level 2 condition or higher, the water conservation measures and water use restrictions established by Article 29 are mandatory. Violations are subject to criminal, civil, and administrative penalties and remedies specified in this ordinance and as provided in District's Administrative Code.

The Water Supply Shortage Response Program was adopted by the District in August 2008 and was updated in April 2015. It was based on a model program developed by the SDCWA for its member agencies. Recently, the District declared a Water Supply Shortage Response Level 3 and has also approved other drought actions.

8.2. Prohibitions on End Uses

CWC 10632

(a) (4) Additional, mandatory prohibitions against specific water use practices during water shortages, including, but not limited to, prohibiting the use of potable water for street cleaning.

(5) Consumption reduction methods in the most restrictive stages. Each urban water supplier may use any type of consumption reduction methods in its water shortage contingency analysis that would reduce water use, are appropriate for its area, and have the ability to achieve a water use reduction consistent with up to a 50 percent reduction in water supply.

Health and Safety Code Section 115921

As used in this article the following terms have the following meanings:

(a) "Swimming pool" or "pool" means any structure intended for swimming or recreational bathing that contains water over 18 inches deep. "Swimming pool" includes in-ground and aboveground structures and includes, but is not limited to, hot tubs, spas, portable spas, and non-portable wading pools.

In accordance with California Urban Water Conservation Council Best Management Practice 13, the District prohibits gutter flooding, single pass cooling systems in new connections, non-recirculating systems in all new conveyer car wash and commercial laundry systems, and non-recycling decorative water fountains.

The District also supports efforts to develop state law regarding exchange-type water softeners that would: (1) allow the sale of only more efficient, demand-initiated regenerating (DIR) models; (2) develop minimum appliance efficiency standards that (a) increase the regeneration efficiency standard to at least 3,350 grains of hardness removed per pound of common salt used; and (b) implement an identified maximum number of gallons discharged per gallon of soft water produced; (3) allow local agencies, including municipalities and special districts, to set more stringent standards and/or to ban on-site regeneration of water softeners if it is demonstrated and found by the agency governing board that there is an adverse effect on the re-claimed water or groundwater supply. The District provides information about DIR and exchange-type water softeners in their educational efforts to encourage replacement of less efficient timer models.

Further, the District has declared that at no time shall water be wasted or used unreasonably. Unreasonable uses of water include, but are not limited to, the following:

- Failure to repair a water leak after notification from the District and opportunity to do so.
- Failure to stop water waste resulting from conditions such as inefficient landscape irrigation, excessive runoff, low head drainage, overspray of water flows onto non-targeted areas, overspray of water flows onto adjacent property, overspray and water flow onto non-irrigated areas, overspray and water flow onto roadways and adjacent structures.

Voluntary or mandatory water use restrictions and prohibitions to be implemented for each stage are listed in Table 8-2.

Table 8-2 Retail Only: Restrictions and Prohibitions on End Uses			
Stage	Restrictions and Prohibitions on End Users	Additional Explanation or Reference <i>(optional)</i>	Penalty, Charge, or Other Enforcement?
1	Other - Prohibit use of potable water for washing hard surfaces		No
1	Landscape - Restrict or prohibit runoff from landscape irrigation		No
1	Landscape - Limit landscape irrigation to specific times	Irrigate residential and commercial landscape before 8 a.m. and after 6 p.m. only	No
1	Other - Require automatic shut of hoses		No
1	CII - Other CII restriction or prohibition	Irrigate nursery and commercial growers' products before 10 a.m. and after 6 p.m. only	No
1	Water Features - Restrict water use for decorative water features, such as fountains	Use re-circulated water to operate ornamental fountains	No
1	Other - Prohibit vehicle washing except at facilities using recycled or recirculating water	Wash vehicles using a bucket and a hand-held hose with positive shut-off nozzle, or at a commercial site using re-circulating water	No
1	CII - Restaurants may only serve water upon request		No
1	CII - Lodging establishment must offer opt out of linen service		No

Table 8-2 Retail Only: Restrictions and Prohibitions on End Uses

Stage	Restrictions and Prohibitions on End Users	Additional Explanation or Reference (optional)	Penalty, Charge, or Other Enforcement?
1	Other - Prohibit use of potable water for construction and dust control	Use recycled or non-potable water for construction purposes	No
1	Landscape - Other landscape restriction or prohibition	No landscape irrigation during and 48 hours following measurable precipitation	No
2	Other	Implement conservation practices established in Level 1	Yes
2	Landscape - Limit landscape irrigation to specific days		Yes
2	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner	within 72 hours of notification	Yes
3	Other	Implement conservation practices established in Level 2	Yes
3	Other	Stop filling or re-filling ornamental lakes or ponds with expectation to aquatic life of significant value	Yes
3	Other - Prohibit vehicle washing except at facilities using recycled or recirculating water		Yes
3	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner	within 48 hours of notification	Yes

Table 8-2 Retail Only: Restrictions and Prohibitions on End Uses

Stage	Restrictions and Prohibitions on End Users	Additional Explanation or Reference <i>(optional)</i>	Penalty, Charge, or Other Enforcement?
4	Other	Implement conservation practices established in Level 3	Yes
4	Landscape - Prohibit all landscape irrigation		Yes
4	Other - Customers must repair leaks, breaks, and malfunctions in a timely manner	within 24 hours of notification	Yes
NOTES:			

8.3. Penalties, Charges, Other Enforcement of Prohibitions

CWC 10632

(a) (6) Penalties or charges for excessive use, where applicable

Any person who uses, causes to be used, or permits the use of water in violation of Article 29 is guilty of an offense punishable as established by the provisions of Article 29. Each day that a violation of this ordinance occurs is a separate offense. Violation of Article 29 may result in issuance of a warning notice, fines, restriction of service or discontinuance of service.

Administrative fines may be levied for each violation of a provision of this ordinance as follows:

1. A warning will be issued at the sole discretion of the General Manger for the first violation within the current twelve-month period from the most recent violation.
2. The customer will be fined one hundred dollars for a second violation within the current twelve-month period from the most recent violation.
3. The customer will be fined two hundred dollars for a third violation within the current twelve-month period from the most recent violation.
4. The customer will be fined five hundred dollars for each additional violation of this ordinance within the current twelve-month period from the most recent violation.

In addition, violation of a provision of Article 29 is subject to enforcement through installation of a flow-restricting device in the meter. Violation of the ordinance may result in being prosecuted as a misdemeanor punishable by imprisonment in the county jail for not more than 30 days or a fine not exceeding \$1,000, or by both as provided in Water Code Section 356.

8.4. Consumption Reduction Methods

CWC 10632

(a) (5) Consumption reduction methods in the most restrictive stages. Each urban water supplier may use any type of consumption reduction methods in its water shortage contingency analysis that would reduce water use, are appropriate for its area, and have the ability to achieve a water use reduction consistent with up to a 50 percent reduction in water supply.

When a Level 1 Water Supply Shortage Watch Condition is declared, the District will increase its public education and outreach efforts to increase the public awareness of the need to implement the water conservation practices. The District, in conjunction with local agencies and MWD, has some on-going rebate and incentive programs to help the residents within the District's service area to reduce water use and help the District to reach the targeted water reduction.

The District offers the WaterSmart Checkup program to provide homes or businesses with free checkups from certified irrigation professionals with recommendations of site-specific water savings. MWD offers rebates on water efficient devices for residential and commercial customers. Residents can apply for rebates for installation of high efficiency devices such as high-efficiency clothes washers, premium high-efficiency toilets, rotating nozzles, rain barrels, weather-based irrigation controllers, etc.

Commercial customers can receive rebates for installation of high efficiency devices on irrigation systems such as large rotary nozzles and in-stem flow regulators, plumbing fixtures such as plumbing flow control valves and laminar flow restrictors, and industrial use such as pH cooling tower controllers and cooling tower conductivity controllers.

The District periodically updates the available water conservation programs on the District's website and through other media to inform and encourage the public to conserve water. The District also implements drought rates to encourage customers to conserve water.

Table 8-3 lists the consumption reduction methods the District implements during each stage of action.

Table 8-3 Retail Only: Stages of Water Shortage Contingency Plan - Consumption Reduction Methods

Stage	Consumption Reduction Methods by Water Supplier	Additional Explanation or Reference <i>(optional)</i>
1	Increase Water Waste Patrols	
1	Expand Public Information Campaign	
2	Implement or Modify Drought Rate Structure or Surcharge	
2	Offer Water Use Surveys	
2	Provide Rebates on Plumbing Fixtures and Devices	
2	Provide Rebates for Landscape Irrigation Efficiency	
2	Provide Rebates for Turf Replacement	
2	Decrease Line Flushing	
2	Moratorium or Net Zero Demand Increase on New Connections	
NOTES:		

8.5. Determining Water Shortage Reductions

CWC 10632

(a) (9) A mechanism for determining actual reductions in water use pursuant to the urban water shortage contingency analysis.

The District maintains good records on water meter readings. Water use from all customers can be retrieved from historical water meter records, and the District performs meter accuracy testing and meter replacement on a regular and continuous basis to ensure meter accuracy. The District can estimate actual water savings from the implementation of a particular Water Supply Shortage Response Level by tracking and comparing the water use before and after the implementation of the Water Supply Response Level from the meter records.

8.6. Revenue and Expenditure Impacts

CWC 10632

(a) (7) An analysis of the impacts of each of the actions and conditions described in paragraphs (1) to (6), inclusive, on the revenues and expenditures of the urban water supplier, and proposed measures to overcome those impacts, such as the development of reserves and rate adjustments.

The District has established specific drought water rates that steadily increase voluntary or mandatory water use reductions at each water management stage. The District created the drought rate structure to ensure the District receives sufficient revenues to cover the costs associated with providing water service when water consumption decreases and to further encourage water conservation during periods of supply reductions. The District reviews its budget annually to identify and address any potential impacts from revenue or expenditure changes

8.7. Resolution or Ordinance

CWC 10632

(a) (8) A draft water shortage contingency resolution or ordinance.

The District adopted Article 29—Water Supply Shortage Response Program, a water shortage contingency ordinance, as required by the UWMP and in response to drought-induced water shortages. Article 29 is included in Appendix H. This ordinance establishes regulations on water management by the District and progressive restrictions on water use to be implemented for responding to water supply limitations resulting from declared water shortages or declared water shortage emergencies.

8.8. Catastrophic Supply Interruption

CWC 10632

(a) (3) Actions to be undertaken by the urban water supplier to prepare for, and implement during, a catastrophic interruption of water supplies including, but not limited to, a regional power outage, an earthquake, or other disaster.

In addition to water demand reductions that would be implemented during a catastrophic supply interruption, the District also maintains partial ownership of the REB Plant and access to substantial raw water reserves. The District also has access to a filtered water SDCWA connection and numerous emergency interconnections with OMWD. Recently, the District constructed a parallel 54” transmission supply pipeline from the R.E. Badger Filtration Plant to add reliability and redundancy to the water system. The District recently installed an additional emergency interconnection with OWMD at Manchester Avenue to ensure sufficient water for fire protection and to add redundancy to the District’s water system.

In addition, there are three (3) active water reservoirs within the District. The District has full ownership of two (2) reservoirs, the Balour Reservoir and the Encinitas Ranch Reservoir, and shares ownership of the Badger Clearwell and the Wanket Tank. The Wanket Tank is currently out of service.

8.9. Minimum Supply Next Three Years

CWC 10632

(a) (2) 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’s water supply.

Minimum supply for the next three years is calculated by assuming the same hydrology of the historical multiple-dry year period and interpolating the water supply between 2015 to 2020. Table 8-4 summarizes the minimum water supply over the next three years.

Table 8-4 Retail: Minimum Supply Next Three Years			
	2016	2017	2018
Available Water Supply	6,072	6,436	6,314
NOTES:			

Chapter 9. Demand Management Measures

CWC 10631

(f) (A) ... The narrative shall describe the water demand management measure that the supplier plans to implement to achieve its water use targets pursuant to Section 10608.20.

(B) The narrative pursuant to this paragraph shall include descriptions of the following water demand management measures:

(i) Water waste prevention ordinances.

(ii) Metering.

(iii) Conservation pricing.

(iv) Public education and outreach.

(v) Programs to assess and manage distribution system real loss.

(vi) Water conservation program coordination and staffing support.

(vii) Other demand management measures that have a significant impact on water use as measured in gallons per capita per day, including innovative measures, if implemented.

CWC 526

(a) Notwithstanding any other provisions of law, an urban water supplier that, on or after January 1, 2004, receives water from the federal Central Valley Project under a water service contract or subcontract... shall do both of the following:

(1) On or before January 1, 2013, install water meters on all service connections to residential and nonagricultural commercial buildings... located within its service area.

CWC 527

(a) An urban water supplier that is not subject to Section 526 shall do both the following:

(1) Install water meters on all municipal and industrial service connections located within its service area on or before January 1, 2025.

CWC 10631

(f) Provide a description of the supplier's water demand management measures. This description shall include all of the following:

(1) (A) ... a narrative description that addresses the nature and extent of each water demand management measure implemented over the past five years.

The District is a member of the California Urban Water Conservation Council (Council) and prepares a biannual Best Management Practices Activity Report also referred to as the CUWCC BMP Retail Coverage Report (BMP Report). The BMP Report is a good faith effort in implementing the 14 urban water conservation Best Management Practices (BMPs) that are intended to reduce long-term urban water demands. The BMP Reports for 2013 and 2014, attached as Appendix I are functionally equivalent to the Demand Management Measures in Water Code Section 10631.

The District has participated in water conservation programs and provided educational outreach to schools and the community since 1991. The District has prepared a Water Sustainability Plan (Appendix J) to document the District's current and future efforts to achieve water sustainability. This document discusses the water conservation programs that the District has implemented, is currently implementing, and plans to implement in order to meet the District's water use reduction targets.

The District utilizes a combination of BMPs to reduce overall water demand. The District began implementing water conservation programs in 1991. As the District is a member of the Council and has signed the council's Memorandum of Understanding Regarding Urban Water Conservation in California, the District is in a continuous effort to implement a combination of urban water conservation BMPs.

Many of the water conservation programs and outreach offered by the District are in collaboration with other agencies including the SDCWA and MWD. The water conservation programs include the following:

- WaterSmart Checkups
- Water conservation rebates and incentives
- Commercial and residential conservation audits and surveys
- Professional and residential workshops
- Customer outreach and education
- Large landscape budgets
- Water conservation contests

The Water Supply Shortage Response Program includes the prohibition of water waste. The District prohibits gutter flooding, single pass cooling systems in new connections, non-recirculating systems in all new conveyer car wash and commercial laundry systems, and non-recycling decorative water fountains. The District does not allow unreasonable water use such as failure to repair a water leak after notification from the District, inefficient landscape irrigation, excessive runoff, low head drainage, overspray of water flows onto non-targeted areas, etc.

In order to minimize water losses in the distribution system, customers are fully metered within the District's service area. The District has a Meter Replacement Program to ensure accuracy

of meter readings by replacing meters every 12 to 15 years. The District also conducts non-destructive testing of water mains to assess the remaining life of the main and detect possible leakage problems in order to maximize the useful life of the pipe, repair any leaks, and plan for replacement before problems occur.

In order to encourage the public to reduce water consumption, the District collaborates with local organizations and water agencies to offer free workshops and events to help its customers use water more efficiently. Some of the recently held or on-going workshops and events are WaterSmart Landscape Design for Homeowners Workshop, WaterSmart Landscaping Class Series, Garden Friendly Plant Fair, Sustainable Landscapes Program, and Qualified Water Efficient Landscaper. These programs focus on outdoor water use conservation.

The District also develops online education programs to provide useful and informative videos, recommendations, and other resources to increase public awareness of water use reduction. The District sponsors Splash Lab visits to elementary schools within the service area for grades 4-6 to allow students get hands on experience with GIS, lab work, and learn about water quality and conservation. The District offers free materials including Wise About Water Conservation activity books, World of Water activity books, The Wonderful World of Water, Water Times magazine and teacher's guides, and California Water map posters to schools within the District's service area.

Chapter 10. Plan Adoption, Submittal, and Implementation

This chapter describes addressing the CWC requirements for a public hearing, the UWMP adoption process, submitting an adopted UWMP, plan implementation, and the process for amending an adopted UWMP.

This chapter includes the following sections:

- Inclusion of all 2015 Data
- Notice of Public Hearing
- Public Hearing and Adoption
- Plan Submittal
- Public Availability
- Amending an Adopted UWMP

10.1. Inclusion of All 2015 Data

2015 UWMPs must include the water use and planning data for the entire year of 2015. As noted previously, the District reported all data using the Fiscal year of 6/30/2014 to 7/1/2015.

10.2. Notice of Public Hearing

Water suppliers must hold a public hearing prior to adopting their Plan.

10.2.1. Notice to Cities and Counties

CWC 10621

(b) Every urban water supplier required to prepare a plan shall... at least 60 days prior to the public hearing on the plan ... notify any city or county within which the supplier provides waters supplies that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan.

CWC 10642

...The urban water supplier shall provide notice of the time and place of hearing to any city or county within which the supplier provides water supplies. A privately owned water supplier shall provide an equivalent notice within its service area...

The District sent out their 60 day notices entitled **Notice of San Dieguito Water District’s 2015 Urban Water Management Plan Preparation** (Appendix C) to the public agencies listed in Table 2-5. The District also sent out a **Notice of Public Hearing**, per the requirements of the CWC to the same public agencies. Table 10-1 summarizes the cities and counties that the Notifications were sent to.

Table 10-1 Retail: Notification to Cities and Counties		
City Name	60 Day Notice	Notice of Public Hearing
City of Encinitas	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
County Name	60 Day Notice	Notice of Public Hearing
San Diego County	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
60 Day Notices and Notice of Public Hearing were also sent to San Diego County Water Authority, San Elijo JPA, Santa Fe Irrigation District, Olivenhain Municipal Water District, Vallecitos Water District, and Rincon del Diablo Municipal Water District.		

10.2.2. Notice to the Public

CWC 10642

…Prior to adopting a plan, the urban water supplier shall make the plan available for public inspection…Prior to the hearing, notice of the time and place of hearing shall be published within the jurisdiction of the publicly owned water supplier pursuant to Section 6066 of the Government Code…

Government Code 6066

Publication of notice pursuant to this section shall be once a week for two successive weeks. Two publications in a newspaper published once a week or oftener, with at least five days intervening between the respective publication dates not counting such publication dates, are sufficient. The period of notice commences upon the first day of publication and terminates at the end of the fourteenth day, including therein the first day.

The public hearing must be noticed in a local newspaper as prescribed in Government Code 6066. This notice must include time and place of hearing, as well as the location where the plan is available for public inspection.

The District published their Notice to the Public on May 27, 2016 and June 3, 2016 in The Coast News Group local newspaper publication. In addition, the District posted the Notice of Public Hearing on their website. The District made a draft copy of the 2015 UWMP available on their website at <http://www.encinitasca.gov/index.aspx> for public review. The Notice of Public Hearing is attached as Appendix K.

10.3.Public Hearing and Adoption

CWC 10642

...Prior to adopting a plan, the urban water supplier shall hold a public hearing thereon.

CWC 10608.26

(a) In complying with this part, an urban retail water supplier shall conduct at least one public hearing to accomplish all of the following:

(1) Allow community input regarding the urban retail water supplier's implementation plan for complying with this part.

(2) Consider the economic impacts of the urban retail water supplier's implementation plan for complying with this part.

(3) Adopt a method, pursuant to subdivision (b) of Section 10608.20 for determining its urban water use target.

The public hearing may take place at the same meeting as the adoption hearing of the District Board. The District chose to combine these meetings and their agenda included the public hearing as an agenda item. The District held their public hearing at their regularly schedule District Board Meeting on June 15, 2016. A copy of the Board agenda for the June 15th meeting is provided as Appendix L.

10.3.1. Adoption

CWC 10642

...After the hearing, the plan shall be adopted as prepared or as modified after the hearing.

The District Board held their public hearing on June 15, 2016. District Staff presented the highlights of the 2015 UWMP Board and the Board received comments on the Draft UWMP. It should be noted that there were no public comments. District Staff recommended that the 2015 UWMP be adopted and the Board voted unanimously to approve Resolution 2016-07, A Resolution of the Board of Directors of San Dieguito Water District Adopting the District's 2015

Urban Water Management Plan. The District's Agenda Report with recommended Staff action is provided as Appendix M. Resolution 2016-07 is provided as Appendix N.

10.4. Plan Submittal

CWC 10621

(d) An urban water supplier shall update and submit its 2015 plan to the department by July 1, 2016.

CWC 10644

(a) (1) An urban water supplier shall submit to the department, the California State Library, and any city or county within which the supplier provides water supplies a copy of its plan no later than 30 days after adoption.

CWC 10635

(b) The urban water supplier shall provide that portion of its urban water management plan prepared pursuant to this article to any city or county within which it provides water supplies no later than 60 days after the submission of its urban water management plan.

2015 UWMPs must be submitted to DWR within 30 days of adoption and by July 1, 2016. UWMP submittal will be done electronically through WUEdata, an online submittal tool that will be available in adequate time for UWMP submittal.

District Staff submitted their UWMP electronically through the WUEdata online submittal tool on June 28, 2016.

Appendix A – 2015 Electronic Annual Report (EAR)



DRAFT

LARGE WATER SYSTEM
2015 ANNUAL REPORT TO THE DRINKING WATER PROGRAM
FOR YEAR ENDING DECEMBER 31, 2015
[Section 116530 Health & Safety Code]

WATER SYSTEM INFORMATION	
Water System No.:	CA3710021
Water System Name:	SAN DIEGUITO WD
Water System Ownership (See descriptions below):	Local Government ▼
Physical location: (address line 1, address line 2, city, zip) Note: <i>NO</i> P.O. Box	160 CALLE MAGDALENA ENCINITAS 92024
General Office Phone:  (with area code)	760-633-2650
Web site address:	www.sdwd.org

Water System Ownership Descriptions:

- Local Government: e.g., city, county, or special district, local school district, junior colleges, county or community parks, etc.
- State or Federal Government: e.g., state or national park, BLM, USFS and COE campgrounds and recreation facilities, state hospitals, State universities and colleges, California Veterans Home, County or District Fairs and Expositions, Caltrans rest stop, military base, other state or federal facility
- Privately owned, non-PUC-regulated (Community Water System): e.g., mobile home park, apartment or condominium
- Privately owned business (non-community): e.g., church, private school, restaurant, amusement park, RV park/campground, motel, ranch/farm, factory, other business establishment

REPORT SUBMITTED BY: 	
Name:	William ODonnell
Title:	General Manager
Business phone:	760-633-2849
Cell phone:	760-224-6089
Email address:	bodonnell@sdwd.org

COMMENTS: 

1. Public Water System Contacts 

[Click here](#) to learn how to Modify, Add and Delete Contacts in the table below.

IMPORTANT: Each water system must have one and only one Administrative Contact AND one and only one Financial Contact. The same person may be both the Administrative and Financial Contacts.

Please provide an email address for the Administrative Contact as most email communication, particularly email blasts, from the Division of Drinking Water will be sent to the email address of the Administrative Contact.



PHONE TYPE: Home – if you use your home or personal phone number as your business number, use the HOME phone type instead and leave

the BUSINESS phone type blank.

Only the BUSINESS phone type will appear in Drinking Water Watch (https://sdwis.waterboards.ca.gov/PDWW/), which can be viewed by the public, if the General Office phone number is not provided (see Water System Information section under the Intro tab).

NAME, TITLE & ADDRESS	PHONE TYPE	PHONE NO.	EMAIL	CONTACT TYPE (pick all that apply) ?	
O'DONNELL, BILL GENERAL MANAGER 160 CALLE MAGDALENA ENCINITAS CA 92024	Business	760-633-2849	bodonnell@encinitasca.gov	<input type="checkbox"/> ** Delete Contact **	<input type="checkbox"/> Operator
	Home			<input checked="" type="checkbox"/> Administrative	<input type="checkbox"/> Emergency
	Facsimile	760-436-3592		<input checked="" type="checkbox"/> Financial	<input type="checkbox"/> Water Quality
	Mobile	760-224-6089		<input type="checkbox"/> Designated Operator In Charge	<input type="checkbox"/> Legal
	Emergency			<input type="checkbox"/> Owner	<input checked="" type="checkbox"/> Legal
				<input type="checkbox"/> Funding	<input type="checkbox"/> Contract Operator
SHAFFER, COR OPERATIONS MANAGER P.O. BOX 409 RANCHO SANTA FE CA 92067-0409	Business	858-756-2569	cshaffer@sfidwater.org	<input type="checkbox"/> ** Delete Contact **	<input type="checkbox"/> Operator
	Home			<input type="checkbox"/> Administrative	<input type="checkbox"/> Emergency
	Facsimile			<input type="checkbox"/> Financial	<input checked="" type="checkbox"/> Water Quality
	Mobile	858-602-7611		<input type="checkbox"/> Designated Operator In Charge	<input type="checkbox"/> Legal
	Emergency			<input type="checkbox"/> Owner	<input type="checkbox"/> Legal
				<input type="checkbox"/> Funding	<input type="checkbox"/> Contract Operator
PRUIM, GLENN	Business			<input checked="" type="checkbox"/> ** Delete Contact **	<input type="checkbox"/> Operator
	Home			<input type="checkbox"/> Administrative	<input type="checkbox"/> Emergency
	Facsimile			<input type="checkbox"/> Financial	<input type="checkbox"/> Water Quality
	Mobile			<input type="checkbox"/> Designated Operator In Charge	<input type="checkbox"/> Legal
	Emergency			<input type="checkbox"/> Owner	<input type="checkbox"/> Legal
				<input type="checkbox"/> Funding	<input type="checkbox"/> Contract Operator
AURORA, JOE SUPERINTENDENT 160 CALLE MAGDALENA ENCINITAS CA 92024	Business	760-633-2861	jaurora@sdwd.org	<input type="checkbox"/> ** Delete Contact **	<input type="checkbox"/> Operator
	Home			<input type="checkbox"/> Administrative	<input type="checkbox"/> Emergency
	Facsimile	760-436-3592		<input type="checkbox"/> Financial	<input checked="" type="checkbox"/> Designated Operator In Charge
	Mobile	760-685-5563		<input checked="" type="checkbox"/> Designated Operator In Charge	<input type="checkbox"/> Water Quality
	Emergency			<input type="checkbox"/> Owner	<input type="checkbox"/> Legal
				<input type="checkbox"/> Funding	<input type="checkbox"/> Contract Operator
KNOLL, BLAIR SENIOR ENGINEER 160 CALLE MAGDALENA ENCINITAS CA 92024	Business	760-633-2793	bknoll@sdwd.org	<input type="checkbox"/> ** Delete Contact **	<input checked="" type="checkbox"/> Operator
	Home			<input type="checkbox"/> Administrative	<input type="checkbox"/> Emergency
	Facsimile	760-436-3592		<input type="checkbox"/> Financial	<input type="checkbox"/> Water Quality
	Mobile	760-716-1382		<input type="checkbox"/> Designated Operator In Charge	<input type="checkbox"/> Legal
	Emergency			<input type="checkbox"/> Owner	<input type="checkbox"/> Legal
				<input type="checkbox"/> Funding	<input type="checkbox"/> Contract Operator
	Business			<input checked="" type="checkbox"/> ** Delete Contact **	<input type="checkbox"/> Operator
	Home			<input type="checkbox"/> Administrative	<input type="checkbox"/> Operator

	Facsimile			<input type="checkbox"/> Financial	<input type="checkbox"/> Emergency
	Mobile			<input type="checkbox"/> Designated Operator In Charge	<input type="checkbox"/> Water Quality
	Emergency			<input type="checkbox"/> Owner	<input type="checkbox"/> Legal
				<input type="checkbox"/> Funding	<input type="checkbox"/> Contract Operator
Add Additional Contact					
	Business			<input checked="" type="checkbox"/> ** Delete Contact **	<input type="checkbox"/> Operator
	Home			<input type="checkbox"/> Administrative	<input type="checkbox"/> Emergency
	Facsimile			<input type="checkbox"/> Financial	<input type="checkbox"/> Water Quality
	Mobile			<input type="checkbox"/> Designated Operator In Charge	<input type="checkbox"/> Legal
	Emergency			<input type="checkbox"/> Owner	<input type="checkbox"/> Contract Operator
				<input type="checkbox"/> Funding	<input type="checkbox"/> Contract Operator
Add Additional Contact					
	Business			<input checked="" type="checkbox"/> ** Delete Contact **	<input type="checkbox"/> Operator
	Home			<input type="checkbox"/> Administrative	<input type="checkbox"/> Emergency
	Facsimile			<input type="checkbox"/> Financial	<input type="checkbox"/> Water Quality
	Mobile			<input type="checkbox"/> Designated Operator In Charge	<input type="checkbox"/> Legal
	Emergency			<input type="checkbox"/> Owner	<input type="checkbox"/> Contract Operator
				<input type="checkbox"/> Funding	<input type="checkbox"/> Contract Operator
Add Additional Contact					
				(pick all that apply)	
--Contact Name--	Business	--Bus. #--	--Email Addr--	<input type="checkbox"/> Administrative	<input type="checkbox"/> Operator
--Title--	Home	--Fax No--		<input type="checkbox"/> Financial	<input type="checkbox"/> Emergency
--Address Line 1-- --Address Line 2--	Facsimile	--Mob. #--	--2nd Email Addr--	<input type="checkbox"/> Designated Operator In Charge	<input type="checkbox"/> Water Quality
--City-- --ST-- --Zip--	Mobile	--Emer. #--		<input type="checkbox"/> Owner	<input type="checkbox"/> Legal
				<input type="checkbox"/> Funding	<input type="checkbox"/> Contract Operator
Add Additional Contact					
				(pick all that apply)	
--Contact Name--	Business	--Bus. #--	--Email Addr--	<input type="checkbox"/> Administrative	<input type="checkbox"/> Operator
--Title--	Home	--Fax No--		<input type="checkbox"/> Financial	<input type="checkbox"/> Emergency
--Address Line 1-- --Address Line 2--	Facsimile	--Mob. #--	--2nd Email Addr--	<input type="checkbox"/> Designated Operator In Charge	<input type="checkbox"/> Water Quality
--City-- --ST-- --Zip--	Mobile	--Emer. #--		<input type="checkbox"/> Owner	<input type="checkbox"/> Legal
				<input type="checkbox"/> Funding	<input type="checkbox"/> Contract Operator
Add Additional Contact					
				(pick all that apply)	
--Contact Name--	Business	--Bus. #--	--Email Addr--	<input type="checkbox"/> Administrative	<input type="checkbox"/> Operator
--Title--	Home	--Fax No--		<input type="checkbox"/> Financial	<input type="checkbox"/> Emergency
--Address Line 1-- --Address Line 2--	Facsimile	--Mob. #--	--2nd Email Addr--	<input type="checkbox"/> Designated Operator In Charge	<input type="checkbox"/> Water Quality
--City-- --ST-- --Zip--	Mobile	--Emer. #--		<input type="checkbox"/> Owner	<input type="checkbox"/> Legal
				<input type="checkbox"/> Funding	<input type="checkbox"/> Contract Operator
Add Additional Contact					
				(pick all that apply)	
--Contact Name--	Business	--Bus. #--	--Email Addr--	<input type="checkbox"/> Administrative	<input type="checkbox"/> Operator
--Title--	Home	--Fax No--		<input type="checkbox"/> Financial	<input type="checkbox"/> Emergency

--Address Line 1-- --Address Line 2--	Facsimile Mobile	--Mob. #--	--2nd Email Addr--	<input type="checkbox"/> Designated Operator In Charge	<input type="checkbox"/> Water Quality
--City-- --ST-- --Zip--	Emergency	--Emer. #--		<input type="checkbox"/> Owner	<input type="checkbox"/> Legal
				<input type="checkbox"/> Funding	<input type="checkbox"/> Contract Operator
COMMENTS: ?					

2. POPULATION SERVED

Permanent population or number of long-term residents*: Please follow this LINK for instructions to determine population.	37376
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*Long-term resident means someone who resides within the water system service area for more than half of the year.

Method used to determine population:	Other
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If permanent population is based on "Other" , identify the methods or sources of how it was estimated::
Census data supplied by SANDAG

Seasonal Maximum Population (If applicable):	
--	--

Provide season ? :

Begin Date		End Date	
MM	DD	MM	DD

List the names of communities served by the system identifying both incorporated and unincorporated areas:

COMMENTS: ?

3. NUMBER OF SERVICE CONNECTIONS(as of December 31, 2015)

A. Active Service Connections:

Total Active Potable Water Connections currently in Division of Drinking Water database:	11532
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The total number of Service Connections as of December 31, 2015 must be reported as either Unmetered or Metered for each Service Connection Type as appropriate.

TYPE	Potable Water			Recycled Water		
	Unmetered	Metered	Total*	Unmetered	Metered	Total*
Do NOT report fire sprinkler connections and fire hydrants. These connections are not counted toward "service connections" for						

compliance purposes.						
<u>Single-family Residential:</u> single family detached dwellings	0	8977	8977	0	0	0
<u>Multi-family Residential:</u> Apartments, condominiums, town houses, duplexes and trailer parks	0	1729	1729	0	0	0
<u>Commercial/Institutional:</u> Retail establishments, office buildings, laundries, schools, prisons, hospitals, dormitories, nursing homes, hotels	0	649	649	0	8	8
<u>Industrial:</u> All manufacturing	0	0	0	0	0	0
<u>Landscape Irrigation:</u> Parks, play fields, cemeteries, median strips, golf courses	0	241	241	0	75	75
<u>Agricultural Irrigation:</u> Irrigation of commercially-grown crops	0	106	106	0	0	0
Total Active Connections*	0	11702	11702	0	83	83
 <u>Other:</u> Fire suppression, street cleaning, line flushing, construction meters, temporary meters	171	1802	1973	0	1	1

*Calculated field

To update totals click here

B. Number of Inactive Connections (all types)	
Include only service connections that have been physically disconnected (i.e., meter removed) from the water system. All other service connections should be considered as "Active."	

COMMENTS: 

4. GROUNDWATER (GW) AND SURFACE WATER (SW) SOURCES

Type	Total No. Approved (by permit)	Total No. New/ Added in 2015	Total No. Inactivated in 2015	Total No. Destroyed in 2015
Active Groundwater Intakes (Wells)	0			
Active Surface Water Intakes (Raw)	3			
Active Purchased Water (GW) Connections	0			
Active Purchased Water (SW) Connections	1			
Standby Sources ¹ 	0			
Emergency Interconnections	7			
Inactive Sources ²	0			

Are your water sources metered? ▼¹If a standby source  was used in 2015, provide the following information.

Name of the Standby Source used in 2015:	No. of days the Standby Source was in operation:	Were customers notified? (Y/N)	Was the Division of Drinking Water notified? (Y/N)	Describe the reason the Standby Source was used:

²**Inactive sources** are not approved as sources of supply and must be physically disconnected or otherwise isolated so that only an intentional act by an operator can place the source in service.

COMMENTS: 

5. WATER PRODUCED, PURCHASED AND SOLD

The **Maximum Day** is the day during 2015 with the highest total water usage. Provide the *date* for that day in Column B, then complete Columns C, D and E, indicating how much of the water on that day was from each source.

The **Maximum Month** is the month during 2015 with the highest total water usage. Provide the *month* in Column B, then complete Columns C, D and E, indicating how much of the water during that month was from each source.

Units of Measure for this table:

Volumes are based on:

A	B	C	D	E	F	G	H	I
	Potable Water						Non-potable (exclude recycled)	Recycled
	Date/ Month	Water Produced from Groundwater (Wells)	Water Produced from Surface Water ²	Finished Water Purchased or Received from another PWS ⁵	Total Amount of Potable Water ^{3*}	Water Sold to Another PWS ⁵		
Maximum Day ¹					0			
Maximum Month	August	0	34.8	497.2	532	NA		
January		0	78.3	313.8	392.1	NA	NA	21
February		0	136.4	321.9	458.3	NA	NA	39
March		0	109.8	410	519.8	NA	NA	53
April		0	0	529.8	529.8	NA	NA	77
May		0	0	480	480	NA	NA	54
June		0	0	519.2	519.2	NA	NA	84
July		0	0	491.8	491.8	NA	NA	69
August		0	34.8	497.2	532	NA	NA	76
September		0	148.6	345.6	494.2	NA	NA	78
October		0	150.7	305.3	456	NA	NA	48
November		0	3	424.2	427.2	NA	NA	38
December		0	98.2	314.5	412.7	NA	NA	31

Annual Total*	0	759.8	4953.3	5713.1	0	0	668
Percent Treated ⁴							

PWS = Public Water System

*Calculated field

Non-potable = water supplies, except recycled water, that do not enter the drinking water distribution system and are for non-potable uses only such as irrigation

Recycled = domestic wastewater which as a result of treatment is suitable for uses other than potable use such as irrigation or toilet flushing

¹Only report Maximum Day if it is actually measured or determined from production records. It should not be the average day demand during the maximum month of production.

²Do not include raw water purchased; report only volume of water that was treated.

³(F) Total Amount of Potable Water = Sum of Columns (C), (D) and (E), automatically calculated. To update, click below

To update totals click here

⁴This is the percentage of the total annual volume for Groundwater produced that was provided treatment to meet drinking water standards other than precautionary disinfection.

⁵If water was Purchased from or Sold to another PWS, complete the table below:

Specify whether water was <i>Purchased</i> or <i>Sold</i>	Name of PWS
Purchased	San Diego County Water Authority

If recycled water was *supplied* to your customers, complete the table below:

Specify the level of treatment (e.g., tertiary, disinfected secondary)	Name of Recycled Water supplier
Tertiary	San Elijo Joint Powers Association

COMMENTS: ?

6a. WATER RATES

If you have questions about completing this section of the report ONLY, please contact Kathy.Frevert@Waterboards.ca.gov or call (916) 322-5274. For all other inquiries, please contact DRINC@waterboards.ca.gov.



Indicate the type of residential water rate structure ? used by your water system: Variable Base Rate + Variable Usage Rate

If tiered, what is the number of tiers?	4
Date of most recent update to the rate structure: MM/DD/YYYY	02/01/2016
Describe the changes that were made in the update:	Rate adjustment
What is your billing frequency	bi-monthly
What is your new connection fee?	3,300
Date of most recent update to the new connection fee: MM/DD/YYYY	07/27/2007

Complete the table below providing specific water rates applied to your customers:

Connection Type	FLAT BASE RATE	UNIFORM USAGE RATE	VARIABLE BASE RATE (provide range)		VARIABLE USAGE RATE (provide range)	
	\$ (Base)	\$ per hcf ?	\$ Low	\$ High	\$ per hcf Low	\$ per hcf High
RESIDENTIAL ?						
Single-family Residential	NA	NA	37.39	1417.05	3.05	6.80
Multi-family Residential	NA	NA	37.39	1417.05	3.05	6.80
Do you provide lifeline/low income subsidies?			<input type="text" value="No"/>			
If Yes, provide rates:						
If yes, what percentage of residential customers receive this subsidy?						
NON-RESIDENTIAL ?						
Commercial/Institutional	NA	NA	37.39	1417.05	5.17	5.66
Industrial	NA	NA	NA	NA	NA	NA
Landscape Irrigation	NA	NA	37.39	1417.05	5.97	5.97
Agricultural Irrigation	NA	NA	37.39	1417.05	5.17	5.17
Other						
Do you have fire suppression surcharges?			<input type="text" value="Yes"/>			
If Yes, provide rates:			7.95	484.14	NA	NA
Do you have other surcharges?			<input type="text" value="Yes"/>			
What are the other surcharges?			SDCWA IAC			
If Yes, provide rates:			5.52	287.04	NA	NA

AVERAGE MONTHLY RESIDENTIAL CUSTOMER WATER BILL IN \$/month USING:



- a. 6 CCF 39.76
- b. 12 CCF 58.06
- c. 24 CCF 120.62

NOTE: If this is not a "Community" Water System; enter N/A. If individual customers do not pay a separate bill for water enter "0".

6b. WATER DELIVERIES

Units of Measure for this table:

Provide monthly **metered** water deliveries in the table below.

A	B	C	D	E	F	G	H	I	J
	Single-family Residential	Multi-family Residential	Commercial/Institutional	Industrial	Landscape Irrigation	Other	Total Urban Retail!*	Agricultural	Other PWS

Check if Recycled Water is included:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
January	159.53	79.65	34.44	NA	21.09	NA	294.71	9.89	NA
February	213.34	98.71	75.21	NA	28.43	NA	415.69	14.79	NA
March	192.94	91.69	47.57	NA	56.87	NA	389.07	14.54	NA
April	251.28	95.10	77.80	NA	31.96	NA	456.14	21.05	NA
May	217.83	88.49	44.28	NA	89.15	NA	439.75	19.25	NA
June	290.42	107.93	83.36	NA	41.93	NA	523.64	26.32	NA
July	228.65	93.40	46.74	NA	99.38	NA	468.17	17.86	NA
August	286.03	111.66	88.37	NA	74.95	NA	561.01	24.48	NA
September	244.73	97.02	38.20	NA	32.16	NA	412.11	23.61	NA
October	260.42	94.68	86.14	NA	95.53	NA	536.77	26.92	NA
November	214.33	92.60	32.66	NA	27.11	NA	366.7	19.20	NA
December	253.37	98.58	81.25	NA	52.47	NA	485.67	22.76	NA
Total*	2812.87	1149.51	736.02	0	651.03	0	5349.43	240.67	0

PWS = Public Water System

*Calculated field

¹Total Urban Retail = Sum of Columns (B) thru (G), automatically calculated. To update, click below

[To update totals click here](#)



6c. WATER EFFICIENCY INFORMATION (Required for water suppliers listed [HERE](#); optional for all others)

1. What steps have you taken to implement the updated Model Water Efficient Landscape Ordinance?

Provide the web link to the Landscape Ordinance that must be followed in your service area.

2. Provide a calculation of the total irrigated area subject to the 0.8 of ET standard (existing landscape)

3. Provide a calculation of the total irrigated area subject to the 0.55 of ET standard (existing landscape)

4. What percentage of your residential customers used more than 80% of ET for outdoor irrigation during 2015?*

5. What steps have you taken to implement SB 407 (2009)?[?]

*Use 55 GPCD for indoor use. If you do not have household size data, use Census data. If your service area covers multiple ET zones and you do not have the ET data for each zone, use average ET for your service area.

COMMENTS: ?

20 largest urban water suppliers

1. Anaheim, City of
2. Bakersfield, City of
3. California Water Service - Bakersfield
4. Coachella Valley WD
5. Cucamonga Valley WD
6. East Bay MUD
7. Eastern Municipal WD
8. Fresno, City of
9. Irvine Ranch WD
10. Long Beach, City of
11. Los Angeles County Public Works
12. Los Angeles DWP
13. Modesto, City of
14. Rancho California WD
15. Riverside, City of
16. Sacramento, City of
17. San Bernardino, City of
18. San Diego, City of
19. San Francisco PUC
20. San Jose Water Company

7. WATER QUALITY

ANNUAL NITRATE SAMPLING

Regulations require a minimum of **annual** sampling for nitrate. If any nitrate result is $\geq 1/2$ the MCL of 45 mg/l (i.e., a result of ≥ 23 mg/l nitrate) then quarterly monitoring must be initiated.

Did your system conduct monitoring for nitrate during 2015 from each source?	Yes
--	-----

NOTE: If there were any sources that were not monitored because they were offline during 2015, you must contact your local regulatory agency to avoid an enforcement action for failure to monitor.

BACTERIOLOGICAL SAMPLE SITING PLAN

The coliform monitoring regulations require that an updated sample-siting plan be submitted at least every 10 years, and at any time the plan no longer ensures representative monitoring of the system (Section 64422 of Title 22).

Date of current bacteriological sample siting plan:	2014
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DIRECT ADDITIVES

Pursuant to Section 64590, Title 22 of the California Code of Regulations, (effective January 1, 1994), all chemicals or products, including chlorine, added directly to the drinking water as part of a treatment process must meet the ANSI/NSF Standard 60. Please complete the following table for each chemical used by this water system. If you are not sure whether a chemical you are using meets this standard, contact the manufacturer or distributor of the chemical.

If you do not use any direct additives, put "NONE" in **each** column of the first row.

Name of Chemical	Name of Manufacturer	Purpose of using chemical	Chemical is ANSI/NSF Standard 60 certified ? (Y/N)	Use initiated in 2015 ? (Y/N)
PACL	SUMMIT	COAGULANT	Y	N

ACH	CAL CHEM	COAGULANT	Y	N
POLYMER	POLYDYNE	COAGULANT	Y	N
CHLORINE	JCI JONES	DISINFECTANT	Y	N
AMMONIA	THATCHER CHEMICAL	DISINFECTANT	Y	N
SODIUM CHLORITE	UNIVAR	DISINFECTANT	Y	N
SODIUM HYDROXIDE	BRENTAG	PH CONTROL	Y	N

INDIRECT ADDITIVES

As of March 9, 2008, a water system shall not use any chemical, material, lubricant, or product in the production, treatment or distribution of drinking water that comes in contact with the drinking water that does not have certification of meeting NSF/ANSI standard 61.

Does your water system have procedures to ensure all future equipment and materials meet this standard?	Yes ▾
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If you have any questions on the requirements related to indirect additives, you may contact your local regulatory agency.

COMMENTS: ?

8. CROSS-CONNECTION CONTROL ?

	Total Number in System	Number Installed in 2015	Number Tested in 2015	Number Failed in 2015	Number Repaired/ Replaced
Backflow Assemblies ? on the Service Connections or Meter (Reduced Pressure Principle and Double Check Valve assemblies)	1374	17	1374	131	131
Backflow Assemblies On- site but not on the Service Connections or Meter ? (Reduced Pressure Principle and Double Check Valve assemblies)	60	0	60	11	11
Air-gap Separation ?	2	0			

No. of <i>Inactive</i> Backflow Prevention Assemblies in water system in 2015 ?	13		
Date of last cross-connection control survey done on the system:	ONGOING		
Cross Connection Control Program Coordinator			
Name:	STEVE MCSPADDEN		
Certification Number:	02038		
Business Phone:	7606332866	Email Address:	smcspadden@sdwd.org
Certification or training received: AWWA SPECIALIST & BACKFLOW TESTER, PALOMAR COLLEGE			

Describe any cross-connection incidents ? that occurred during 2015:

COMMENTS:?

9. CONSUMER CONFIDENCE REPORT ? (does not apply to Transient Noncommunity water systems)

THE 2015 CCR MUST BE DISTRIBUTED TO YOUR CUSTOMERS AND A COPY SUBMITTED TO YOUR LOCAL REGULATORY AGENCY BY JULY 1, 2016. IN ADDITION, PUBLIC WATER SYSTEMS THAT ARE ALSO REGULATED BY THE CALIFORNIA PUBLIC UTILITIES COMMISSION (PUC) MUST MAIL A COPY OF THEIR CCR TO THE PUC BY JULY 1, 2016.

CERTIFICATION MUST BE SUBMITTED TO YOUR LOCAL REGULATORY AGENCY BY OCTOBER 1, 2016, STATING THAT THE 2015 CCR HAS BEEN DISTRIBUTED TO CUSTOMERS AND THAT THE INFORMATION IS CORRECT.

The CCR guidance, CCR template, and the certification form can be obtained from the Division of Drinking Water web site at: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/CCR.shtml

Indicate the date your 2015 CCR was distributed or will be distributed to your customers:

6/1/2016 mm/dd/yyyy

PUBLIC WATER SYSTEMS THAT SERVE 100,000 OR MORE PERSONS ARE REQUIRED TO POST THEIR CCR ON THE INTERNET.

If your water system serves 100,000 or more persons, indicate the date the CCR was or will be posted to the Internet:

If applicable, please provide the URL link to the CCR posted on the Internet:

COMMENTS:?

10. OPERATOR CERTIFICATION

A. Please list the State certified Water **Treatment Plant Operators** employed by your water system that supervise and direct the operation of your water treatment plants, beginning with the chief operator(s) ?

Your Highest Treatment System Classification is: There are no facilities subject to the Certified Treatment Plant Operator requirements

If you do not have a Certified Treatment Plant Operator, put "NONE" in **each** column of the first row.

Name	Grade of Operator	Chief or Shift ¹ (C/S)	Operator Number	Expiration Date
Cor Shaffer	T5	X	19785	4/1/18
Tim Bailey	T5	X	23618	2/1/19
Eli Standing Warrior	T5	C	24846	10/1/17
Michael Andrews	T4	S	15920	8/1/19
Tommy Booker	T4	S	22153	9/1/18
Kenneth Buckley	T3	S	22159	8/1/19
Eric Patterson	T3	S	32047	12/1/18
Chez Madrid	T3	S	36386	12/1/18
Marco Martinez	T2	S	35150	3/1/19
Jesse A. Bartlett-May	T3		31888	12/1/15

¹Use "C" for Chief Operator and "S" for Shift Operator. If neither, put an "X".

Do your Chief and Shift Treatment Plant Operators have the minimum level required?

B. Please list the State certified Water **Distribution Operators** employed by your water system that supervise and direct the operation of your distribution systems, beginning with the chief operator(s) [?](#).

Your Distribution System Classification is: D3

If you do not have a Certified Distribution System Operator, put "NONE" in **each** column of the first row.

Name	Grade of Operator	Chief or Shift ¹ (C/S)	Operator Number	Expiration Date
William O'Donnell	D4	X	8271	12/1/16
Joe Aurora	D3	C	4499	3/1/18
Steve McSpadden	D3	S	26056	8/1/17
Tom Zinniger	D4	S	2701	3/1/18
Blair Knoll	D4	X	34518	8/1/16
Pedro Castanon	D3	S	39203	6/1/17
Jose Nunez	D3	S	4020	5/1/18
Mark Piskor	D3	S	16621	7/1/16
Raul Gonzalez	D4	S	16579	12/1/16
Jacob Coulter	D2	S	35642	4/1/18
William Gulley	D2	S	31062	6/1/18
Ryan Stone	D2	S	28018	6/1/18
Richard Motas	D3	S	32287	12/1/16
Joshua Westbrook	D3	S	36460	9/1/16
Ryan Spencer	D2	S	42693	6/1/16
Omar Martinez	D2	S	44746	11/1/17
Christina Olson	D4	X	38069	8/1/18
Felice Tacktil	D2	X	29367	6/1/17

¹Use "C" for Chief Operator and "S" for Shift Operator. If neither, put an "X".

Do your Chief and Shift Distribution System Operators have the minimum level required?

COMMENTS: [?](#)

11. WATER SYSTEM IMPROVEMENTS

The California Waterworks Standards (Section 64556) require an amended permit for any of the following improvements or modifications:

- Addition of a new distribution reservoir with a capacity of 100,000 gallons or more
- Modification or extension of the existing distribution system using an alternative to the requirements of the California Waterworks Standards (see Sections 64570 through 64578)
- Modification of the water supply by:
 - Adding a new source
 - Changing the status of an existing source (for example, active to standby) or
 - Changing or altering a source, such that the quality or quantity of water supply could be affected
- Any addition or change in treatment, including
 - Design capacity
 - Process
- Expansion of the existing service area by 20 percent or more of the number of service connections specified in your current permit.

If your water system made any improvements or modifications during 2015 for which a permit was not obtained, please describe the improvements or modifications below.

NONE

Indicate any planned improvements or modifications for 2016.

NONE

COMMENTS:?

12. COMPLAINTS REPORTED (WRITTEN OR VERBAL)

Type of Complaint	No. of Complaints Reported by Customers	No. of Complaints Investigated	No. of Complaints reported to the Division of Drinking Water or Local County Staff	Brief Description of Cause and Corrective Action taken
Taste and Odor	6	6	0	100% local water- provided customers with taste and odor handout; customer side issues- advised to clean drains and flush system
Color	2	2	0	Flushed system
Turbidity	2	2	0	Sediment in water, flushed system
Visible Organisms	0	0	0	
Pressure (High or Low)	23	23	0	Failed pressure regulators-advised to call plumber
Water Outages ¹	21	21	0	Customer side issues with landscape and repairs-turned water back on or showed customer how to do it
Illnesses (Waterborne)	0	0	0	
Other (Specify)	9	9	0	Dirty Water-Sediment in water, flushed system
Total No. of Complaints*	63	63	0	

¹These are customer complaints of a water outage and not necessarily the same as the water outages reported under "System Problems" in the Distribution Section of the EARDWP.

*Calculated field

To update totals click here

COMMENTS:?

13. RECYCLED WATER USE

 Do you have recycled water in your service area (provided by you or another utility)?	<input type="text" value="Yes"/>
--	----------------------------------

Recycled Water (RW) Use Sites	Total No. of Approved Sites as of Dec. 31, 2015	No. of New Sites Approved in 2015	No. of Sites Proposed for 2016
Irrigation, Agriculture			
Irrigation, Landscape	56	1	5
Industrial			
Dual-plumbed  (In-building)	3	1	0
Dual-plumbed (Single-family lot)			
Cooling Towers	1	0	0
Other			
Total*	60	2	5

To update totals click here

Name of the recycled water coordinator:	STEVE MCSPADDEN
Business Phone:	7606332866
Email address:	SMCSPADDEN@SDWD.ORG
How many inspections of recycled water use sites were conducted in 2015?	60
How many pressure/shutdown tests were performed in 2015?	3
Do all of your recycled water uses sites have an on-site supervisor?	<input type="text" value="Yes"/>
How many recycled water uses sites do not have an on-site supervisor?	0

COMMENTS: 
--

14. SYSTEM OPERATION - TREATMENT

A. GROUNDWATER TREATMENT *(respond only if groundwater treatment is provided)*

Groundwater Treatment Plant Name	Treatment Plant Classification	Capacity (MGD)	Type of Treatment	Date of Operations Plan	Is Operations Plan Current? (Y/N)

--	--	--	--	--	--

Describe any plant problems, process failures, major shutdowns, etc., which occurred in 2015 and substantially affected the plant performance AND/OR any significant modifications or maintenance provided to the plant(s):

B. SURFACE WATER TREATMENT *(respond only if surface water treatment is provided)*

Surface water Treatment Plant Name	Treatment Plant Classification	Capacity (MGD)	Type of Treatment	Date of Operations Plan	Is Operations Plan Current? (Y/N)
R. E. Badger Filtration Plant	Surface Water	40	Conventional	2014	Y

Describe any plant problems, process failures, major shutdowns, etc., which occurred in 2015 and substantially affected the plant performance AND/OR any significant modifications or maintenance provided to the plant(s):

TD = Treatment or Distribution operator at any level

NR, N/A, NA = There are no facilities subject to the Certified Treatment Plant Operator requirements

Date of current Emergency Disinfection Plan (EDP)*:	2014
<i>*As required under Section 64660(c)(2). The EDP may be included in your water system's Emergency Response Plan or Operations Plan. If so, provide the Name and Date of those plans below.:</i>	
Name of Document that includes the Emergency Disinfection Plan:	Operations Plan
Date of document that includes the Emergency Disinfection Plan:	2014
Date of last watershed sanitary survey report  :	2015
Date planned to complete next watershed sanitary survey report*:	2020
<i>*As required under Section 64665, each watershed sanitary survey shall be updated at least every 5 years.</i>	

COMMENTS: 

15. SYSTEM OPERATION – DISTRIBUTION

A. DEAD-END FLUSHING PROGRAM

Total No. in System	No. with Blowoffs	No. Flushed in 2015	Frequency of Flushing
334	62 blowoffs; 272 service connections/hydrants	334	265 as needed/yearly; 69 quarterly

B. VALVE EXERCISE PROGRAM

Size Range of Valves	Total No. in System	No. Exercised in 2015	Frequency of Valve Exercising
4-24"	3853	855	Every 3 years

C. STORAGE TANK/RESERVOIR INSPECTION/CLEANING PROGRAM

(Do not include pressure tanks)

Tank name	Capacity (in million gallons, MG)	Year installed	Date of last inspection ?	Date of last cleaning	Date re-lined or coated
Badger Clearwell	13	1968	2013	2013	
Balour Reservoir	2.5	1975	2015	2006; scheduled for 2016	
Encinitas Ranch Reservoir	7.5	1998	2015	2006	

D. SYSTEM PROBLEMS

Type of Problem	No. of Problems	No. of Problems Investigated	No. of Problems Reported to the Division of Drinking Water or Local County Staff	Brief Description of Cause and Corrective Action Taken
Service Connection Breaks/ Leaks	58	58	0	Repair services/anglestops
Main Breaks/Leaks	2	2	0	Repair main
Water Outages ?	8	8	0	Repairs made
Boil Water Orders	0	0	0	
Total*	68	68	0	

To update totals click here

COMMENTS: ?

16. EMERGENCY PREPAREDNESS AND RESPONSE**A. EMERGENCY RESPONSE PLANS**

PUBLIC WATER SYSTEMS WITH AT LEAST 3,300 OR MORE PERSONS ARE REQUIRED TO REVIEW AND REVISE THEIR EMERGENCY RESPONSE PLAN TO ENSURE THAT THE PLANS ARE SUFFICIENT TO ADDRESS POSSIBLE DISASTER SCENARIOS.

Do you have an Emergency Response Plan (ERP) that addresses the procedures for the restoration of water service for your water system?	Yes ▾
--	-------

Date of your current Emergency Response Plan:	2012
Date ERP was last exercised with a tabletop or other activity:	2015

B. AUXILIARY POWER SUPPLY

Does your water system have backup power for:	
1. Sources:	Not Applicable ▼
2. Pumping Stations:	All ▼
3. Water Treatment Plants:	All ▼
If your system has backup power, how many times per year is it exercised?	1
Can your system maintain system pressure either by backup power or by storage during power outages of 2 hours or less?	Yes ▼
Is your backup power system automatic or manual start?:	Manual Start ▼

COMMENTS: 

17. WATER CONSERVATION AND DROUGHT PREPAREDNESS

Date of your revised Drought Preparedness Plan, if any:	2015
If you experienced water shortages in 2015, please estimate the amount of shortfall in millions of gallons:	
Did drought conditions cause you to activate emergency standby wells in 2015?	Not Applicable (no wells) ▼
Do you project water shortages in the current calendar year?	No ▼
Did you implement NEW water conservation measures in 2015?	No ▼
If you implemented NEW water conservation measures in 2015, please estimate how much water was conserved in millions of gallons: (MG) % reduction in demand	
Do you anticipate having to go to mandatory rationing in the upcoming year?	No ▼
Do you routinely monitor the <i>static</i> water levels in your wells?	Not Applicable (no wells) ▼
Do you routinely monitor the <i>pumping</i> water levels in your wells?	Not Applicable (no wells) ▼
Are these levels recovering, declining or steady?:	Not Applicable (no wells) ▼

Please list any other long term actions you are considering or planning:

COMMENTS: 

Disclosure: Be advised that Section 116725 and 116730 of the California Health and Safety Code states that any person who knowingly makes any false statement on any report or document submitted for the purpose of compliance may be liable for a civil penalty not to exceed five thousand dollars (\$5,000) for each separate violations for each day that the violation continues. In addition, the violators may be prosecuted in criminal court and upon conviction, be punished by a fine of not more than \$25,000 for each day of violation, or be imprisoned in county jail

not to exceed one year, or both the fine and imprisonment.

Appendix B – Regional Alliance Cooperative Agreement

**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 April 15, 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 1, 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 1, 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.

Name: _____
Olivenhain Municipal Water District

Date

Name: _____
Vallecitos Water District

Date

Name: _____
Rincon del Diablo Municipal Water District

Date

Name: _____
San Dieguito Water District

Date

Appendix C – 60 day Notifications



SAN DIEGUITO WATER DISTRICT
160 CALLE MAGDALENA
ENCINITAS, CA 92024
PHONE: (760) 633-2709
FAX: (760) 436-3592

**Notice of San Dieguito Water District's
2015 Urban Water Management Plan Preparation**

Maureen Stapleton, General Manager
San Diego County Water Authority
4677 Overland Avenue
San Diego, CA 92123

Date: March 14, 2016
Amended Date: May 24, 2016

Dear Ms. Stapleton:

This letter is to inform you that the San Dieguito Water District (Water District) is updating its Urban Water Management Plan (UWMP). California State law requires urban water suppliers to update their UWMPs every five years and notify the cities and counties within their service area that a plan is being prepared. The Water District must adopt an updated UWMP by June 15, 2016, and submit the adopted plan to the California Department of Water Resources by July 1, 2016.

The UWMP is required to contain a detailed evaluation of the supplies necessary to reliably meet demands over at least a 20-year period in both normal and dry years. In accordance with State law, the Water District will distribute a copy of its draft 2015 UWMP to the cities and county within its service area for public review at least two weeks prior to holding a tentatively scheduled public hearing in ~~May 18, 2016~~ **June 15, 2016**.

San Dieguito Water District welcomes public input as it prepares its draft 2015 UWMP update. Please contact Blair A. Knoll at (760) 633-2793, or email at BKnoll@SDWD.org, if you wish to review or provide comments on the Water District's UWMP 2015 update.

Sincerely,

Bill O'Donnell, PE
General Manager



SAN DIEGUITO WATER DISTRICT
160 CALLE MAGDALENA
ENCINITAS, CA 92024
PHONE: (760) 633-2709
FAX: (760) 436-3592

**Notice of San Dieguito Water District's
2015 Urban Water Management Plan Preparation**

Helen N. Robbins-Meyer,
Chief Administrative Officer
County of San Diego
1600 Pacific Highway
San Diego, CA 92101

Date: March 14, 2016
Amended Notice: May 24, 2016

Dear Ms. Robbins-Meyer:

This letter is to inform you that the San Dieguito Water District (Water District) is updating its Urban Water Management Plan (UWMP). California State law requires urban water suppliers to update their UWMPs every five years and notify the cities and counties within their service area that a plan is being prepared. The Water District must adopt an updated UWMP by June 15, 2016, and submit the adopted plan to the California Department of Water Resources by July 1, 2016.

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San Dieguito Water District welcomes public input as it prepares its draft 2015 UWMP update. Please contact Blair A. Knoll at (760) 633-2793, or email at BKnoll@SDWD.org, if you wish to review or provide comments on the Water District's UWMP 2015 update.

Sincerely,

Bill O'Donnell, PE
General Manager



SAN DIEGUITO WATER DISTRICT
160 CALLE MAGDALENA
ENCINITAS, CA 92024
PHONE: (760) 633-2709
FAX: (760) 436-3592

**Notice of San Dieguito Water District's
2015 Urban Water Management Plan Preparation**

Karen P. Brust, City Manager
City of Encinitas
505 South Vulcan Ave
Encinitas, CA 92024

Date: March 14, 2016
Amended Notice: May 24, 2016

Dear Ms. Brust:

This letter is to inform you that the San Dieguito Water District (Water District) is updating its Urban Water Management Plan (UWMP). California State law requires urban water suppliers to update their UWMPs every five years and notify the cities and counties within their service area that a plan is being prepared. The Water District must adopt an updated UWMP by June 15, 2016, and submit the adopted plan to the California Department of Water Resources by July 1, 2016.

The UWMP is required to contain a detailed evaluation of the supplies necessary to reliably meet demands over at least a 20-year period in both normal and dry years. In accordance with State law, the Water District will distribute a copy of its draft 2015 UWMP to the cities and county within its service area for public review at least two weeks prior to holding a tentatively scheduled public hearing ~~in May 18, 2016~~ **June 15, 2016**.

San Dieguito Water District welcomes public input as it prepares its draft 2015 UWMP update. Please contact Blair A. Knoll at (760) 633-2793, or email at BKnoll@SDWD.org, if you wish to review or provide comments on the Water District's UWMP 2015 update.

Sincerely,

Bill O'Donnell, PE
General Manager



SAN DIEGUITO WATER DISTRICT
160 CALLE MAGDALENA
ENCINITAS, CA 92024
PHONE: (760) 633-2709
FAX: (760) 436-3592

**Notice of San Dieguito Water District's
2015 Urban Water Management Plan Preparation**

Kimberly A. Thorner
General Manager
1966 Olivenhain Road
Encinitas, CA 92024

Date: March 14, 2016
Amended Notice: May 24, 2016

Dear Ms. Thorner:

This letter is to inform you that the San Dieguito Water District (Water District) is updating its Urban Water Management Plan (UWMP). California State law requires urban water suppliers to update their UWMPs every five years and notify the cities and counties within their service area that a plan is being prepared. The Water District must adopt an updated UWMP by June 15, 2016, and submit the adopted plan to the California Department of Water Resources by July 1, 2016.

The UWMP is required to contain a detailed evaluation of the supplies necessary to reliably meet demands over at least a 20-year period in both normal and dry years. In accordance with State law, the Water District will distribute a copy of its draft 2015 UWMP to the cities and county within its service area for public review at least two weeks prior to holding a tentatively scheduled public hearing in ~~May 18, 2016~~ **June 15, 2016**.

San Dieguito Water District welcomes public input as it prepares its draft 2015 UWMP update. Please contact Blair A. Knoll at (760) 633-2793, or email at BKnoll@SDWD.org, if you wish to review or provide comments on the Water District's UWMP 2015 update.

Sincerely,

Bill O'Donnell, PE
General Manager



SAN DIEGUITO WATER DISTRICT
160 CALLE MAGDALENA
ENCINITAS, CA 92024
PHONE: (760) 633-2709
FAX: (760) 436-3592

Notice of San Dieguito Water District's 2015 Urban Water Management Plan Preparation

Michael Bardin, General Manager
Santa Fe Irrigation District
5920 Linea Del Cielo
P.O. Box 409
Rancho Santa Fe, CA 92067-0409

Date: March 14, 2016
Amended Notice: May 24, 2016

Dear Mr. Bardin:

This letter is to inform you that the San Dieguito Water District (Water District) is updating its Urban Water Management Plan (UWMP). California State law requires urban water suppliers to update their UWMPs every five years and notify the cities and counties within their service area that a plan is being prepared. The Water District must adopt an updated UWMP by June 15, 2016, and submit the adopted plan to the California Department of Water Resources by July 1, 2016.

The UWMP is required to contain a detailed evaluation of the supplies necessary to reliably meet demands over at least a 20-year period in both normal and dry years. In accordance with State law, the Water District will distribute a copy of its draft 2015 UWMP to the cities and county within its service area for public review at least two weeks prior to holding a tentatively scheduled public hearing in ~~May 18, 2016~~ **June 15, 2016**.

San Dieguito Water District welcomes public input as it prepares its draft 2015 UWMP update. Please contact Blair A. Knoll at (760) 633-2793, or email at BKnoll@SDWD.org, if you wish to review or provide comments on the Water District's UWMP 2015 update.

Sincerely,

Bill O'Donnell, PE
General Manager



SAN DIEGUITO WATER DISTRICT
160 CALLE MAGDALENA
ENCINITAS, CA 92024
PHONE: (760) 633-2709
FAX: (760) 436-3592

**Notice of San Dieguito Water District's
2015 Urban Water Management Plan Preparation**

Dennis O. Lamb, General Manager
Vallecitos Water District
201 Vallecitos de Oro
San Marcos, CA 92069

Date: March 14, 2016
Amended Notice: May 24, 2016

Dear Mr. Lamb:

This letter is to inform you that the San Dieguito Water District (Water District) is updating its Urban Water Management Plan (UWMP). California State law requires urban water suppliers to update their UWMPs every five years and notify the cities and counties within their service area that a plan is being prepared. The Water District must adopt an updated UWMP by June 15, 2016, and submit the adopted plan to the California Department of Water Resources by July 1, 2016.

The UWMP is required to contain a detailed evaluation of the supplies necessary to reliably meet demands over at least a 20-year period in both normal and dry years. In accordance with State law, the Water District will distribute a copy of its draft 2015 UWMP to the cities and county within its service area for public review at least two weeks prior to holding a tentatively scheduled public hearing in ~~May 18, 2016~~ **June 15, 2016**.

San Dieguito Water District welcomes public input as it prepares its draft 2015 UWMP update. Please contact Blair A. Knoll at (760) 633-2793, or email at BKnoll@SDWD.org, if you wish to review or provide comments on the Water District's UWMP 2015 update.

Sincerely,

Bill O'Donnell, PE
General Manager



SAN DIEGUITO WATER DISTRICT
160 CALLE MAGDALENA
ENCINITAS, CA 92024
PHONE: (760) 633-2709
FAX: (760) 436-3592

**Notice of San Dieguito Water District's
2015 Urban Water Management Plan Preparation**

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

Date: March 14, 2016
Amended Notice: May 24, 2016

Dear Mr. Thomas:

This letter is to inform you that the San Dieguito Water District (Water District) is updating its Urban Water Management Plan (UWMP). California State law requires urban water suppliers to update their UWMPs every five years and notify the cities and counties within their service area that a plan is being prepared. The Water District must adopt an updated UWMP by June 15, 2016, and submit the adopted plan to the California Department of Water Resources by July 1, 2016.

The UWMP is required to contain a detailed evaluation of the supplies necessary to reliably meet demands over at least a 20-year period in both normal and dry years. In accordance with State law, the Water District will distribute a copy of its draft 2015 UWMP to the cities and county within its service area for public review at least two weeks prior to holding a tentatively scheduled public hearing in ~~May 18, 2016~~ **June 15, 2016**.

San Dieguito Water District welcomes public input as it prepares its draft 2015 UWMP update. Please contact Blair A. Knoll at (760) 633-2793, or email at BKnoll@SDWD.org, if you wish to review or provide comments on the Water District's UWMP 2015 update.

Sincerely,

Bill O'Donnell, PE
General Manager



SAN DIEGUITO WATER DISTRICT
160 CALLE MAGDALENA
ENCINITAS, CA 92024
PHONE: (760) 633-2709
FAX: (760) 436-3592

Notice of San Dieguito Water District's 2015 Urban Water Management Plan Preparation

Michael Thornton, General Manager
San Elijo JPA
2695 Manchester Ave
Cardiff, CA 92007

Date: March 14, 2016
Amended Notice: May 24, 2016

Dear Mr. Thornton:

This letter is to inform you that the San Dieguito Water District (Water District) is updating its Urban Water Management Plan (UWMP). California State law requires urban water suppliers to update their UWMPs every five years and notify the cities and counties within their service area that a plan is being prepared. The Water District must adopt an updated UWMP by June 15, 2016, and submit the adopted plan to the California Department of Water Resources by July 1, 2016.

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Sincerely,

Bill O'Donnell, PE
General Manager

Appendix D – AWWA Water Audit Software Reporting Worksheet



AWWA Free Water Audit Software: Reporting Worksheet

WAS v5.0

American Water Works Association.
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Click to access definition
 Click to add a comment

Water Audit Report for: **San Dieguito Water District**
Reporting Year: **2015** **7/2014 - 6/2015**

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: ACRE-FEET 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' ----->

Volume from own sources:	+ ? 10	4,434.300	acre-ft/yr	+ ? 10	<input checked="" type="radio"/> <input type="radio"/>		acre-ft/yr
Water imported:	+ ? 10	1,900.800	acre-ft/yr	+ ? 10	<input checked="" type="radio"/> <input type="radio"/>		acre-ft/yr
Water exported:	+ ?		acre-ft/yr	+ ?	<input checked="" type="radio"/> <input type="radio"/>		acre-ft/yr

Enter negative % or value for under-registration
Enter positive % or value for over-registration

WATER SUPPLIED: **6,335.100** acre-ft/yr

AUTHORIZED CONSUMPTION

Billed metered:	+ ? 10	6,108.300	acre-ft/yr
Billed unmetered:	+ ? n/a	0.000	acre-ft/yr
Unbilled metered:	+ ? n/a	0.000	acre-ft/yr
Unbilled unmetered:	+ ?	1.000	acre-ft/yr

Click here:
for help using option
buttons below

Pcnt: Value:
 1.000 acre-ft/yr

Use buttons to select
percentage of water
supplied
OR
value

AUTHORIZED CONSUMPTION: **6,109.300** acre-ft/yr

WATER LOSSES (Water Supplied - Authorized Consumption) **225.800** acre-ft/yr

Apparent Losses

Unauthorized consumption: + ? **15.838** acre-ft/yr

Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed

Customer metering inaccuracies:	+ ?	0.000	acre-ft/yr
Systematic data handling errors:	+ ?	15.271	acre-ft/yr

Default option selected for Systematic data handling errors - a grading of 5 is applied but not displayed

Apparent Losses: **31.109** acre-ft/yr

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses: **194.692** acre-ft/yr

WATER LOSSES: **225.800** acre-ft/yr

NON-REVENUE WATER

NON-REVENUE WATER: **226.800** acre-ft/yr

= Water Losses + Unbilled Metered + Unbilled Unmetered

SYSTEM DATA

Length of mains:	+ ?		miles
Number of <u>active</u> AND <u>inactive</u> service connections:	+ ?		
Service connection density:	+ ?		conn./mile main

Are customer meters typically located at the curbside or property line?
Average length of customer service line: + ? ft (length of service line, beyond the property boundary, that is the responsibility of the utility)

Average operating pressure: + ? psi

COST DATA

Total annual cost of operating water system:	+ ?		\$/Year
Customer retail unit cost (applied to Apparent Losses):	+ ?		
Variable production cost (applied to Real Losses):	+ ?		\$/acre-ft <input type="checkbox"/> Use Customer Retail Unit Cost to value real losses

WATER AUDIT DATA VALIDITY SCORE:

Add a grading value for 9 parameter(s) to enable an audit score to be calculated

PRIORITY AREAS FOR ATTENTION:

Based on the information provided, audit accuracy can be improved by addressing the following components:

- 1: Customer metering inaccuracies
- 2: Total annual cost of operating water system
- 3: Customer retail unit cost (applied to Apparent Losses)

Appendix E – Climate Change Vulnerability Assessment

Climate Change Vulnerability Assessment

I. Water Demand

1. Are there major industries that require cooling/process water in your planning region?

No. There is no industrial users within the District's service area.

2. Does water use vary by more than 50% seasonally in parts of your region?

Yes. Based on the District's 2013 to 2015 monthly water uses record, the minimum monthly water use is 30% less than the average monthly water use, and the maximum monthly water use is 23% more than the average monthly water use.

3. Are crops grown in your region climate-sensitive? Would shifts in daily heat patterns, such as how long heat lingers before night-time cooling, be prohibitive for some crops?

Yes. Based on the City of Encinitas General Plan Update Current Conditions Report (GPUCCR), developed in November 2010, less than 5% of the land of Encinitas is for agricultural use. The primary crops growing in Encinitas are flowers, mainly ornamental flowers. The potential increases in temperature, decreases in annual precipitation levels, and other climatic changes would have moderate to significant impacts on the agricultural operations.

4. Do groundwater supplies in your region lack resiliency after drought events?

No. Groundwater is not utilized for water supply in the District's service area.

5. Are water use curtailment measures effective in your region?

Yes. The District Board declares Water Supply Shortage Response Level 3 Condition and approves other drought actions and water conservation programs to restrict certain water use and reduce water consumption.

6. Are some instream flow requirements in your region either currently insufficient to support aquatic life, or occasionally unmet?

No.

II. Water Supply

1. Does a portion of the water supply in your region come from snowmelt?

Yes. The District's imported water is supplied from the State Water Project, the Delta, and the Colorado River Aqueduct. According to the MWD's 2015 UWMP,

Water supplies from the State Water Project is based on the statewide snowpack. The supply from the Colorado River is also affected by available snowpack. The District's local water supply is from Lake Hodges, which captures runoff during rainy seasons.

2. Does part of your region rely on water diverted from the Delta, imported from the Colorado River, or imported from other climate-sensitive systems outside your region?
Yes. The District imports water from the State Water Project and the Colorado River Aqueduct.
3. Does part of your region rely on coastal aquifers/ Has salt intrusion been a problem in the past?
No.
4. Would your region have difficulty in storing carryover supply surpluses from year to year?
No. The District jointly owns, with the SFID, the 1,100 acre-foot raw water San Dieguito Reservoir, and a covered 40 acre-foot treated water reservoir. The District owns two underground treated water reservoirs with combined capacities of 31 acre-foot.
5. Has your region faced a drought in the past during which it failed to meet local water demands?
No. The District's water supply meets the water demands.
6. Does your region have invasive species management issues at your facilities, along conveyance structures, or in habitat areas?
No. The City of Encinitas has adopted Invasive Plant Policy that aims to curb the potentially negative impacts that invasive plants may have on native landscapes.

III. Water Quality

1. Are increased wildfires a threat in your region? If so, does your region include reservoirs with fire-susceptible vegetation nearby which could pose a water quality concern from increased erosion?
No. According to the California Public Interest Energy Research Program, the District's service area has 0.1-fold increase in potential area burned.

2. Does part of your region rely on surface water bodies with current or recurrent water quality issues related to eutrophication, such as low dissolved oxygen or algal blooms? Are there other water quality constituents potentially exacerbated by climate change?
Yes. Due to the drought conditions, willow trees grown in the lake bed of Lake Hodges are decaying and degrading the water quality.
3. Are seasonal low flows decreasing for some water bodies in your region? If so, are the reduced low flows limiting the water bodies' assimilative capacity?
Yes. Due to the drought conditions, the reduced low flows that captured by Lake Hodges are in higher pollutant concentrations.
4. Are there beneficial uses designated for some water bodies in your region that cannot always be met due to water quality issues?
No.
5. Does part of your region currently observe water quality shifts during rain events that impact treatment facility operation?
No.

IV. Sea Level Rise

1. Has coastal erosion already been observed in your region?
Yes. According to the City of Encinitas's GPUCCR, coastal erosion has been observed along the North San Diego County coastline, including the City of Encinitas's beaches.
2. Are there coastal structures, such as levees or breakwaters, in your region?
Yes. The district has existing seawalls to protect the coastal bluffs.
3. Is there significant coastal infrastructure, such as residences, recreation, water and wastewater treatment, tourism, and transportation, at less than six feet above mean sea level in your region?
No. Excluding San Elijo Lagoon and Moonlight Beach, the entire City of Encinitas's coastline consists of steep coastal bluffs ranging in height from approximately 40 ft to 120 ft.
4. Are there climate-sensitive low-lying coastal habitats in your region?
Yes. There is a variety of wetland communities in the City of Encinitas, and some of them rely on a delicate balance of freshwater and salt water, such as coastal

and valley freshwater marsh, saltpan/mudflats, southern coastal salt marsh and freshwater marsh. Bastiquitos and San Elijo Lagoon are the two coastal lagoons that support a mixture of salt marsh and freshwater marsh habitats.

5. Are there areas in your region that currently flood during extreme high tides or storm surges?
No.
6. Is there land subsidence in the coastal areas of your region?
No.
7. Do Tidal gauges along the coastal parts of your region show an increase over the past several decades?
Yes. According to the City's GPUCCR, the La Jolla tide gauge recorded a slow increase of 0.15 foot per century in sea level rise between 1980 and 2009.

V. Flooding

1. Does critical infrastructure in your region lie within the 200-year floodplain?
No. According to the DWR's best available floodplain maps, the District is not within the 200-year floodplain.
2. Does part of your region lie within the Sacramento-San Joaquin Drainage District?
No.
3. Does aging critical flood protection infrastructure exist in your region?
No.
4. Have flood control facilities (such as impoundment structures) been insufficient in the past?
No.
5. Are wildfires a concern in parts of your region?
No.

VI. Ecosystem and Habitat Vulnerability

1. Does your region include inland or coastal aquatic habitats vulnerable to erosion and sedimentation issues?
Yes. Change to the bed, channel, or bank of any river, stream or lake will impact plants, fishes and wildlife.
2. Does your region include estuarine habitats which rely on seasonal freshwater flow patterns?
No.
3. Do climate-sensitive fauna or flora populations live in your region?
Yes. Exhibit 13-5 of the City's GPUCCR lists the sensitive fauna and flora species within the City's General Plan Area.
4. Do endangered or threatened species exist in your region? Are changes in species distribution already being observed in parts of your region?
Yes. Exhibit 13-4 and 13-5 of the City's GPUCCR identify the endangered and threatened species within the City's General Plan Area.
5. Does the region rely on aquatic or water-dependent habitats for recreation or other economic activities?
No.
6. Are there rivers in your region with quantified environmental flow requirements or known water quality/quantity stressors to aquatic life?
No.
7. Do estuaries, coastal dunes, wetlands, marshes, or exposed beaches exist in your region? If so, are coastal storms possible/ frequent in your region?
Yes. The City's GPUCCR discussed the estuaries, wetlands, marshes, and exposed beaches within the region. Coastal storms are possible within the region.
8. Does your region include one or more of the habitats described in the Endangered Species Coalition's Top 10 habitats vulnerable to climate change?
No.
9. Are there areas of fragmented estuarine, aquatic, or wetland wildlife habitat within your region? Are there movement corridors for species to naturally migrate? Are there infrastructure projects planned that might preclude species movement?

Yes. The City of Encinitas provides migratory birds with two protected estuary waters in southern California along the Pacific Flyway. Grassland within the City's Planning Area provide foraging habitat for raptors and provide movement corridors and habitat linkages that are critical to the San Diego North County Multiple Habitat Conservation Program (MHCP) species.

VII. Hydropower

1. Is hydropower a source of electricity in your region?

No.

2. Are energy needs in your region expected to increase in the future? If so, are there future plans for hydropower generation facilities or conditions for hydropower generation in your region?

No.

Appendix F – SB X7-7 Verification Form



SB X7-7 Verification Form Version FINAL.1

Table 4-C.4 has been modified from the FINAL version.

WUEdata Entry Exceptions	
The data from the tables below will not be entered into WUEdata tables (the tabs for these tables' worksheets are colored purple). These tables will be submitted as separate uploads, in Excel, to WUEdata.	
Process Water Deduction	
SB X7-7 tables 4-C, 4-C.1, 4-C.2, 4-C.3, 4-C.4 and 4-D	A
supplier that will use the process water deduction will complete the appropriate tables in Excel, submit them as a separate upload to the WUE data tool, and include them in its UWMP.	
Target Method 2	
SB X7-7 tables 7-B, 7-C, and 7-D	
A supplier that selects Target Method 2 will contact DWR (gwen.huff@water.ca.gov) for SB X7-7 tables 7-B, 7-C, and 7-D.	
Target Method 4	
These tables are only available online at http://www.dwr.water.ca.gov/wateruseefficiency/sb7/committees/urban/u4/ptm4.cfm	A supplier
that selects Target Method 4 will save the tables from the website listed above, complete the tables, submit as a separate upload to WUE data, and include them with its UWMP.	

SB X7-7 Table 0: Units of Measure Used in UWMP*

(select one from the drop down list)

Acre Feet

**The unit of measure must be consistent with Table 2-3*

NOTES:

SB X7-7 Table-1: Baseline Period Ranges

Baseline	Parameter	Value	Units
10- to 15-year baseline period	2008 total water deliveries	7,292	Acre Feet
	2008 total volume of delivered recycled water	600	Acre Feet
	2008 recycled water as a percent of total deliveries	8.23%	Percent
	Number of years in baseline period ^{1,2}	10	Years
	Year beginning baseline period range	1996	
	Year ending baseline period range ³	2005	
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.

NOTES:

SB X7-7 Table 2: Method for Population Estimates

Method Used to Determine Population (may check more than one)	
<input type="checkbox"/>	1. Department of Finance (DOF) DOF Table E-8 (1990 - 2000) and (2000-2010) and DOF Table E-5 (2011 - 2015) when available
<input type="checkbox"/>	2. Persons-per-Connection Method
<input checked="" type="checkbox"/>	3. DWR Population Tool
<input type="checkbox"/>	4. Other DWR recommends pre-review
NOTES:	

SB X7-7 Table 3: Service Area Population		
Year		Population
10 to 15 Year Baseline Population		
Year 1	1996	34,097
Year 2	1997	34,368
Year 3	1998	34,643
Year 4	1999	34,930
Year 5	2000	35,219
Year 6	2001	35,483
Year 7	2002	35,795
Year 8	2003	36,109
Year 9	2004	36,436
Year 10	2005	36,768
<i>Year 11</i>		
<i>Year 12</i>		
<i>Year 13</i>		
<i>Year 14</i>		
<i>Year 15</i>		
5 Year Baseline Population		
Year 1	2004	36,436
Year 2	2005	36,768
Year 3	2006	36,660
Year 4	2007	36,552
Year 5	2008	36,441
2015 Compliance Year Population		
2015		37,200
NOTES:		

SB X7-7 Table 4: Annual Gross Water Use *

Baseline Year <i>Fm SB X7-7 Table 3</i>	Volume Into Distribution System <i>This column will remain blank until SB X7-7 Table 4-A is completed.</i>	Deductions					Annual Gross Water Use
		Exported Water	Change in Dist. System Storage (+/-)	Indirect Recycled Water <i>This column will remain blank until SB X7-7 Table 4-B is completed.</i>	Water Delivered for Agricultural Use	Process Water <i>This column will remain blank until SB X7-7 Table 4-D is completed.</i>	
10 to 15 Year Baseline - Gross Water Use							
Year 1	1996	7,249			-		7,249
Year 2	1997	7,858			-		7,858
Year 3	1998	7,334			-		7,334
Year 4	1999	7,782			-		7,782
Year 5	2000	8,168			-		8,168
Year 6	2001	7,535			-		7,535
Year 7	2002	7,354			-		7,354
Year 8	2003	7,288			-		7,288
Year 9	2004	7,179			-		7,179
Year 10	2005	6,962			-		6,962
Year 11	0	-			-		-
Year 12	0	-			-		-
Year 13	0	-			-		-
Year 14	0	-			-		-
Year 15	0	-			-		-
10 - 15 year baseline average gross water use							7,471
5 Year Baseline - Gross Water Use							
Year 1	2004	7,179			-		7,179
Year 2	2005	6,962			-		6,962
Year 3	2006	7,281			-		7,281
Year 4	2007	7,587			-		7,587
Year 5	2008	7,297			-		7,297
5 year baseline average gross water use							7,261
2015 Compliance Year - Gross Water Use							
2015		6,316	-		-		6,316
* NOTE that the units of measure must remain consistent throughout the UWMP, as reported in Table 2-3							
NOTES:							

SB X7-7 Table 4-A: Volume Entering the Distribution System(s)

Complete one table for each source.

Name of Source		Treated Water From R.E. Badger Filtration Plant		
This water source is:				
<input checked="" type="checkbox"/>	The supplier's own water source			
<input checked="" type="checkbox"/>	A purchased or imported source			
Baseline Year <i>Fm SB X7-7 Table 3</i>	Volume Entering Distribution System	Meter Error Adjustment* <i>Optional (+/-)</i>	Corrected Volume Entering Distribution System	
10 to 15 Year Baseline - Water into Distribution System				
Year 1	1996	7,249		7,249
Year 2	1997	7,858		7,858
Year 3	1998	7,334		7,334
Year 4	1999	7,782		7,782
Year 5	2000	8,168		8,168
Year 6	2001	7,535		7,535
Year 7	2002	7,354		7,354
Year 8	2003	7,288		7,288
Year 9	2004	7,179		7,179
Year 10	2005	6,962		6,962
Year 11	0			-
Year 12	0			-
Year 13	0			-
Year 14	0			-
Year 15	0			-
5 Year Baseline - Water into Distribution System				
Year 1	2004	7,179		7,179
Year 2	2005	6,962		6,962
Year 3	2006	7,281		7,281
Year 4	2007	7,587		7,587
Year 5	2008	7,297		7,297
2015 Compliance Year - Water into Distribution System				
	2015	6,316		6,316
* Meter Error Adjustment - See guidance in Methodology 1, Step 3 of Methodologies Document				
NOTES:				

SB X7-7 Table 4-B: Indirect Recycled Water Use Deduction (For use only by agencies that are deducting indirect recycled water)

Baseline Year <i>Fm SB X7-7 Table 3</i>	Surface Reservoir Augmentation					Groundwater Recharge			Total Deductible Volume of Indirect Recycled Water Entering the Distribution System
	Volume Discharged from Reservoir for Distribution System Delivery	Percent Recycled Water	Recycled Water Delivered to Treatment Plant	Transmission/ Treatment Loss	Recycled Volume Entering Distribution System from Surface Reservoir Augmentation	Recycled Water Pumped by Utility*	Transmission/ Treatment Losses	Recycled Volume Entering Distribution System from Groundwater Recharge	
10-15 Year Baseline - Indirect Recycled Water Use									
Year 1	1996		-		-			-	-
Year 2	1997		-		-			-	-
Year 3	1998		-		-			-	-
Year 4	1999		-		-			-	-
Year 5	2000		-		-			-	-
Year 6	2001		-		-			-	-
Year 7	2002		-		-			-	-
Year 8	2003		-		-			-	-
Year 9	2004		-		-			-	-
Year 10	2005		-		-			-	-
Year 11	0		-		-			-	-
Year 12	0		-		-			-	-
Year 13	0		-		-			-	-
Year 14	0		-		-			-	-
Year 15	0		-		-			-	-
5 Year Baseline - Indirect Recycled Water Use									
Year 1	2004		-		-			-	-
Year 2	2005		-		-			-	-
Year 3	2006		-		-			-	-
Year 4	2007		-		-			-	-
Year 5	2008		-		-			-	-
2015 Compliance - Indirect Recycled Water Use									
2015			-		-			-	-

*Suppliers will provide supplemental sheets to document the calculation for their input into "Recycled Water Pumped by Utility". The volume reported in this cell must be less than total groundwater pumped - See Methodology 1, Step 8, section 2.c.

NOTES:

SB X7-7 Table 4-C: Process Water Deduction Eligibility

(For use only by agencies that are deducting process water) Choose Only One

	Criteria 1 - Industrial water use is equal to or greater than 12% of gross water use. Complete SB X7-7 Table 4-C.1
	Criteria 2 - Industrial water use is equal to or greater than 15 GPCD. Complete SB X7-7 Table 4-C.2
	Criteria 3 - Non-industrial use is equal to or less than 120 GPCD. Complete SB X7-7 Table 4-C.3
	Criteria 4 - Disadvantaged Community. Complete SB x7-7 Table 4-C.4

NOTES:

SB X7-7 Table 4-C.1: Process Water Deduction Eligibility

Criteria 1

Industrial water use is equal to or greater than 12% of gross water use

Baseline Year <i>Fm SB X7-7 Table 3</i>	Gross Water Use Without Process Water Deduction	Industrial Water Use	Percent Industrial Water	Eligible for Exclusion Y/N
10 to 15 Year Baseline - Process Water Deduction Eligibility				
Year 1	1996	7,249	0%	NO
Year 2	1997	7,858	0%	NO
Year 3	1998	7,334	0%	NO
Year 4	1999	7,782	0%	NO
Year 5	2000	8,168	0%	NO
Year 6	2001	7,535	0%	NO
Year 7	2002	7,354	0%	NO
Year 8	2003	7,288	0%	NO
Year 9	2004	7,179	0%	NO
Year 10	2005	6,962	0%	NO
Year 11	0	-		NO
Year 12	0	-		NO
Year 13	0	-		NO
Year 14	0	-		NO
Year 15	0	-		NO
5 Year Baseline - Process Water Deduction Eligibility				
Year 1	2004	7,179	0%	NO
Year 2	2005	6,962	0%	NO
Year 3	2006	7,281	0%	NO
Year 4	2007	7,587	0%	NO
Year 5	2008	7,297	0%	NO
2015 Compliance Year - Process Water Deduction Eligibility				
2015	6,316		0%	NO

NOTES:

SB X7-7 Table 4-C.2: Process Water Deduction Eligibility

Criteria 2

Industrial water use is equal to or greater than 15 GPCD

Baseline Year <i>Fm SB X7-7 Table 3</i>	Industrial Water Use	Population	Industrial GPCD	Eligible for Exclusion Y/N
10 to 15 Year Baseline - Process Water Deduction Eligibility				
Year 1	1996		34,097	- NO
Year 2	1997		34,368	- NO
Year 3	1998		34,643	- NO
Year 4	1999		34,930	- NO
Year 5	2000		35,219	- NO
Year 6	2001		35,483	- NO
Year 7	2002		35,795	- NO
Year 8	2003		36,109	- NO
Year 9	2004		36,436	- NO
Year 10	2005		36,768	- NO
<i>Year 11</i>	0		-	NO
<i>Year 12</i>	0		-	NO
<i>Year 13</i>	0		-	NO
<i>Year 14</i>	0		-	NO
<i>Year 15</i>	0		-	NO
5 Year Baseline - Process Water Deduction Eligibility				
Year 1	2004		36,436	- NO
Year 2	2005		36,768	- NO
Year 3	2006		36,660	- NO
Year 4	2007		36,552	- NO
Year 5	2008		36,441	- NO
2015 Compliance Year - Process Water Deduction Eligibility				
2015			37,200	- NO

NOTES:

SB X7-7 Table 4-C.3: Process Water Deduction Eligibility

Criteria 3

Non-industrial use is equal to or less than 120 GPCD

Baseline Year <i>Fm SB X7-7 Table 3</i>	Gross Water Use Without Process Water Deduction <i>Fm SB X7-7 Table 4</i>	Industrial Water Use	Non-industrial Water Use	Population <i>Fm SB X7-7 Table 3</i>	Non-Industrial GPCD	Eligible for Exclusion Y/N	
10 to 15 Year Baseline - Process Water Deduction Eligibility							
Year 1	1996	7,249		7,249	34,097	190	NO
Year 2	1997	7,858		7,858	34,368	204	NO
Year 3	1998	7,334		7,334	34,643	189	NO
Year 4	1999	7,782		7,782	34,930	199	NO
Year 5	2000	8,168		8,168	35,219	207	NO
Year 6	2001	7,535		7,535	35,483	190	NO
Year 7	2002	7,354		7,354	35,795	183	NO
Year 8	2003	7,288		7,288	36,109	180	NO
Year 9	2004	7,179		7,179	36,436	176	NO
Year 10	2005	6,962		6,962	36,768	169	NO
<i>Year 11</i>	0	-		-	-	-	NO
<i>Year 12</i>	0	-		-	-	-	NO
<i>Year 13</i>	0	-		-	-	-	NO
<i>Year 14</i>	0	-		-	-	-	NO
<i>Year 15</i>	0	-		-	-	-	NO
5 Year Baseline - Process Water Deduction Eligibility							
Year 1	2004	7,179		7,179	36,436	176	NO
Year 2	2005	6,962		6,962	36,768	169	NO
Year 3	2006	7,281		7,281	36,660	177	NO
Year 4	2007	7,587		7,587	36,552	185	NO
Year 5	2008	7,297		7,297	36,441	179	NO
2015 Compliance Year - Process Water Deduction Eligibility							
2015		6,316		6,316	37,200	152	NO

NOTES:

SB X7-7 Table 4-C.4: Process Water Deduction Eligibility

Criteria 4

Disadvantaged Community. A "Disadvantaged Community" (DAC) is a community with a median household income less than 80 percent of the statewide average.

SELECT ONE

"Disadvantaged Community" status was determined using one of the methods listed below:

1. IRWM DAC Mapping tool

http://www.water.ca.gov/irwm/grants/resources_dac.cfm

If using the IRWM DAC Mapping Tool, include a screen shot from the tool showing that the service area is considered a DAC.

2. 2010 Median Income

California Median Household Income		Service Area Median Household Income	Percentage of Statewide Average	Eligible for Exclusion? Y/N
2015 Compliance Year - Process Water Deduction Eligibility				
2010	\$60,883		0%	YES

NOTES:

SB X7-7 Table 4-D: Process Water Deduction - Volume
separate table for each industrial customer with a process water exclusion

Complete a

Name of Industrial Customer		Industrial Customer 1				
Baseline Year <i>Fm SB X7-7 Table 3</i>	Industrial Customer's Total Water Use	Total Volume Supplied by Water Agency	% of Water Supplied by Water Agency	Customer's Total Process Water Use	Volume of Process Water Eligible for Exclusion for this Customer	
10 to 15 Year Baseline - Process Water Deduction						
Year 1	1996				-	
Year 2	1997				-	
Year 3	1998				-	
Year 4	1999				-	
Year 5	2000				-	
Year 6	2001				-	
Year 7	2002				-	
Year 8	2003				-	
Year 9	2004				-	
Year 10	2005				-	
<i>Year 11</i>	0				-	
<i>Year 12</i>	0				-	
<i>Year 13</i>	0				-	
<i>Year 14</i>	0				-	
<i>Year 15</i>	0				-	
5 Year Baseline - Process Water Deduction						
Year 1	2004				-	
Year 2	2005				-	
Year 3	2006				-	
Year 4	2007				-	
Year 5	2008				-	
2015 Compliance Year - Process Water Deduction						
2015					-	
NOTES:						

SB X7-7 Table 5: Gallons Per Capita Per Day (GPCD)				
Baseline Year <i>Fm SB X7-7 Table 3</i>		Service Area Population <i>Fm SB X7-7 Table 3</i>	Annual Gross Water Use <i>Fm SB X7-7 Table 4</i>	Daily Per Capita Water Use (GPCD)
10 to 15 Year Baseline GPCD				
Year 1	1996	34,097	7,249	190
Year 2	1997	34,368	7,858	204
Year 3	1998	34,643	7,334	189
Year 4	1999	34,930	7,782	199
Year 5	2000	35,219	8,168	207
Year 6	2001	35,483	7,535	190
Year 7	2002	35,795	7,354	183
Year 8	2003	36,109	7,288	180
Year 9	2004	36,436	7,179	176
Year 10	2005	36,768	6,962	169
<i>Year 11</i>	0	-	-	
<i>Year 12</i>	0	-	-	
<i>Year 13</i>	0	-	-	
<i>Year 14</i>	0	-	-	
<i>Year 15</i>	0	-	-	
10-15 Year Average Baseline GPCD				189
5 Year Baseline GPCD				
Baseline Year <i>Fm SB X7-7 Table 3</i>		Service Area Population <i>Fm SB X7-7 Table 3</i>	Gross Water Use <i>Fm SB X7-7 Table 4</i>	Daily Per Capita Water Use
Year 1	2004	36,436	7,179	176
Year 2	2005	36,768	6,962	169
Year 3	2006	36,660	7,281	177
Year 4	2007	36,552	7,587	185
Year 5	2008	36,441	7,297	179
5 Year Average Baseline GPCD				177
2015 Compliance Year GPCD				
2015		37,200	6,316	152
NOTES:				

SB X7-7 Table 6: Gallons per Capita per Day
Summary From Table SB X7-7 Table 5

10-15 Year Baseline GPCD	189
5 Year Baseline GPCD	177
2015 Compliance Year GPCD	152
NOTES:	

SB X7-7 Table 7: 2020 Target Method*Select Only One*

Target Method		Supporting Documentation
<input checked="" type="checkbox"/>	Method 1	SB X7-7 Table 7A
<input type="checkbox"/>	Method 2	SB X7-7 Tables 7B, 7C, and 7D <i>Contact DWR for these tables</i>
<input type="checkbox"/>	Method 3	SB X7-7 Table 7-E
<input type="checkbox"/>	Method 4	Method 4 Calculator

NOTES:

SB X7-7 Table 7-A: Target Method 1

20% Reduction

10-15 Year Baseline GPCD	2020 Target GPCD
189	151

NOTES:

Tables for Target Method 2 (SB X7-7 Tables 7-B, 7-C, and 7-D) are not included in the SB X7-7 Verification Form, but are still required for water suppliers using Target Method 2. These water suppliers should contact Gwen Huff at (916) 651-9672 or gwen.huff@water.ca.gov

SB X7-7 Table 7-C: Target Method 2

Target CII Water Use

Tables for Target Method 2 (SB X7-7 Tables 7-B, 7-C, and 7-D) are not included in the SB X7-7 Verification Form, but are still required for water suppliers using Target Method 2. These water suppliers should contact Gwen Huff at (916) 651-9672 or gwen.huff@water.ca.gov

SB X7-7 Table 7-D: Target Method 2 Summary

Tables for Target Method 2 (SB X7-7 Tables 7-B, 7-C, and 7-D) are not included in the SB X7-7 Verification Form, but are still required for water suppliers using Target Method 2. These water suppliers should contact Gwen Huff at (916) 651-9672 or gwen.huff@water.ca.gov

SB X7-7 Table 7-E: Target Method 3

Agency May Select More Than One as Applicable	Percentage of Service Area in This Hydrological Region	Hydrologic Region	"2020 Plan" Regional Targets	Method 3 Regional Targets (95%)
		North Coast	137	130
		North Lahontan	173	164
		Sacramento River	176	167
		San Francisco Bay	131	124
		San Joaquin River	174	165
		Central Coast	123	117
		Tulare Lake	188	179
		South Lahontan	170	162
		South Coast	149	142
		Colorado River	211	200
<p align="center">Target <i>(If more than one region is selected, this value is calculated.)</i></p>				<p align="center">0</p>
<p>NOTES:</p>				

SB X7-7 Table 7-F: Confirm Minimum Reduction for 2020 Target

5 Year Baseline GPCD <i>From SB X7-7 Table 5</i>	Maximum 2020 Target ¹	Calculated 2020 Target ²	Confirmed 2020 Target
177	168	151	151

¹ Maximum 2020 Target is 95% 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.

NOTES:

SB X7-7 Table 8: 2015 Interim Target GPCD

Confirmed 2020 Target <i>Fm SB X7-7 Table 7-F</i>	10-15 year Baseline GPCD <i>Fm SB X7-7 Table 5</i>	2015 Interim Target GPCD
151	189	170

NOTES:

SB X7-7 Table 9: 2015 Compliance

Actual 2015 GPCD	2015 Interim Target GPCD	Optional Adjustments (<i>in GPCD</i>)					2015 GPCD (<i>Adjusted if applicable</i>)	Did Supplier Achieve Targeted Reduction for 2015?
		Enter "0" if Adjustment Not Used			TOTAL Adjustments	Adjusted 2015 GPCD		
		Extraordinary Events	Weather Normalization	Economic Adjustment				
152	170	<i>From Methodology 8 (Optional)</i>	<i>From Methodology 8 (Optional)</i>	<i>From Methodology 8 (Optional)</i>	-	152	152	YES

NOTES:

Appendix G – Regional Alliance Submittal



2015 Regional Alliance Report

Olivenhain Regional Alliance (Draft 05/04/16)

Introduction

As set forth above, the Water Conservation Bill of 2009 (SBX7-7) requires each urban retail water supplier to develop an urban water use target and an interim urban water use target. The legislation authorizes urban retail water suppliers to determine and report progress toward achieving these targets on an individual agency basis or pursuant to a regional alliance as provided in CWC § 10608.28(a). The DWR Guidebook and the DWR Methodologies provide guidance to urban retail water suppliers for purposes of forming and carrying out a regional alliance in accordance with CWC § 10608.28(a) and related provisions of SBX7-7. The DWR Guidebook and the DWR Methodologies provide that 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.

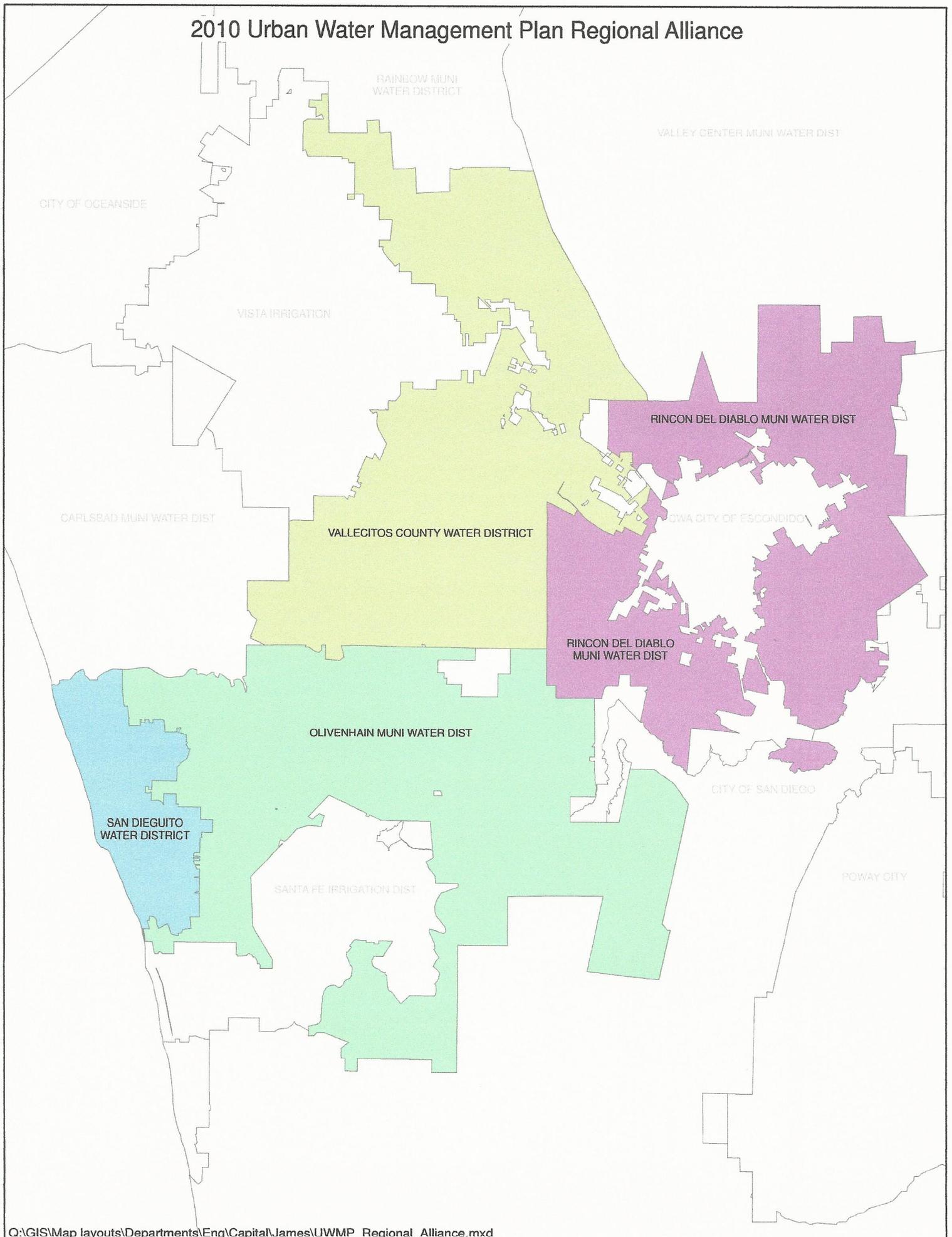
For the 2010 Urban Water Management Plan, Olivenhain Municipal Water District, along with Vallecitos Water District, San Dieguito Water District, and Rincon del Diablo Municipal Water District formed a regional alliance pursuant to CWC § 10608.28(a), the DWR Guidebook, and the DWR Methodologies to cooperatively determine and report progress toward achieving their water use targets on a regional basis. All of these members are recipients of water from a common wholesale water supplier, in this case San Diego County Water Authority, and all of the members are located within the South Coast Hydrologic Region as shown in the California Water Plan. The agencies are shown in the attached map.

The members have entered a cooperative agreement to establish and carry out a regional alliance and they have jointly notified DWR of the formation of their regional alliance. In accordance with the DWR Guidebook and DWR Methodologies, the members have prepared an urban water use target and an interim urban water use target for the region, which is further set forth herein and within each of the other member's individual UWMPs. Furthermore, each member of the regional alliance has developed its own set of interim and urban water use targets, along with other supporting data and determinations, all of which is included in each member's individual UWMP.

Data Reporting for a Regional Alliance

The attached tables below provide the data required for the Olivenhain Regional Alliance, as described in Methodologies for Calculating Baseline and Compliance Urban Per Capita Water Use, Final Draft, February 2016. The Olivenhain Regional Alliance did achieve its targeted reduction for 2015.

2010 Urban Water Management Plan Regional Alliance



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
Olivenhain MWD ¹	351	54,418	19,100,718	
Rincon del Diablo MWD	284	26,434	7,507,256	
San Dieguito Water District	189	35,385	6,687,765	
Vallecitos Water District	199	70,517	14,032,883	
Regional Alliance Total	1,023	186,754	47,328,622	

**All participating agencies must submit individual SB X7-7 Tables, as applicable, showing the individual agency's calculations. These tables are: SB X7-7 Tables 0 through 6, Table 7, any required supporting tables (as stated in SB X7-7 Table 7), and SB X7-7 Table 9, as applicable. These individual agency tables will be submitted with the individual or Regional Urban Water Management Plan.*

NOTES: MWD = Municipal Water District. 1. This is the updated baseline from the 2015 UWMP based on SANDAG's revised population estimates.

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
Olivenhain MWD ¹	281	70,522	19,816,682	
Rincon del Diablo MWD	227	27,476	6,237,052	
San Dieguito Water District	151	37,200	5,617,200	
Vallecitos Water District	159	93,897	14,929,623	
Regional Alliance Total	818	229,095	46,600,557	203

**All participating agencies must submit individual SB X7-7 Tables, as applicable, showing the individual agency's calculations. These tables are: SB X7-7 Tables 0 through 6, Table 7, any required supporting tables (as stated in SB X7-7 Table 7), and SB X7-7 Table 9, as applicable. These individual agency tables will be submitted with the individual or Regional Urban Water Management Plan.*

NOTES: MWD = Municipal Water District. 1. This is the updated target from the 2015 UWMP based on SANDAG's revised population estimates.

SB X7-7 RA1 - 2015 Target

Weighted Average 10-15 year Baseline GPCD	Weighted Average 2020 Target	Regional Alliance 2015 Interim Target
253	203	228

NOTES; Autofill from two previous tables

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

* All participating agencies must submit individual SB X7-7 Tables, as applicable, showing the individual agency's calculations. These tables are: SB X7-7 Tables 0 through 6, Table 7, any required supporting tables (as stated in SB X7-7 Table 7), and SB X7-7 Table 9, as applicable. These individual agency tables will be submitted with the individual or Regional Urban Water Management Plan.

NOTES: MWD = Municipal Water District

SB X7-7 RA1 - Compliance Verification

2015 GPCD (Actual)	2015 Interim Target GPCD	Economic Adjustment ¹ <i>Enter "0" if no adjustment</i>	Adjusted 2015 GPCD <i>(if economic adjustment used)</i>	Did Alliance Achieve Targeted Reduction for 2015?
170	228	0	170	YES

¹ Adjustments for economic growth can be applied to either the individual supplier's data or to the aggregate regional alliance data (but not both), depending upon availability of suitable data and methods.

NOTES: Autofill except for C3

Appendix H – Water Supply Shortage Response Program

ARTICLE 29. – WATER SUPPLY SHORTAGE RESPONSE PROGRAM

Article 10, section 2 of the California Constitution declares that waters of the State are to be put to beneficial use; that waste, unreasonable use, or unreasonable method of use of water be prevented; and that water be conserved for the public welfare.

Conservation of current water supplies and minimization of the effects of water supply shortages that are the result of drought are essential to the public health, safety and welfare.

Regulation of the time of certain water use, manner of certain water use, design of rates, method of application of water for certain uses, installation, and use of water-saving devices provides an effective and immediately available means of conserving water.

California Water Code sections 375 et seq. authorize water suppliers to adopt and enforce a comprehensive water conservation program.

Adoption and enforcement of a comprehensive water conservation program will allow the SAN DIEGUITO WATER DISTRICT to delay or avoid implementing measures such as water rationing or more restrictive water use regulations pursuant to a declared water shortage emergency as authorized by California Water Code sections 350 et seq.

San Diego County is a semi-arid region, and local water resources are scarce. The region is dependent upon imported water supplies provided by the San Diego County Water Authority, which obtains a substantial portion of its supplies from the Metropolitan Water District of Southern California. Because the region is dependent upon imported water supplies, weather and other conditions in other portions of this State and of the Southwestern United States affect the availability of water for use in San Diego County.

San Diego County Water Authority has adopted an Urban Water Management Plan that includes water conservation as a necessary and effective component of the Water Authority's programs to provide a reliable supply of water to meet the needs of the Water Authority's 24 member public agencies, including the SAN DIEGUITO WATER DISTRICT. The Water Authority's Urban Water Management Plan also includes a contingency analysis of actions to be taken in response to water supply shortages. This ordinance is consistent with the Water Authority's Urban Water Management Plan.

As anticipated by its Urban Water Management Plan, the San Diego County Water Authority, in cooperation and consultation with its member public agencies, has adopted a Water Shortage and Drought Response Plan, which establishes a progressive program for responding to water supply limitations resulting from drought conditions. This ordinance is intended to be consistent with and to implement the Water Authority's Water Shortage and Drought Response Plan.

The Water Authority's Water Shortage and Drought Response Plan contains three stages containing regional actions to be taken to lessen or avoid supply shortages. This ordinance contains water supply shortage response levels that correspond with the Water Shortage and Drought Response Plan stages.

The SAN DIEGUITO WATER DISTRICT, due to the geographic and climatic conditions within its territory and its dependence upon water imported and provided by the San Diego County Water Authority, may experience shortages due to drought conditions, regulatory restrictions enacted upon imported supplies and other factors. The SAN DIEGUITO WATER DISTRICT has adopted an Urban Water Management Plan that includes water conservation as a necessary and effective component of its programs to provide a reliable supply of water to meet the needs of the public within its service territory. The SAN DIEGUITO WATER DISTRICT Urban Water Management Plan also includes a contingency analysis of actions to be taken in response to water supply shortages. This ordinance is consistent with the Urban Water Management Plan adopted by the SAN DIEGUITO WATER DISTRICT.

The water conservation measures and progressive restrictions on water use and method of use identified by this ordinance provide certainty to water users and enable SAN DIEGUITO WATER DISTRICT to control water use, provide water supplies, and plan and implement water management measures in a fair and orderly manner for the benefit of the public.

Sec 29.1. Declaration Of Necessity And Intent

(a) This ordinance establishes water management requirements necessary to conserve water, enable effective water supply planning, assure reasonable and beneficial use of water, prevent waste of water, prevent unreasonable use of water, prevent unreasonable method of use of water within the SAN DIEGUITO WATER DISTRICT in order to assure 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 not only in times of drought, but at all times.

(b) This ordinance establishes regulations to be implemented during times of declared water shortages, or declared water shortage emergencies. It establishes four levels of water supply shortage response actions to be implemented in times of shortage, with increasing restrictions on water use in response to worsening drought conditions and decreasing available supplies.

(c) Level 1 condition water supply shortage response measures are voluntary and will be reinforced through local and regional public education and awareness measures that may be funded in part by SAN DIEGUITO WATER DISTRICT.

(d) During a Water Supply Shortage Response Level 2 condition or higher, the water conservation measures and water-use restrictions established by this ordinance are mandatory and become increasingly restrictive in order to attain escalating conservation goals. Violations are subject to criminal, civil, and administrative penalties and remedies specified in this ordinance and as provided in SAN DIEGUITO WATER DISTRICT Administrative or Municipal Code.

Sec 29.2. Definitions

(a) The following words and phrases whenever used in this chapter shall have the meaning defined in this section:

1. “Grower” refers to those engaged in the growing or raising, in conformity with recognized practices of husbandry, for the purpose of commerce, trade, or industry, or for use by public educational or correctional institutions, of agricultural, horticultural or

floricultural products, and produced: (1) for human consumption or for the market, or (2) for the feeding of fowl or livestock produced for human consumption or for the market, or (3) for the feeding of fowl or livestock for the purpose of obtaining their products for human consumption or for the market. “Grower” does not refer to customers who purchase water subject to the Metropolitan Interim Agricultural Water Program or the Water Authority Special Agricultural Rate programs.

2. “Water Authority” means the San Diego County Water Authority.

3. “DMP” means the Water Authority’s Drought Management Plan in existence on the effective date of this ordinance and as readopted or amended from time to time, or an equivalent plan of the Water Authority to manage or allocate supplies during shortages.

4. “Metropolitan” means the Metropolitan Water District of Southern California.

5. “Person” means any natural person, corporation, public or private entity, public or private association, public or private agency, government agency or institution, school district, college, university, or any other user of water provided by the SAN DIEGUITO WATER DISTRICT .

Sec 29.3. Application

(a) The provisions of this ordinance apply to any person in the use of any water provided by the SAN DIEGUITO WATER 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 stormwater ordinances and stormwater management plans.

(c) Nothing in this ordinance is intended to affect or limit the ability of the SAN DIEGUITO WATER DISTRICT to declare and respond to an emergency, including an emergency that affects the ability of the SAN DIEGUITO WATER DISTRICT to supply water.

(d) The provisions of this ordinance do not apply to use of 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 Interim Agricultural Water Program or the 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 SAN DIEGUITO WATER DISTRICT is subject to this ordinance in the use of the other water.

Sec 29.4. Water Waste Prohibition

(a) Prohibitions – In accordance with California Urban Water Conservation Council Best Management Practice 13, the SAN DIEGUITO WATER DISTRICT prohibits gutter flooding, single

pass cooling systems in new connections, non-recirculating systems in all new conveyer car wash and commercial laundry systems, and non-recycling decorative water fountains.

(b) Water Softeners - The SAN DIEGUITO WATER DISTRICT shall support efforts to develop state law regarding exchange-type water softeners that would: (1) allow the sale of only more efficient, demand-initiated regenerating (DIR) models; (2) develop minimum appliance efficiency standards that (a) increase the regeneration efficiency standard to at least 3,350 grains of hardness removed per pound of common salt used; and (b) implement an identified maximum number of gallons discharged per gallon of soft water produced; (3) allow local agencies, including municipalities and special districts, to set more stringent standards and/or to ban on-site regeneration of water softeners if it is demonstrated and found by the agency governing board that there is an adverse effect on the re-claimed water or groundwater supply.

(c) Water Audits - The SAN DIEGUITO WATER DISTRICT shall include water softener checks in home water audit programs and include information about DIR and exchange-type water softeners in their educational efforts to encourage replacement of less efficient timer models.

(d) Unreasonable Use – At no time shall water be wasted or used unreasonably. Unreasonable uses of water shall include, but are not limited to the following practices:

1. Failure to repair a water leak after notification from the District and opportunity to do so.
2. Failure to stop water waste resulting from conditions such as inefficient landscape irrigation, excessive runoff, low head drainage, overspray of water flows onto non-targeted areas, overspray of water flows onto adjacent property, overspray and water flow onto non-irrigated areas, overspray and water flow onto roadways and adjacent structures.

Sec 29.5. Water Supply Shortage Response Level 1 – Water Supply Shortage Watch Condition

(a) A Water Supply Shortage Response Level 1 condition is also referred to as a “Water Supply Shortage Watch” condition. A Level 1 condition shall apply under one of the following conditions:

1. When the Water Authority notifies its member agencies that due to drought or other supply reductions, there is a reasonable probability there will be supply shortages and that a consumer demand reduction of up to 10 percent is required in order to ensure that sufficient supplies will be available to meet anticipated demands.
2. When the San Dieguito Water District Board of Directors deems such action necessary due to drought and/or limited water supply conditions.

In either case, the General Manager shall declare the existence of a Water Supply Shortage Response Level 1 and take action to implement the Level 1 conservation practices identified in this ordinance.

(b) During a Level 1 Water Supply Shortage Watch condition, SAN DIEGUITO WATER DISTRICT will increase its public education and outreach efforts to emphasize increased public awareness of the need to implement the following water conservation practices. These water

conservation practices become mandatory if SAN DIEGUITO WATER DISTRICT declares a Level 2 Water Supply Shortage Alert condition:

1. Stop washing down paved surfaces, including but not limited to sidewalks, driveways, parking lots, tennis courts, or patios, except when it is necessary to alleviate safety or sanitation hazards.
 2. Stop water waste resulting from inefficient landscape irrigation, such as runoff, low head drainage, or overspray, etc. Similarly, stop water flows onto non-targeted areas, such as adjacent property, non-irrigated areas, hardscapes, roadways, or structures.
 3. Irrigate residential and commercial landscape before 8 a.m. and after 6 p.m. only.
 4. Watering is permitted at any time with a hand-held hose equipped with a positive shut-off nozzle, a bucket, or when a drip/micro-irrigation system/equipment is used to water landscaped areas, including trees and shrubs located on residential and commercial properties that are not irrigated by a landscape irrigation system.
 5. Irrigate nursery and commercial growers' products before 10 a.m. and after 6 p.m. only. Watering is permitted at any time with a hand-held hose equipped with a positive shut-off nozzle, a bucket, or when a drip/micro-irrigation system/equipment is used. Irrigation of nursery propagation beds is permitted at any time. Watering of livestock is permitted at any time.
 6. Use re-circulated water to operate ornamental fountains.
 7. Wash vehicles using a bucket and a hand-held hose with positive shut-off nozzle, mobile high pressure/low volume wash system, or at a commercial site that re-circulates (reclaims) water on-site. Avoid washing during hot conditions when additional water is required due to evaporation.
 8. Serve and refill water in restaurants and other food service 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. Use recycled or non-potable water for construction purposes when available.
 11. Do not irrigate turf or ornamental landscape during and 48 hours following measurable precipitation.
- (b) During a Water Supply Shortage Response Level 2 condition or higher, all persons shall be required to implement the conservation practices established in a Water Supply Shortage Response Level 1 condition.

Sec 29.6. Water Supply Shortage Response Level 2 – Water Supply Shortage Alert Condition

(a) A Water Supply Shortage Response Level 2 condition is also referred to as a “Water Supply Shortage Alert” condition. A Level 2 shall apply under one of the following conditions:

1. When the Water Authority notifies its member agencies that due to drought or other supply reductions, there is a reasonable probability there will be supply shortages and that a consumer demand reduction of up to 20 percent is required in order to ensure that sufficient supplies will be available to meet anticipated demands.

2. When the San Dieguito Water District Board of Directors deems such action necessary due to drought and/or limited water supply conditions.

In either case, the SAN DIEGUITO WATER DISTRICT Board of Directors shall declare the existence of a Water Supply Shortage Response Level 2 condition and implement the mandatory Level 2 conservation measures identified in this ordinance.

(b) All persons using SAN DIEGUITO WATER DISTRICT water shall comply with Level 1 Water Supply Shortage Watch water conservation practices during a Level 2 Water Supply Shortage Alert, and shall also comply with the following additional conservation measures:

1. Limit residential and commercial landscape irrigation to assigned days per week on a schedule established by the General Manager and posted by the SAN DIEGUITO WATER DISTRICT. This section shall not apply to commercial growers or nurseries.

2. Limit lawn watering and landscape irrigation using sprinklers to time limits per watering station per assigned day as established by the General Manager and posted by the SAN DIEGUITO WATER DISTRICT. This provision does not apply to landscape irrigation systems using water efficient devices, including but not limited to: weather based controllers, drip/micro-irrigation systems and stream rotor sprinklers.

3. Water landscaped areas, including trees and shrubs located on residential and commercial properties, and not irrigated by a landscape irrigation system governed by section 29.6 (b) (1), on the same schedule set forth in section 29.6 (b) (1) by using a bucket, hand-held hose with positive shut-off nozzle, or low-volume non-spray irrigation.

4. Repair all leaks within seventy-two (72) hours of notification by the SAN DIEGUITO WATER DISTRICT unless other arrangements are made with the General Manager.

5. Stop operating ornamental fountains or similar decorative water features unless re-circulated or recycled water is used.

(c) Upon declaration by the Board of Directors of a Water Supply Shortage Response Level 2 condition, SAN DIEGUITO WATER DISTRICT may suspend consideration of annexations to its service area.

(d) Upon the declaration of a Water Supply Shortage Response Level 2 condition, the SAN DIEGUITO WATER DISTRICT Board of Directors may also declare a water shortage emergency pursuant to California Water Code Section 350 et seq. Once findings supporting a water shortage emergency have been adopted, no new potable water service shall be provided, no new temporary meters or permanent meters shall be provided, 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 project; 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 SAN DIEGUITO WATER DISTRICT.

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.

(e) SAN DIEGUITO WATER DISTRICT may establish a water allocation for property served by the SAN DIEGUITO WATER DISTRICT using a method that does not penalize persons for the previous implementation of conservation methods or the installation of water-saving devices. If the SAN DIEGUITO WATER 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 SAN DIEGUITO WATER DISTRICT customarily mails the billing statement for fees or charges for on-going water service. The District is not required to comply with Proposition 218 to impose fines on persons using water in violation of District restrictions on water use or in passing through penalties levied upon the District by Metropolitan as a result of excessive use by some District customers. Following the effective date of the water allocation as established by the SAN DIEGUITO WATER DISTRICT, any person that uses water in excess of the allocation shall be subject to a penalty in the amount of twice the Metropolitan Tier 2 rate if under 115% of the allocation and four times the Metropolitan Tier 2 rate if over 115% 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 of this ordinance.

Sec 29.7. Water Supply Shortage Response Level 3 – Water Supply Shortage Critical Condition

(a) A Water Supply Shortage Response Level 3 condition is also referred to as a “Water Supply Shortage Critical” condition. A Level 3 shall apply under one of the following conditions:

1. When the Water Authority notifies its member agencies that due to drought or other supply reductions, there is a reasonable probability there will be supply shortages and that a consumer demand reduction of up to 40 percent is required in order to ensure that sufficient supplies will be available to meet anticipated demands.
2. When the San Dieguito Water District Board of Directors deems such action necessary due to drought and/or limited water supply conditions.

In either case, the SAN DIEGUITO WATER DISTRICT Board of Directors shall declare the existence of a Water Supply Shortage Response Level 3 condition and implement the Level 3 conservation measures identified in this ordinance.

(b) All persons using SAN DIEGUITO WATER DISTRICT water shall comply with Level 1 Water Supply Shortage Watch and Level 2 Water Supply Shortage Alert water conservation practices during a Level 3 Water Supply Shortage Critical condition and shall also comply with the following additional mandatory conservation measures:

1. Limit landscaped and commercial landscape irrigation to assigned days per week on a schedule established by the General Manager and posted by the SAN DIEGUITO WATER DISTRICT. This section shall not apply to commercial growers or nurseries.

2. Water landscaped areas, including trees and shrubs located on residential and commercial properties, and not irrigated by a landscape irrigation system governed by section 29.7 (b) (1), on the same schedule set forth in section 29.7 (b) (1) by using a bucket, hand-held hose with a positive shut-off nozzle, or low-volume non-spray irrigation.

3. Stop filling or re-filling ornamental lakes or ponds, except to the extent needed to sustain aquatic life, provided that such animals are of significant value and have been actively managed within the water feature prior to declaration of a water supply shortage response level under this ordinance.

4. Stop washing vehicles except at commercial carwashes that re-circulate water, or by high pressure/low volume wash systems.

5. Repair all leaks within forty-eight (48) hours of notification by the SAN DIEGUITO WATER DISTRICT unless other arrangements are made with the General Manager.

(c) Upon declaration by the Board of Directors of a Water Supply Shortage Response Level 3 condition, SAN DIEGUITO WATER DISTRICT may suspend consideration of annexations to its service area.

(d) Upon the declaration of a Water Supply Shortage Response Level 3 condition, the SAN DIEGUITO WATER DISTRICT Board of Directors may also declare a water shortage emergency pursuant to California Water Code Section 350 et seq. Once findings supporting a water shortage emergency have been adopted, no new potable water service shall be provided, no new temporary meters or permanent meters shall be provided, 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 project; 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 SAN DIEGUITO WATER DISTRICT.

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.

(e) SAN DIEGUITO WATER DISTRICT may establish a water allocation for property served by the SAN DIEGUITO WATER DISTRICT using a method that does not penalize persons for the previous implementation of conservation methods or the installation of water-saving devices. If the SAN DIEGUITO WATER DISTRICT establishes a 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 SAN DIEGUITO WATER DISTRICT customarily mails the billing statement for fees or charges for on-going water service. The District is not required to comply with Proposition 218 to impose fines on persons using water in violation of District restrictions on water use or in passing through penalties levied upon the District by Metropolitan as a result of excessive use by some District customers. Following the effective date of the water allocation as established by the SAN DIEGUITO WATER DISTRICT, any person that uses water in excess of the allocation shall be subject to a penalty in the amount of twice the Metropolitan Tier 2 rate if under 115% of the allocation and four times the Metropolitan Tier 2 rate if over 115% 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 of this ordinance.

Sec 29.8. Water Supply Shortage Response Level 4 – Water Supply Shortage Emergency Condition

(a) A Water Supply Shortage Response Level 4 condition is also referred to as a “Water Supply Shortage Emergency” condition. A Level 4 shall apply under one of the following conditions:

1. When the Water Authority Board of Directors declares a water shortage emergency pursuant to California Water Code section 350 and notifies its member agencies that Level 4 requires a demand reduction of more than 40 percent in order for the SAN DIEGUITO WATER DISTRICT to have maximum supplies available to meet anticipated demands.
2. When the SAN DIEGUITO WATER DISTRICT Board of Directors deems such action necessary due to drought and/or limited water supply conditions.

The SAN DIEGUITO WATER DISTRICT shall declare a Water Supply Shortage Emergency in the manner and on the grounds provided in California Water Code section 350.

(b) All persons using SAN DIEGUITO WATER DISTRICT water shall comply with conservation measures required during Level 1 Water Supply Shortage Watch, Level 2 Water Supply Shortage Alert, and Level 3 Water Supply Shortage Critical conditions and shall also comply with the following additional mandatory conservation measures:

1. Stop all landscape irrigation, except crops and landscape products of commercial growers and nurseries. This restriction shall not apply to the following categories of use unless the SAN DIEGUITO WATER DISTRICT has determined that recycled water is available and may be lawfully applied to the use.

A. Maintenance of trees and shrubs that are watered on the same schedule set forth in section 29.7 (b) (1) by using a bucket, hand-held hose with a positive shut-off nozzle, or low-volume non-spray irrigation;

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

C. Maintenance of existing landscaping for erosion control;

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

E. Maintenance of landscaping within active public parks and playing fields, day care centers, school grounds, cemeteries, and golf course greens, provided that such irrigation does not exceed two (2) days per week according to the schedule established under section 29.7 (b) (1);

F. Watering of livestock; and

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

2. Repair all water leaks within twenty-four (24) hours of notification by the SAN DIEGUITO WATER DISTRICT unless other arrangements are made with the General Manager.

(c) Upon declaration by the Board of Directors of a Water Supply Shortage Response Level 4 condition, SAN DIEGUITO WATER DISTRICT will suspend consideration of annexations to its service area.

(d) Upon the declaration of a Water Supply Shortage Response Level 4 condition, no new potable water service shall be provided, no new temporary meters or permanent meters shall be provided, 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 project; 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 SAN DIEGUITO WATER DISTRICT.

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.

(e) SAN DIEGUITO WATER DISTRICT may establish a water allocation for property served by the SAN DIEGUITO WATER DISTRICT using a method that does not penalize persons for the previous implementation of conservation methods or the installation of water-saving devices. If the SAN DIEGUITO WATER DISTRICT establishes a 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 SAN DIEGUITO WATER DISTRICT customarily mails the billing statement for fees or charges for on-going water service. The District is not required to comply with Proposition 218 to impose fines on persons using water in violation of District restrictions on water use or in passing through penalties levied upon the District by Metropolitan as a result of excessive use by some District customers. Following the effective date of the water allocation as established by the SAN DIEGUITO WATER DISTRICT, any person that uses water in excess of the allocation shall be subject to a penalty in the amount of twice the Metropolitan Tier 2 rate if under 115% of the allocation and four times the Metropolitan Tier 2 rate if over 115% 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 of this ordinance.

Sec 29.9. Correlation Between Water Shortage and Drought Response Plan And Water Supply Shortage Response Levels

(a) The water supply shortage response levels identified in this ordinance correspond with the Water Authority WSDRP as identified in the following table:

Water Supply Shortage Response Levels	Use Restrictions	Conservation Target	WSDRP Stage
1 – Water Supply Shortage Watch	Voluntary	Up to 10%	None*, 1 or 2
2 – Water Supply Shortage Alert	Mandatory	Up to 20%	2 or 3
3 – Water Supply Shortage Critical	Mandatory	Up to 40%	3
4 – Water Supply Shortage Emergency	Mandatory	Above 40%	3

*The San Dieguito Water District Board of Directors may declare a Water Supply Shortage Response Level 1 without the Water Authority enacting their WSDRP.

Sec 29.10. Procedures For Determination And Notification Of Water Supply Shortage Response Level

(a) The existence of a Water Supply Shortage Response Level 1 condition may be declared by the General Manager upon a written determination of the existence of the facts and circumstances supporting the determination. A copy of the written determination shall be filed with the Clerk or Secretary of the SAN DIEGUITO WATER DISTRICT and provided to the SAN DIEGUITO WATER DISTRICT Board of Directors. The General Manager may publish a notice of the determination of existence of Water Supply Shortage Response Level 1 condition in one or more newspapers, including a newspaper of general circulation within the SAN DIEGUITO WATER DISTRICT. The SAN DIEGUITO WATER DISTRICT may also post notice of the condition on their website.

(b) The existence of Water Supply Shortage Response Level 2 or Level 3 conditions may be declared by resolution of the SAN DIEGUITO WATER DISTRICT Board of Directors adopted at a regular or special public meeting held in accordance with State law. The mandatory conservation measures applicable to Water Supply Shortage Response Level 2 or Level 3 conditions shall take

effect on the tenth (10) day after the date the response level is declared. Within five (5) days following the declaration of the response level, the SAN DIEGUITO WATER DISTRICT shall publish a copy of the resolution in a newspaper used for publication of official notices.

(c) The existence of a Water Supply Shortage Response Level 4 condition may be declared in accordance with the procedures specified in California Water Code sections 351 and 352. The mandatory conservation measures applicable to Water Supply Shortage Response Level 4 conditions shall take effect on the tenth (10) day after the date the response level is declared. Within five (5) days following the declaration of the response level, the SAN DIEGUITO WATER DISTRICT shall publish a copy of the resolution in a newspaper used for publication of official notices. If the SAN DIEGUITO WATER DISTRICT establishes a 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 SAN DIEGUITO WATER DISTRICT customarily mails the billing statement for fees or charges for on-going water service. Water allocation shall be effective on the fifth (5) day following the date of mailing or at such later date as specified in the notice.

(d) The SAN DIEGUITO WATER DISTRICT Board of Directors may declare an end to a Water Supply Shortage Response Level by the adoption of a resolution at any regular or special meeting held in accordance with State law.

Sec 29.11. Hardship Variance

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

(b) The variance may be granted or conditionally granted, only upon a written finding of the existence of facts demonstrating an undue hardship to a person using agency water or to property upon which agency water is used, that is disproportionate to the impacts to SAN DIEGUITO WATER DISTRICT water users generally or to similar property or classes of water use due to specific and unique circumstances of the user or the user's property.

1. Application. Application for a variance shall be a form prescribed by SAN DIEGUITO WATER DISTRICT and shall be accompanied by a non-refundable processing fee in an amount set by resolution of the SAN DIEGUITO WATER DISTRICT Board of Directors.

2. Supporting Documentation. The application shall be accompanied by photographs, maps, drawings, and other information, including a written statement of the applicant.

3. Required Findings for Variance. An application for a variance shall be denied unless the approving authority finds, based on the information provided in the application, supporting documents, or such additional information as may be requested, and on water use information for the property as shown by the records of the SAN DIEGUITO WATER DISTRICT, all of the following:

A. That the variance does not constitute a grant of special privilege inconsistent with the limitations upon other SAN DIEGUITO WATER DISTRICT customers.

B. 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.

C. That the authorizing of such variance will not be of substantial detriment to adjacent properties, and will not materially affect the ability of the SAN DIEGUITO WATER DISTRICT to effectuate the purpose of this chapter and will not be detrimental to the public interest.

D. That the condition or situation of the subject property or the intended use of the property for which the variance is sought is not common, recurrent or general in nature.

4. Approval Authority. The General Manager shall exercise initial approval authority and act upon any completed variance application with supporting evidence no later than 10 days after submittal and may approve, conditionally approve, or deny the variance. Any variance may be denied, conditionally approved or approved as determined by the General Manager in his or her sole discretion. The applicant requesting the variance shall be promptly notified in writing of any action taken. Unless specified otherwise at the time a variance is approved, the variance applies to the subject property during the term of the mandatory water supply shortage response.

5. Appeals to SAN DIEGUITO WATER DISTRICT Board of Directors. An applicant may appeal a decision or condition of the General Manager on a variance application to the SAN DIEGUITO WATER DISTRICT Board of Directors within 10 days of the decision upon written request for a hearing. The request shall state all grounds for the appeal and shall include all evidence or documents provided to the General Manager to support the variance request. The failure to appeal the decision, in writing, to the Board of Directors within ten (10) consecutive days of the decision by the General Manager shall bar and waive all further appeals to the Board and result in the decision of the General Manager becoming final and non-appealable. At a public meeting, the SAN DIEGUITO WATER DISTRICT Board of Directors shall act as the approval authority and review the appeal de novo by following the regular variance procedure. The Board of Directors of San Dieguito retains broad discretion in denying, approving or conditionally approving any variance request. Nothing contained in this ordinance shall be construed as requiring the Board of Directors to grant any variance request. The Board of Directors of San Dieguito shall have the right to deny any variance request in the sole discretion of the Board of Directors of San Dieguito. The decision of the SAN DIEGUITO WATER DISTRICT Board of Directors is final. The record of proceedings shall consist solely of those documents and records submitted by the applicant to the General Manager to support the variance request; any studies, reports, evaluations, or determinations made by the General Manager; and any final determination by the Board of Directors of San Dieguito. No new evidence or information shall be submitted by any variance applicant to the Board of Directors of San Dieguito not

previously presented to the General Manager prior to the General Manager's decision on the variance request.

Sec 29.12. Violations And Penalties

(a) 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.

(b) Each day that a violation of this ordinance occurs is a separate offense.

(c) Administrative fines may be levied for each violation of a provision of this ordinance as follows:

1. A warning will be issued at the sole discretion of the General Manager for the first violation within the current twelve-month period from the most recent violation.

2. The customer will be fined one hundred dollars for a second violation within the current twelve-month period from the most recent violation.

3. The customer will be fined two hundred dollars for a third violation within the current twelve-month period from the most recent violation.

4. The customer will be fined five hundred dollars for each additional violation of this ordinance within the current twelve-month period from the most recent violation.

(d) Any violation of a provision of this ordinance is subject to enforcement through installation of a flow-restricting device in the meter. Reinstatement of normal flow will be considered by the General Manager upon review of evidence or documents which outline steps taken by customer to correct the violation. The General Manager may approve, conditionally approve or deny the removal of the flow-restricting device.

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

(f) Willful violations of the mandatory conservation measures and water use restrictions as set forth in Section 29.7 and applicable during a Level 4 Water Supply Shortage Emergency condition may be enforced by discontinuing service to the property at which the violation occurs as provided by Water Code section 356.

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

Sec 29.13. Effective Date

This ordinance is effective immediately upon adoption as provided in Water Code Section 376. This ordinance shall be published one time in a newspaper of general circulation within the SAN DIEGUITO WATER DISTRICT within ten (10) days of adoption as provided in Water code Section 376.

Appendix I – Best Management Practices Report



CUWCC BMP Retail Coverage Report 2013

Foundational Best Management Practices for Urban Water Efficiency

BMP 1.1 Operation Practices

ON TRACK

197 San Dieguito Water District

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

Name:

Title:

Email:

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.	SanDieguitoWD_waste_prohibition_bmp.pdf		
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

Exemption

Comments:



CUWCC BMP Retail Coverage Report 2013
Foundational Best Management 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

ON TRACK

197 San Dieguito Water District

- Completed Standard Water Audit Using AWWA Software? Yes
- AWWA File provided to CUWCC? Yes
- FY13 SDWD AWWA_Water_Audit-197.xls
- AWWA Water Audit Validity Score?
- Complete Training in AWWA Audit Method Yes
- Complete Training in Component Analysis Process? Yes
- Component Analysis? Yes
- Repaired all leaks and breaks to the extent cost effective? Yes
- Locate and Repair 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)
33				True		

At Least As effective As

Exemption

Comments:



CUWCC BMP Coverage Report 2013

Foundational Best Management Practices For Urban Water Efficiency

BMP 1.3 Metering With Commodity

ON TRACK

197 San Dieguito Water District

Numbered Unmetered Accounts	No
Metered Accounts billed by volume of use	Yes
Number of CII Accounts with Mixed Use Meters	152
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: 7/30/2012	
Uploaded file name:	
Completed a written plan, policy or program to test, repair and replace meters	Yes
At Least As effective As	<input type="text" value="No"/>
Exemption	<input type="text" value="No"/>
Comments:	



CUWCC BMP Coverage Report 2013

Foundational Best Management Practices For Urban Water Efficiency

BMP 1.4 Retail Conservation Pricing

On Track

197 San Dieguito Water District

Implementation (Water Rate Structure)

Customer Class	Water Rate Type	Conserving Rate?	(V) Total Revenue Comodity Charges	(M) Total Revenue Fixed Carges
Agricultural	Uniform	Yes	219478.3	70674.45
Commercial	Uniform	Yes	716970.89	201912.54
Other	Uniform	Yes	42432.48	7378.81
Institutional	Uniform	Yes	143034.24	37252.4
Dedicated Irrigation	Uniform	Yes	657818.94	127198.99
Multi-Family	Increasing Block	Yes	2164999.94	633725.64
Other	Increasing Block	Yes	3098.42	1783.79
Single-Family	Increasing Block	Yes	5134839.18	1943176.14
Other	Increasing Block	Yes	3227.5	2296.71
Fire Lines	Uniform	Yes		113122.43
Other	Uniform	Yes	385.89	61702.22
Other	Uniform	Yes	51261.44	6294.5
			9137547.22	3206518.62

Calculate: $V / (V + M)$ 74 %

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

At Least As effective As

Exemption

Comments:



CUWCC BMP Coverage Report 2013

Foundational Best Management Practices For Urban Water Efficiency

BMP 2.1 Public Outreach

ON TRACK

197 San Dieguito Water District

Retail

Does your agency perform Public Outreach programs? **Yes**

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

Metropolitan Water District of SC, San Diego County Water Authority

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

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

Public Outreach Program List	Number
Newsletter articles on conservation	2
Website	30
Flyers and/or brochures (total copies), bill stuffers, messages printed on bill, information packets	2500
General water conservation information	10
Email Messages	4
Total	2546

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

Number Media Contacts	Number
News releases	2
Articles or stories resulting from outreach	1
Total	3

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

Public Information Program Annual Budget

Annual Budget Category	Annual Budget Amount
Publications	37500
Conservation - adult education and outreach	6267
Total Amount:	43767

Public Outreach Additional Programs

Seaside Cardiff Daycamp - activity and information
Encinitas Garden Festival: sponsor, table/staff
Encinitas Environment Day - table/staff
Public Works Week - table/staff (see also school, both public & schools)
YMCA Camp



CUWCC BMP Coverage Report 2013

Foundational Best Management Practices For Urban Water Efficiency

BMP 2.1 Public Outreach

ON TRACK

Public Outreach Additional Programs
Senior Lunch Program - Toilet dye check for leaks promotion
Arbor Day - Public Works
Cardiff Green Expo
Church Fundraiser - supplied materials
Cultural Tourism Committee Meeting, Chambers of Commerce
School District Liaison Committee Meeting
Home Depot Plant Fair, 2 events

Description of all other Public Outreach programs

SFID, OMWD, NCWA, City of Encinitas Parks & Rec, Solana Center, Home Depot, Wyland Foundation, EPA

Comments:

districtwide notices include ccr, bill stuffers

At Least As effective As

Exemption



CUWCC BMP Coverage Report 2013

Foundational Best Management Practices For Urban Water Efficiency

BMP 2.2 School Education Programs

ON TRACK

197 San Dieguito Water District

Retail

Does your agency implement School Education programs? Yes

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

Metropolitan Water District of SC, San Diego County Water Authority

Materials meet state education framework requirements? Yes

Interdisciplinary Instruction with Splash Lab. Classroom visits include project WET activity: 3rd & 4th grade history dvd (SDCWA), Water Quality test kit offered gr. 6-12. Water cycle posters given at classroom visits, Water supply maps (WEF).

Materials distributed to K-6? Yes

3 & 4th grade history dvd, Water Cycle Posters, Gr3 Our World of Water Activity Book. How to Conserve Water poster (classroom), conservation and ecology music cds, DWR hands on activities, MWD materials: Admiral Splash, Water Times, Waterways.

Materials distributed to 7-12 students? No (Info Only)

Offered water quality test kits to teachers gr 6-12

Annual budget for school education program: 3000.00

Description of all other water supplier education programs

help promote SDCWA theater programs, promote free materials from MWD & DWR, supply maps and support resources upon request.

Comments:

events: PW Week, Seaside camps. cooperative efforts: fund Splash lab & Green Machine total 2 visits. Other materials: Capri, St. John's, Ecke, Ada Harris, City fall break camp. LCCHS event no longer held.

At Least As effective As No

Exemption No 0



CUWCC BMP Retail Coverage Report 2014

Foundational Best Management Practices for Urban Water Efficiency

BMP 1.1 Operation Practices

ON TRACK

197 San Dieguito Water District

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

Name:

Title:

Email:

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.	SanDieguitoWD_waste_prohibition_bmp.pdf		
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

Exemption

Comments:



CUWCC BMP Retail Coverage Report 2014
Foundational Best Management 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**

ON TRACK

197 San Dieguito Water District

- Completed Standard Water Audit Using AWWA Software? Yes
- AWWA File provided to CUWCC? Yes
- FY14 SDWD AWWA_Water_Audit-197.xls
- AWWA Water Audit Validity Score?
- Complete Training in AWWA Audit Method Yes
- Complete Training in Component Analysis Process? Yes
- Component Analysis? Yes
- Repaired all leaks and breaks to the extent cost effective? Yes
- Locate and Repair 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)
27				True		

At Least As effective As

Exemption

Comments:



CUWCC BMP Coverage Report 2014

Foundational Best Management Practices For Urban Water Efficiency

BMP 1.3 Metering With Commodity

ON TRACK

197 San Dieguito Water District

Numbered Unmetered Accounts	No
Metered Accounts billed by volume of use	Yes
Number of CII Accounts with Mixed Use Meters	152
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: 7/30/2012	
Uploaded file name:	
Completed a written plan, policy or program to test, repair and replace meters	Yes
At Least As effective As	<input type="text" value="No"/>
Exemption	<input type="text" value="No"/>
Comments:	



CUWCC BMP Coverage Report 2014

Foundational Best Management Practices For Urban Water Efficiency

BMP 1.4 Retail Conservation Pricing

On Track

197 San Dieguito Water District

Implementation (Water Rate Structure)

Customer Class	Water Rate Type	Conserving Rate?	(V) Total Revenue Comodity Charges	(M) Total Revenue Fixed Carges
Agricultural	Uniform	Yes	242894.74	70756.78
Commercial	Uniform	Yes	788904.39	205079.35
Other	Uniform	Yes	48505.99	8055.59
Institutional	Uniform	Yes	158525.09	39338.92
Dedicated Irrigation	Uniform	Yes	750444.29	128928.17
Multi-Family	Increasing Block	Yes	2401886.94	640380.91
Other	Increasing Block	Yes	4984.4	1791.24
Single-Family	Increasing Block	Yes	5707175.03	1949419.59
Other	Increasing Block	Yes	3414.2	2298.21
Fire Lines	Uniform	Yes		117373.69
Other	Uniform	Yes	540.95	64370.13
Other	Uniform	Yes	101218.99	7974.1
			10208495.01	3235766.68

Calculate: $V / (V + M)$ 76 %

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

At Least As effective As

Exemption

Comments:



CUWCC BMP Coverage Report 2014

Foundational Best Management Practices For Urban Water Efficiency

BMP 2.1 Public Outreach

ON TRACK

197 San Dieguito Water District

Retail

Does your agency perform Public Outreach programs? **Yes**

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

Metropolitan Water District of SC, San Diego County Water Authority

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

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

Public Outreach Program List	Number
Newsletter articles on conservation	2
Website	40
Flyers and/or brochures (total copies), bill stuffers, messages printed on bill, information packets	2700
General water conservation information	10
Email Messages	18
Total	2770

Did at least one contact take place during each quarter of the reporting year? **No**

Number Media Contacts	Number
News releases	2
Articles or stories resulting from outreach	2
Total	4

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

Public Information Program Annual Budget

Annual Budget Category	Annual Budget Amount
Publications	22500
Conservation - adult education and outreach	11035
Total Amount:	33535

Public Outreach Additional Programs

Seaside Cardiff Daycamp - activity and information

Encinitas Garden Festival: sponsor, table/staff

Encinitas Environment Day - table/staff

Public Works Week - table/staff (see also school, both public & schools)

YMCA Camp



CUWCC BMP Coverage Report 2014

Foundational Best Management Practices For Urban Water Efficiency

BMP 2.1 Public Outreach

ON TRACK

Public Outreach Additional Programs
Solar Turbine landscape Makeover Tour for HOA boards
Arbor Day - Public Works
Cultural Tourism Committee Meeting, Chambers of Commerce
School District Liaison Committee Meeting
Home Depot Plant Fair, 2 events
Coastal Cleanup Day (info/materials)
San Dieguito Art Guild (materials supplied)
Garden Native Tour (sponsor and information)

Description of all other Public Outreach programs

SFID, OMWD, NCWA, City of Encinitas Parks & Rec, Home Depot, CA Native Plant Society, EPA

Comments:

districtwide notices include ccr, bill stuffers

At Least As effective As

Exemption



CUWCC BMP Coverage Report 2014

Foundational Best Management Practices For Urban Water Efficiency

BMP 2.2 School Education Programs

ON TRACK

197 San Dieguito Water District

Retail

Does your agency implement School Education programs? Yes

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

Metropolitan Water District of SC, San Diego County Water Authority

Materials meet state education framework requirements? Yes

Interdisciplinary Instruction with Splash Lab. Classroom visits include projet WET activity: 3rd & 4th grade history dvd, Water Quality test kit offered gr. 6-12. water cycle posters given at classroom visits, water supply maps. Books available k-6

Materials distributed to K-6? Yes

3 & 4th history dvd, Water Cycle Posters, Our World of Water Activity Book. How to Conserve Water poster (classroom), The Incredible World of Water CD (big book for PW Week) Admiral Splash, Water Times, Waterways. SDWD kids corner/newsletter

Materials distributed to 7-12 students? No (Info Only)

Offered to SDUHSD: Water quality test kits offered gr 6-12. Solar Cup, Water Education Foundation's "California Water Problems" unit with support materials, gr 9-14; San Diego World in Harmony Curriculum guide gr 7-12; Water Science Activity Book, etc

Annual budget for school education program: 4615.00

Description of all other water supplier education programs

help promote SDCWA theater programs, promote free materials from MWD & DWR, supply maps and support resources upon request.

Comments:

events: PW Week, Seaside camp. YMCA camps cooperative efforts: fund Splash lab total 2 school visits & EEDay. Other materials: Capri, Ocean Knoll, Ecke, Ada Harris,

At Least As effective As No

Exemption No 0



CUWCC BMP Coverage Report 2014

197 San Dieguito Water District

Baseline GPCD: 200.85

GPCD in 2014 162.30

GPCD Target for 2018: 164.70

Biennial GPCD Compliance Table

ON TRACK

Year	Report	Target		Highest Acceptable Bound	
		% Base	GPCD	% Base	GPCD
2010	1	96.4%	193.60	100%	200.80
2012	2	92.8%	186.40	96.4%	193.60
2014	3	89.2%	179.20	92.8%	186.40
2016	4	85.6%	171.90	89.2%	179.20
2018	5	82.0%	164.70	82.0%	164.70

Appendix J – Water Sustainability Plan

San Dieguito Water District Water Sustainability Plan



June 2016

Section 1

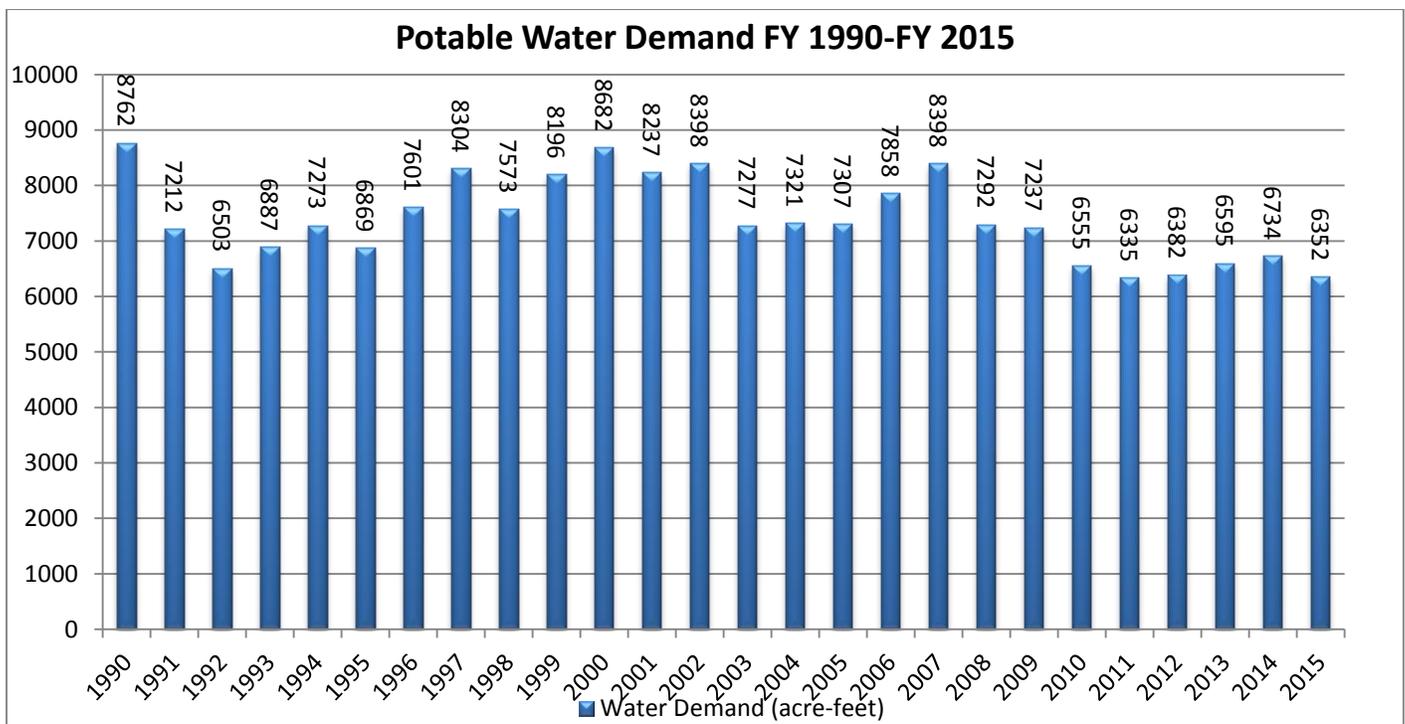
Background

Water is one of the most basic needs for life. San Dieguito Water District (District) customers depend on it for their health, well-being, and public safety. Providing a reliable, sustainable supply of water is a principal function of the District. The Urban Water Management Plan (UWMP) provides the core elements for a water sustainability plan; however, the reporting structure for the UWMP is rather rigid, which makes it challenging to succinctly document the District’s current and future efforts to achieve water sustainability. Therefore, this report has been added to provide a clear picture of the District’s Water Sustainability Plan. While the UWMP is updated every five years, the Water Sustainability Plan will be a “living” document that will be updated as conditions and/or objectives change.

In order to plan for water sustainability, it is important to first understand the water demands of the District’s customers along with the supply available to meet those demands. This section provides a description of the District’s historical and projected water demands and current water supply portfolio.

1.1 District Historical Potable Water Demands

The graph below shows the District’s historical water demands from Fiscal Year (FY) 1990 to FY 2015.

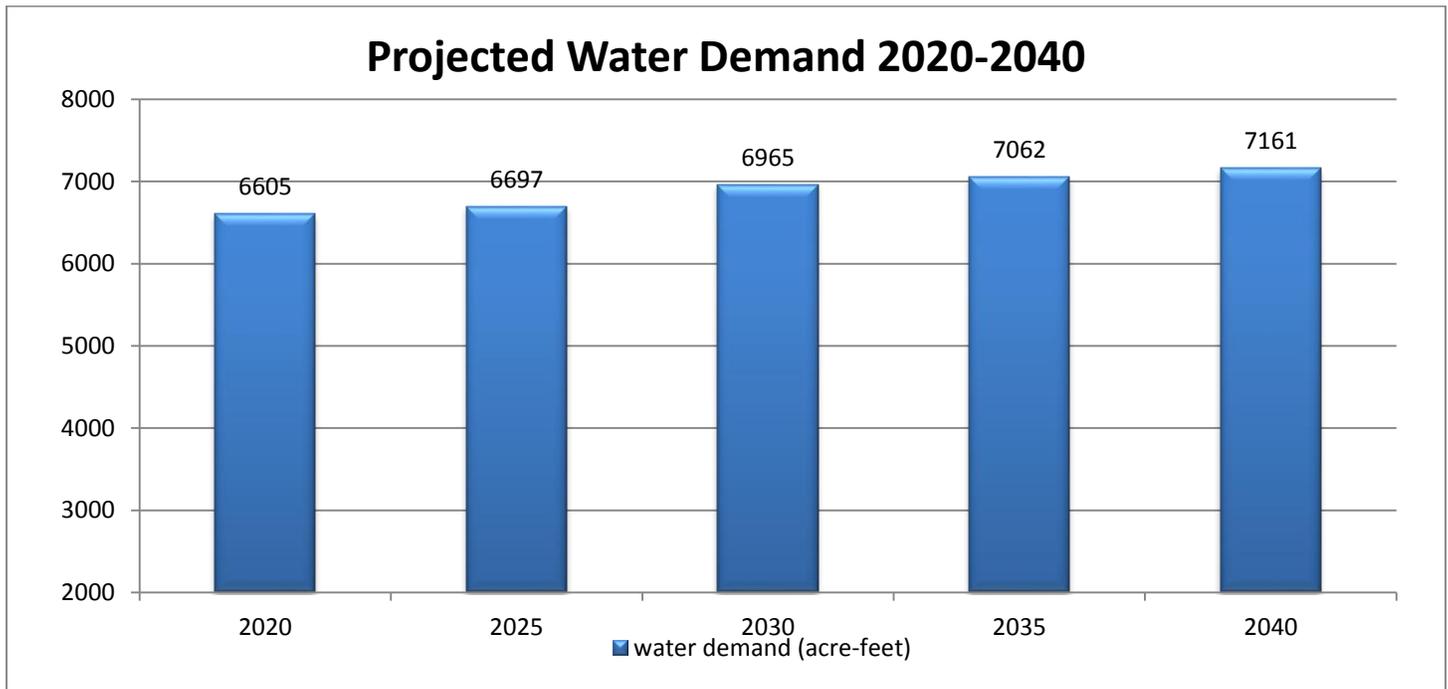


Water demand in the District increased steadily in the 1980s, and the District reached its peak demand in 1990 when customers used 8,762 acre-feet of water. Due to a severe drought in the early 1990s, water agencies in San Diego County (County) were required to significantly reduce water use. To reduce the region’s vulnerability to future droughts, County water agencies began to implement water conservation programs that improved water-use efficiency for residential, commercial, and agricultural customers. Due to the water conservation efforts, water demand in the District decreased in the early 1990s. New development within the District in the mid to late 1990s brought about an increase in water demand. The District began serving recycled water in 2000. As recycled water use increased, the District again saw a decrease in potable water demand beginning in

2003. A drought lasting from 2008 through 2011, and the current drought that began in 2012, have resulted in an additional decrease in water demand.

1.2 Projected Potable Water Demand

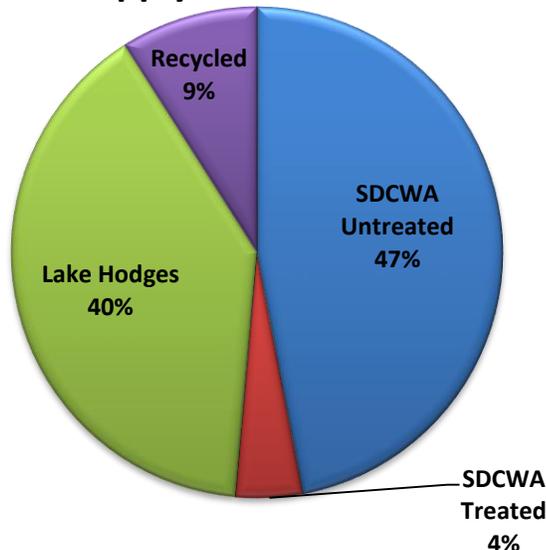
The District is over 90% built out, so future growth within the District will be minimal. Therefore, the projected increases in potable water use are relatively small. The following graph shows projected potable water demand from 2020 to 2040.



1.3 District Water Supply

The District is fortunate to have a relatively diverse water supply portfolio. The District utilizes local water from Lake Hodges, treated and untreated imported water from the San Diego County Water Authority (SDCWA), and recycled water from the San Elijo Joint Powers Authority. The water supply portfolio over the last five years is shown in the chart below.

Water Supply FY 10/11 to FY 14/15



1.3.1 Lake Hodges

The District has held certain rights to Lake Hodges water since 1923. The drainage basin for the lake is quite large, encompassing approximately 250 square miles. The total capacity of the lake is approximately 30,000 acre-feet. Current rights entitle the District to 21.33% of the inflow into Lake Hodges, the Santa Fe Irrigation District receives 28.67% of the inflow, and the City of San Diego receives 50% of the inflow.

1.3.2 SDCWA Untreated Water

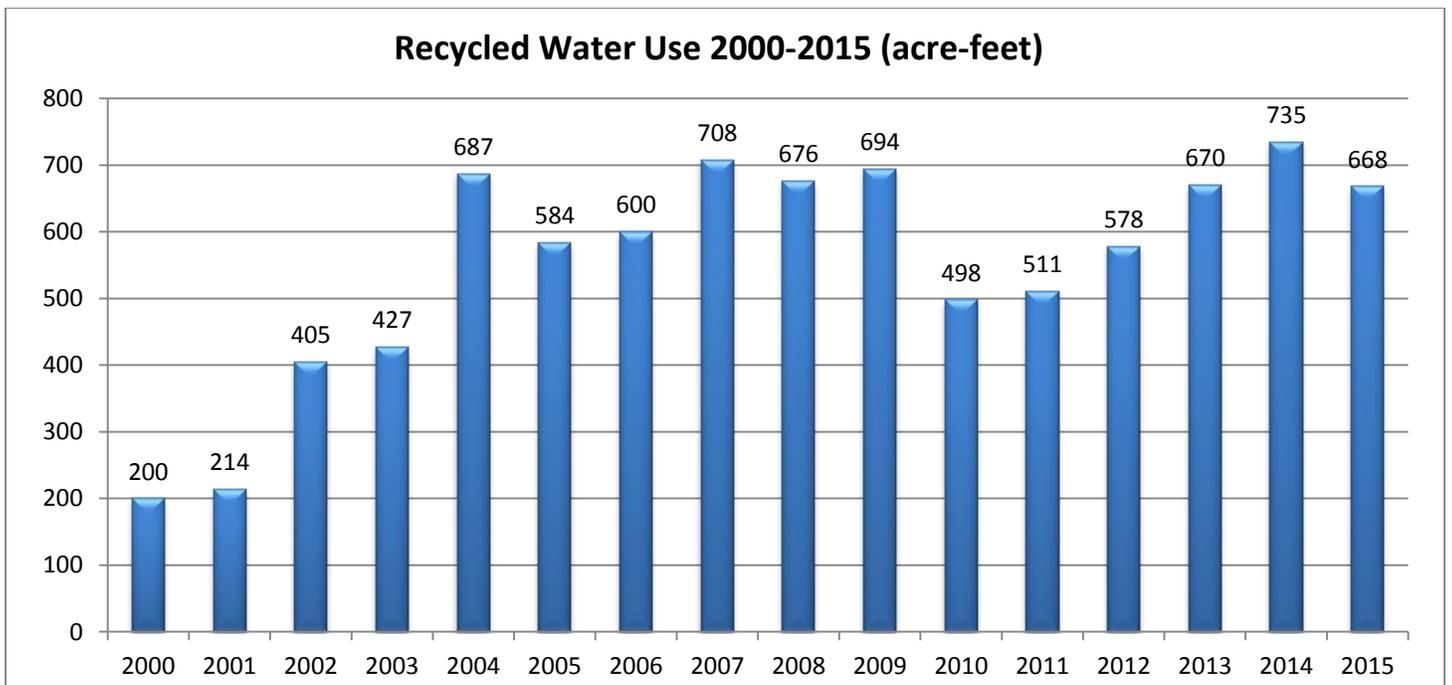
The SDCWA receives water supplied from both the State Water Project and the Colorado River. The District purchases untreated imported water from the SDCWA. This water is typically blended with Lake Hodges water and treated at the R.E. Badger Filtration Plant (Filtration Plant) which is jointly owned with the Santa Fe Irrigation District.

1.3.3 SDCWA Treated Water

The SDCWA provides treated water from both the Twin Oaks Valley Treatment Plan, which treats a blend of State Water Project and Colorado River water, and the Claude “Bud” Lewis Carlsbad Desalination Plant, which treats ocean water. The District typically purchases a small amount of treated imported water from the SDCWA each year. The treated imported water is typically used when the Filtration Plant is shut down to undergo routine annual maintenance.

1.3.4 Recycled Water

The District has been serving recycled water since 2000. The recycled water is produced by the SEJPA at its San Elijo Water Reclamation Plant. This water, treated to tertiary standards, is used to irrigate the Encinitas Ranch Golf Course, various parks, schoolyards, HOA common areas, and center medians. Recycled water use within the District is shown in the graph below.



Recycled water use steadily grew from 2000 to 2009. During the height of the 2008 to 2011 drought, when the District was requiring customers to reduce potable water use, recycled water customers also significantly decreased their use. Recycled water use began to rise again as new customers were added to the system.

Section 2

Water Sustainability Plan

There is no single answer to enhancing water sustainability. An agency must utilize a combination of demand management measures and water supply enhancement to maximize reliability and sustainability. This section discusses the District's current efforts in achieving water sustainability.

2.1 Water Demand Management Measures

The objective of water demand management is to reduce overall water demand. The District achieves demand reduction through its water conservation program and by minimizing water losses in the distribution system.

2.1.1 Water Conservation Programs

Water conservation is typically the most inexpensive tool for achieving water reliability. Many water conservation programs cost approximately \$100 to \$200 per acre-foot of water saved. That is significantly less than imported water (\$1,165 per acre-foot) or recycled water (\$1,356 per acre-foot).

The District began implementing water conservation programs in the early 1990s. In 1991, the District became a signatory of the California Urban Water Conservation Council's Memorandum of Understanding Regarding Urban Water Conservation in California (MOU). In signing the MOU, the District committed to making a good faith effort to implement certain urban water conservation Best Management Practices. That commitment continues today.

Water conservation programs and outreach offered by the District, oftentimes in collaboration with other agencies including SDCWA and Metropolitan Water District of Southern California (MWD), include the following:

- Water conservation rebates and incentives
- Commercial and residential conservation audits and surveys
- Professional and residential workshops
- Customer outreach and education
- Large landscape irrigation budgets
- Water conservation contests

In order to remain effective, water conservation measures have evolved over time. In the 1990s, the focus was on reducing indoor water use, mainly through the replacement of inefficient toilets and showerheads. Once a majority of toilets and showerheads had been replaced, new measures were implemented. Today, the primary focus of water conservation methods is to reduce outdoor water use.

2.1.2 System Water Loss Control

All agencies experience some water loss within their water system each year. Fire hydrants are knocked over, water mains occasionally develop leaks, and dead-end mains must be flushed regularly to maintain water quality. According to the American Water Works Association, the average water agency experiences an annual water loss of 8% to 12% of its total demand. The District's average water loss over the last five years is 2.4% of total demand. To put this in perspective, if the District's water losses were equal to the industry average of 10% instead of 2.4%, the District would be losing an additional 160 million gallons of water each year. Measures that District staff take to minimize water losses include the following:

- Meter Replacement Program - The District replaces water meters every 12 to 15 years. Meters older than 15 years begin to under-read, which increases water loss.
- Non-destructive testing of water mains – Performing non-destructive testing on water mains provides staff with an assessment of the remaining life of the main. Knowing the approximate remaining life of a main allows staff to maximize the useful life of the pipe and plan for the replacement of the main before main breaks or major leaks occur. Non-destructive testing also includes leak detection, so any leaks that are found can be repaired.
- Utilize recycled water for fire hydrants at the San Elijo Water Reclamation Facility – Providing fire flow to the facility creates certain water quality issues that can only be resolved by periodically flushing the potable water from the main. The District is currently working on a project that will allow the fire hydrants at the facility to utilize recycled water. When the project is complete, the District will see a reduction in system water loss due to reduced system flushing.

2.1.3 Water Supply Shortage Response Plan

San Diego County is a semi-arid region with limited local water supply sources. The District may experience water supply shortages due to drought conditions, regulatory restrictions placed upon imported water supplies, and other factors. Planning for water supply shortages is essential in order to assure adequate supplies of water are available to meet the needs of the public, and further the public health, safety and welfare of the customers. The District’s Water Supply Shortage Response Program (Program) establishes four levels of water supply response actions to be implemented in times of shortage, with increasing restrictions on water use in response to decreasing available supplies. The Program allows the District to control water use, provide water supplies, and plan and implement water management measures in a fair and orderly manner.

2.2 Water Supply Enhancement

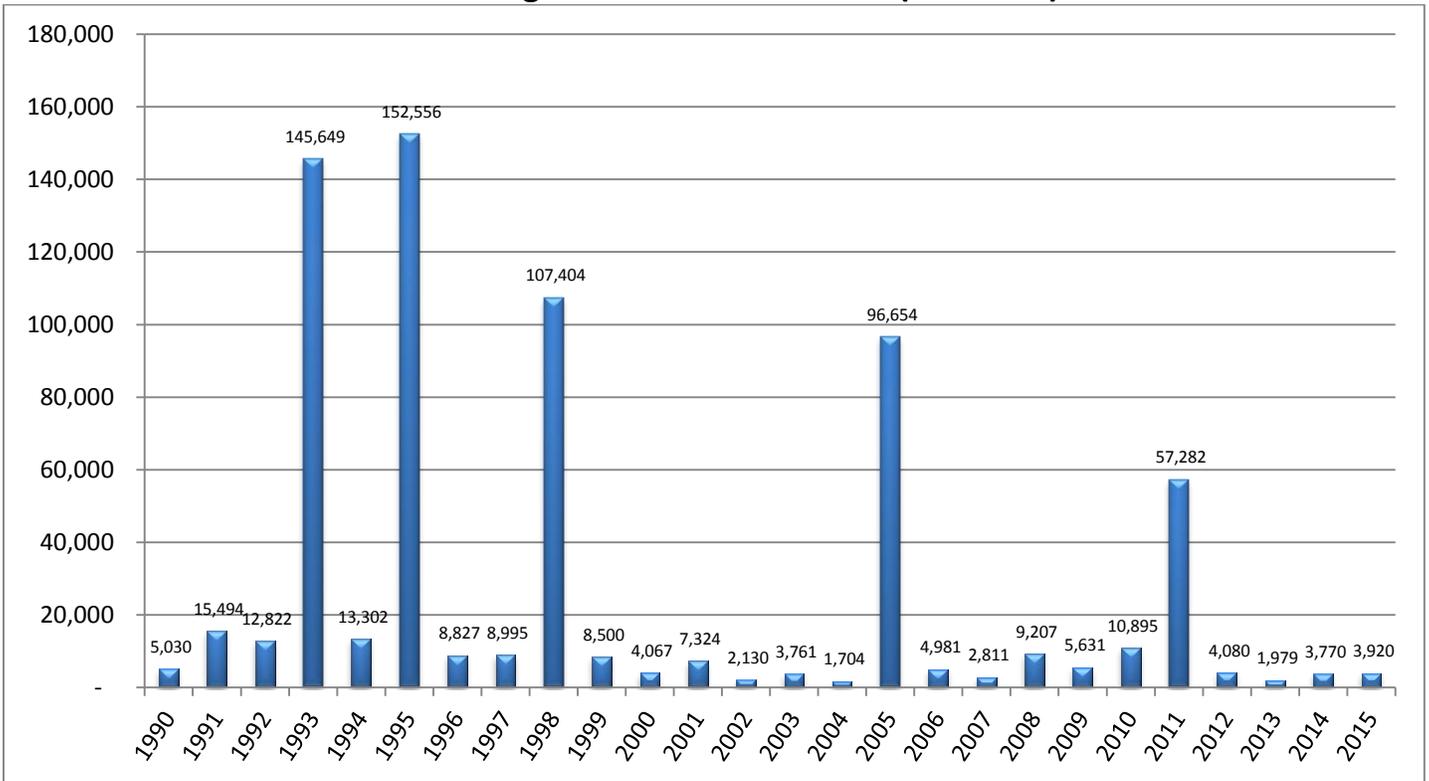
The objective of water supply enhancement is to diversify the District’s water supply portfolio. The District has several options that are currently being pursued in order to enhance its water supplies.

2.2.1 Maximize the Use of Lake Hodges Water

In 2012, SDCWA completed the Lake Hodges Project portion of their Emergency Storage Project. With the completion of this project, Lake Hodges water could now be pumped out of the lake and into the SDCWA delivery system. In 2014, an Amendment to and Restatement of the March 17, 1998 Agreement between the City of San Diego, Santa Fe Irrigation District, and San Dieguito Water District (Amended Agreement) was completed. In the Amended Agreement, San Dieguito Water District and Santa Fe Irrigation District were given the right to equally share the capacity to remove water from Lake Hodges. This could then allow the District to sell excess water to other agencies or store excess water in another agency’s reservoir.

The following graph, which shows historical Lake Hodges inflow data, illustrates the importance of having the ability to transfer water out of Lake Hodges in order for the District to maximize the use of this resource.

Lake Hodges Inflow 1990 to 2015 (acre-feet)



Inflow into Lake Hodges can vary significantly from year to year. Prior to the completion of the Lake Hodges Project, the only water removed from Lake Hodges was used to meet the water demands of the customers of San Dieguito Water District and Santa Fe Irrigation District. In years when rainfall within the region was very heavy (1993, 1995, 1998, 2005, 2011), water would spill over the dam after Lake Hodges had reached its capacity (approximately 30,000 acre-feet). By using the Lake Hodges Project infrastructure to transfer water out of Lake Hodges during large rainfall events, the yield of the lake can be maximized. The water transferred out of the lake can then be sold to other water agencies or stored in another agency’s reservoir.

San Dieguito Water District and Santa Fe Irrigation District staff are currently negotiating a Lake Hodges Water Sales Agreement with the San Diego County Water Authority. Once completed, staff will contact other water agencies to see if there is interest in purchasing Lake Hodges water. Finally, staff will work with agencies that have large storage reservoirs to develop an agreement that would allow San Dieguito Water District and/or Santa Fe Irrigation District to store excess water in their reservoir.

2.2.2 Maximize the Use of Recycled Water

There are still some opportunities to convert existing potable water customers to recycled water. The District is currently working with the San Elijo Joint Powers Authority on a recycled water main extension that will allow the Encinitas Ranch HOA to convert their common area landscaping to recycled water. The project, which is projected to be complete in mid-2017, will utilize approximately 50 acre-feet of recycled water per year.

The District has several other existing potable water sites located adjacent to recycled water mains that are good candidates for conversion to recycled water. These customers include the following:

<u>Customer</u>	<u>Potential Recycled Water Use (acre-feet/year)</u>
Dramm & Echter Greenhouse	55
North Coast Business Park	14
Silverado Senior Living	10
Quail Park HOA	8
Cardiff Apartments	7
West Hampton Cove HOA	4

District staff is in contact with the owners of these sites and will work with them to assist in the recycled water conversion process.

2.2.3 Explore Opportunities for Alternative Water Supplies

District staff seek to explore opportunities for alternative water supply projects that are economically viable. The project that is currently under consideration is a potable reuse project in partnership with the SFID and SEJPA. A Potable Reuse Feasibility Study (Study) has been prepared by Trussell Technologies Inc., a leading expert in potable reuse. The Study consists of three technical memorandums summarized below.

TM 1 – Status of Potable Reuse Projects

TM 1 provides a summary of existing potable reuse projects in California, the evolution of the Division of Drinking Water’s regulations governing potable reuse, and the timeline for the development of new regulations for surface water augmentation, as well as the feasibility of direct potable reuse.

TM 2 – Ultimate Potable Reuse Project

TM 2 provides a description of an ultimate potable reuse project that could deliver approximately 4,480 acre-foot (AF) per year of advance treated water from the San Elijo Water Reclamation Facility (SEWRF) to the San Dieguito Reservoir (SDR) by the end of 2025 for an estimated cost of \$1,520 per AF. The ultimate project does not meet the draft regulatory criteria for a surface water augmentation project and may require an alternate permitting process. This ultimate project is building on the concept developed for the City of San Diego’s pursuit of a project to augment Miramar Lake and provides the greatest volume of water at the lowest cost but also faces the most significant challenges.

TM 3 – Near-Term Potable Reuse Project

TM 3 provides a description of a short-term potable reuse project that could be developed to deliver approximately 1,200 AF per year of advance treated water from the SEWRF to the SDR within the next six years for an expected cost of \$1,890 per AF. This project will conform to the existing draft criteria for surface water augmentation regulations.

Study Conclusions

The primary conclusion of the feasibility study is that a potable reuse project utilizing surface water augmentation could be permitted with the Division of Drinking Water. A near-term project could produce enough drought-proof water to satisfy approximately 9% of the District’s potable water demands, while the ultimate project could satisfy approximately 35% of the District’s demands. The cost of potable reuse water is estimated to range between \$1,500 and \$2,000 per acre-foot. Should grant funding be received for this project, the cost per acre-foot would be lower. To give some perspective on these costs, the cost of imported treated water is currently \$1,165 per acre-foot, and the cost of water from the Carlsbad Desalination Plant is approximately \$2,300 per acre-foot. Recycled water costs \$1,356 per acre-foot, but its use is highly restricted.

The study identifies some significant challenges associated with developing a potable reuse project. Those challenges include:

- **Utility size, coordination, and governance:** establish a governance structure between SFID, SDWD, and SEJPA for this project – a regulatory requirement for permitting authorities is that the participating parties have the *Technical, Managerial, and Financial* resources dedicated to ensure success.
- **Wastewater supply:** additional wastewater flows need to be identified to provide adequate source water to meet the ultimate project potable reuse goals.
- **Replacing recycled water commitments:** replacement sources for the existing non-potable recycled water customers need to be identified, given that all of the flow from SEWRF would be allocated for the Advanced Water Purification Facility (AWPF).
- **Source control:** expanding wastewater flows into SEWRF will require additional evaluation of source control and industrial pre-treatment programs.
- **Improvements to SEWRF:** modifications to the SEWRF are needed prior to the implementation of the AWPF and will likely be important drivers for schedule.
- **Reservoir modeling:** modeling of the SDR is required to demonstrate the hydraulics and to quantify dilution and mixing within the reservoir.
- **Modification of San Dieguito Reservoir operation:** To maximize the benefit of SDR for potable reuse, modifications of the current reservoir operation will be needed. The draft Surface Water Augmentation regulations focus on two main functions of the reservoir: dilution and retention time. Providing adequate mixing of the AWPF water in the reservoir will be critical to achieve sufficient dilution within the reservoir and ensure the treatability of the water in Badger Water Filtration Plant (WFP). The retention time of purified water in the reservoir can be maximized by (1) reducing other influent flow sources and (2) increasing the reservoir capacity. Currently, SDR is used for pre-treatment of Lake Hodges water prior to Badger WFP. Improvements at Lake Hodges that eliminate the need for pre-treatment at SDR would increase the available retention time for AWPF water and offer significant advantages for the reservoir augmentation project. Dredging would also increase SDR capacity and increase the retention time for potable reuse.

The next step in the development of this project will be the formation of a Project Management Team (PMT). The PMT will consist of SDWD, SFID, and SEJPA staff along with engineering, finance/grant, operations, public outreach, and water resource consultants that have experience in potable reuse and/or water supply development projects and will oversee the following:

- the regulatory permitting process
- the necessary studies to support environmental reporting and project development
- development of preliminary design documentation
- public outreach activities
- identification of funding sources
- assistance in the development of a governance structure for a joint potable reuse project

2.2.4 Support the San Diego County Water Authority's Efforts to Diversify its Water Supply Portfolio

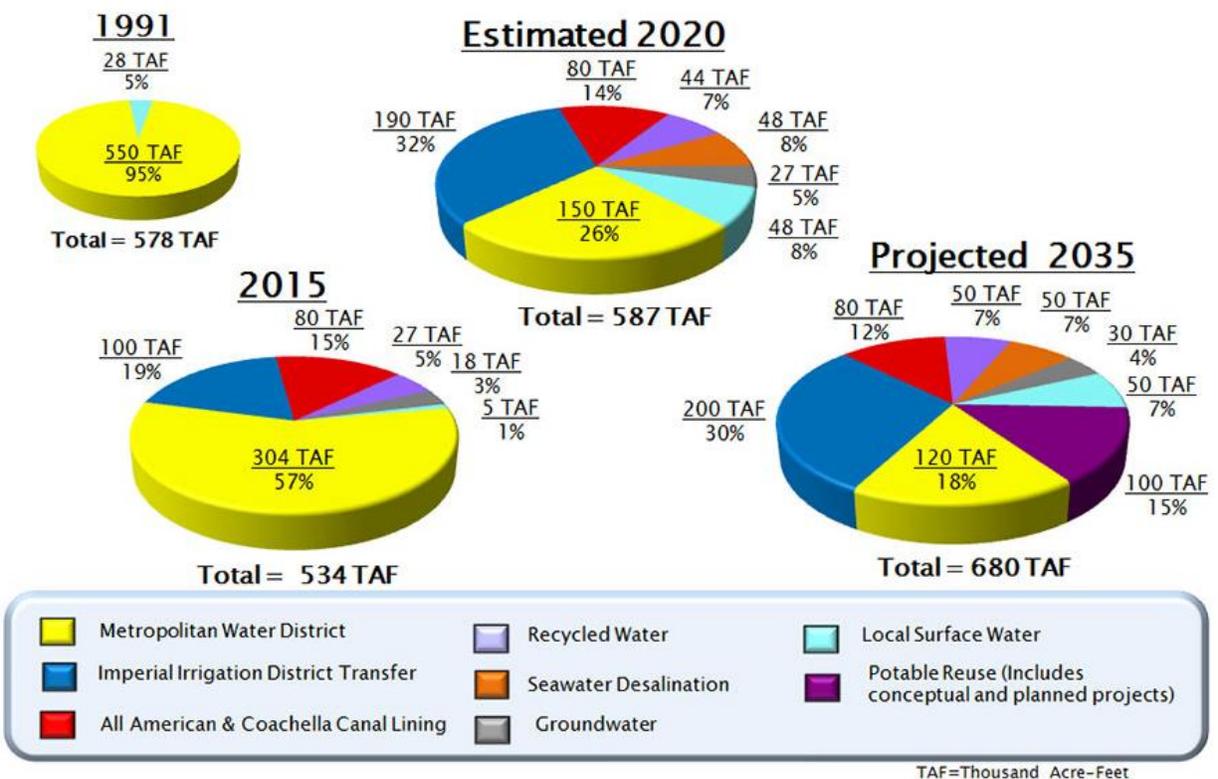
The District will most likely always rely on some imported water to meet a portion of its water demands. Therefore, it is important that the District support SDCWA's efforts to increase San Diego County's water supply reliability through supply diversification.

In 1991, the San Diego region was 95% reliant on a single supplier of water – the Metropolitan Water District of Southern California (MWD). This made the region extremely vulnerable to water supply shortages. That year, an ongoing drought forced MWD to cut deliveries to SDCWA by 31%. As a result of that crisis, the SDCWA Board of Directors approved a strategy to aggressively diversify the region’s water supply portfolio by developing new local and imported water supplies.

SDCWA, working with its 24 member agencies, is developing local resources such as groundwater, recycled water, seawater desalination, and conservation. SDCWA has also secured new imported water supplies through a conservation-and-transfer agreement with the Imperial Irrigation District. The deal will provide 200,000 acre-feet of highly reliable Colorado River water annually by 2021. In addition, SDCWA has a separate agreement to receive Colorado River water by lining sections of the Coachella and All-American canals. These projects provide 80,000 acre-feet of water to the region annually.

The efforts made to enhance the region’s water supply portfolio have paid off. As shown in the table below, in 2015, SDCWA had reduced its reliance on MWD supplies to 57%. By 2020, SDCWA anticipates reducing its reliance on MWD supplies to 26%. By 2035, it is estimated that this number will be further reduced to 18%.

San Diego County’s Water Supply Portfolio



Section 3

Conclusion

The District is in a very favorable position with regard to water sustainability. Due to a robust water conservation program, the implementation of the recycled water program, and a customer base that is very conservation-oriented, the District's current potable water demands are about the same as they were 40 years ago. Considering the fact that the District's population has increased by almost 50% over those 40 years, having the same potable water demands is a significant achievement.

With regard to water supply, having rights to Lake Hodges, a local water source, means that the District is less reliant on imported water than most agencies in San Diego County. District staff continue to explore opportunities to further reduce reliance on imported water. Staff is currently developing sales and/or storage agreements for Lake Hodges water in order to increase the yield of this local source. Staff is working on converting certain sites using potable water for irrigation to recycled water in an effort to maximize the use of this drought-proof source. Finally, the results of the Potable Reuse Feasibility Study show that there is a potentially viable potable reuse project that could provide a new drought-proof, local water supply to the District.

While the District may be able to minimize the use of imported water, it will most likely need to use some imported water to meet water demands in the future. So SDCWA's efforts to enhance imported water supply reliability through water supply diversification also improve the District's water sustainability.

A good measure of the sustainability of an agency's water supply is its ability to meet customer demands during a drought. During the current drought, which is now entering its fifth year, SDCWA has stated that it can meet 99% of the District's normal water demands. Being able to meet normal demands during a historic drought indicates that the efforts to increase water sustainability, at both the local and regional level, have been and will continue to be successful.

Appendix K – Notice of Public Hearing



SAN DIEGUITO WATER DISTRICT

160 CALLE MAGDALENA

ENCINITAS, CA 92024

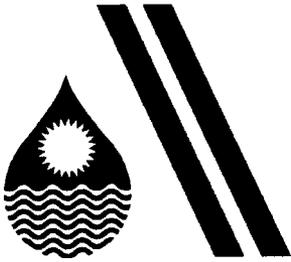
PHONE: (760) 633-2709

FAX: (760) 436-3592

Notice of Public Hearing 2015 Urban Water Management Plan

NOTICE IS HEREBY GIVEN that a public hearing will be held before the San Dieguito Water District Board on Wednesday, June 15, 2016 at 5:00 PM in the City Council Chambers of the City of Encinitas located at 505 South Vulcan Avenue, Encinitas, CA 92024 to receive comments on the District's 2015 Urban Water Management Plan. The California Urban Water Management Planning Act requires that each urban water supplier providing water for municipal purposes shall prepare and adopt its urban water management plan at least once every five years. The draft of the Urban Water Management Plan is available for review on the District's website under the "News" tab at <http://www.encinitasca.gov/index.aspx> , or by contacting Blair A. Knoll, San Dieguito Water District at BKnoll@SDWD.org . Persons unable to attend the hearing may submit their written statements on the matter to the General Manager, San Dieguito Water District, 160 Calle Magdalena, Encinitas, CA 92024, prior to the date and time set for the hearing.

Appendix L – June 15, 2016 Board Agenda



**AGENDA
REGULAR MEETING OF THE
SAN DIEGUITO WATER DISTRICT – 5:00 P.M.
WEDNESDAY, JUNE 15, 2016**

***Council Chambers
505 South Vulcan Avenue
Encinitas, California 92024***

A copy of the Board meeting packet may be viewed by the public in the City Hall lobby and on the City's webpage at www.encinitasca.gov.

Members of the San Dieguito Water District Board

***Board Member Blakespear will be teleconferencing from the following location:
5233 Pinnacle Drive, Knoxville, TN 37914***

***Lisa Shaffer
President***

***Kristin Gaspar
Vice President***

***Catherine S. Blakespear
Board Member***

***Tony Kranz
Board Member***

***Mark Muir
Board Member***

The San Dieguito Water District Board welcomes you and encourages your continued interest and involvement in the District's decision-making process.

KNOW YOUR RIGHTS UNDER THE OPEN GOVERNMENT LAWS: Government's duty is to serve the public, reaching its decisions in full view of the public. Commissions, Boards and other agencies of the City exist to conduct the people's business. For more information on your rights under the Brown Act and other State laws, visit the City of Encinitas' webpage at www.encinitasca.gov under the heading Resources.

Any writings or documents provided to a majority of the Board regarding any item on this agenda received after the posting of the agenda and prior to the meeting will be made available for public inspection in the City Hall lobby during normal business hours.

The above mentioned agency is an equal opportunity public entity and does not discriminate on the basis of race, color, ethnic origin, national origin, sex, religion, veteran's status or physical or mental disability in employment or the provision of service. In compliance with the Americans with Disabilities Act/Section 504 Rehabilitation Act of 1973 if you need special assistance to participate in these meetings, please contact the City Clerk at 760-633-2601.

INFORMATION ON CLOSED SESSIONS

When necessary, the Board may convene a special meeting closed session. The closed session agenda will be posted on the City's webpage and outside City Hall at least 24 hours prior to the scheduled closed session. Members of the public may speak on closed session items on the agenda following opening of the special meeting prior to the Board adjourning to closed session.

VISUAL MATERIALS FOR CITY BOARD MEETINGS

To ensure that the District meets your needs when addressing the Board, all presentation materials which require the use of visual equipment need to be submitted to the City's IT Division no later than 5:30 p.m. on the day of the actual meeting. This includes photographs, Microsoft Office documents (PowerPoint, Word, Excel), audio and visual CD's, DVD's, and USB thumb/flash drives. All materials must be in PC format. Please label all materials with the agenda item number you are representing. We prefer that digital presentation items be emailed to helpdesk@encinitasca.gov at least 24 hours in advance of the meeting. (except for appeal hearings where materials must be submitted 7 days in advance). Should technical assistance be necessary, it will be available to presenters from 5:30 p.m. to 5:50 p.m. on the day of the meeting. Presentation of video/digital/photographs are considered part of the maximum time limit provided to speakers.

PROCEDURES FOR ADDRESSING THE BOARD (Speaker Slips will be accepted no earlier than 30 minutes before the start of the meeting)

ORAL COMMUNICATIONS: Thirty (30) minutes are set aside at each meeting for citizens who wish to address an issue not on the agenda. The purpose of oral communications is to bring to the attention of the Board a matter or matters which do not appear on the agenda. Remarks shall be addressed to Board as a body and not to any member of the Board, staff or the public. State law prohibits Board action on non-agenda items because the public would be unaware prior to the meeting of any potential action. If needed, Oral Communication items will be referred to the General Manager either for resolution by administrative action or placement on a future agenda by the President/Chair or at the request of at least two Board Members. **Each speaker is allowed three (3) minutes to address the Board. Time donations are not permitted during Oral Communications. Please submit a "WHITE" speaker slip to the City Clerk.**

CONSENT CALENDAR: Those matters which are considered routine by the General Manager shall be initially placed on the Consent Calendar. Before adopting the Consent Calendar, the Chair will ask members of the public and members of the Board whether anyone wishes to add an agenda item to the Consent Calendar or to remove a matter from the Consent Calendar. Any member of the public may remove an item from the Consent Calendar by submitting a "PINK" speaker slip to the City Clerk. The Board will then proceed with consideration of the remaining Consent Calendar. The Consent Calendar will be enacted upon with one motion, and the ordinances being read by title will be waived. There will be no separate discussion of these matters. Items pulled from the Consent Calendar will be considered immediately following adoption of the remaining Consent Calendar, and staff reports will only be given if requested by the person who pulled the item. **Each speaker is allowed three (3) minutes to address the Board. A maximum of two time donations per speaker is allowed (no more than 9 minutes total). Please submit a "PINK" speaker slip to the City Clerk.**

AGENDA ITEMS: To speak on items listed on the agenda (other than Oral Communications), please submit a "PINK" speaker slip to the City Clerk. In addition, a person in attendance who wishes to register support or opposition to a recommended action without speaking may do so by completing a "PINK" speaker slip and checking the appropriate box and the box "but do not wish to speak". **Each speaker is allowed three (3) minutes to address the Board. A maximum of two time donations per speaker is allowed (no more than 9 minutes total); the person donating time must be present.**

Live broadcasting of the San Dieguito Water District Board meetings will be transmitted for regularly scheduled meetings which are held on the third Wednesday of each month beginning at 5:00 p.m. on Channel 19 on Cox Communications, Channel 24 on Time Warner Cable (duplicate coverage on Channel 128 has been discontinued), and Channel 99 on AT&T U-Verse (Program Name: "City of Encinitas Broadcasts").

The San Dieguito Water District Board meetings are also broadcasted live via the Internet on our website at www.encinitasca.gov. Past meetings will also be archived for viewing via the internet.

S1. CALL TO ORDER

San Dieguito Water District Board Members receive an independent stipend of \$100 for convening the Water District meetings pursuant to San Dieguito Water District Resolution No. 89-07.

S2. ROLL CALL

Board Member Blakespear will be teleconferencing from the following location: 5233 Pinnacle Drive, Knoxville, TN 37914

S3. PLEDGE OF ALLEGIANCE

S4. SPECIAL PRESENTATIONS AND PROCLAMATIONS

**S5. ORAL COMMUNICATIONS / POSSIBLE DIRECTION TO STAFF
(30 MINUTES)**

Each speaker is allowed three (3) minutes to address the Board. Time donations are not permitted during Oral Communications. Please submit a "WHITE" speaker slip to the City Clerk. If at least two (2) Board Members agree, direction may be given to staff to put an item on a future agenda or provide additional information to answer a question.

S6. REPORT FROM CLOSED SESSION (IF HELD)

S7. CHANGES TO THE AGENDA

Announcements of administrative changes to the agenda, in compliance with the Brown Act.

S8. CONSENT CALENDAR

The recommendations on the following Consent Calendar will be enacted in one motion unless an item is removed from the Calendar. Any member of the public may remove an item by submitting a "PINK" speaker slip to the City Clerk. Items removed from the Consent Calendar by a Board Member or the public will be considered immediately following the Consent Calendar.

S8A. Approval of the Minutes of the May 18, 2016 Regular Meeting. Contact Person: City Clerk Hollywood

Recommended Action: Approve the Minutes.

S8B. Approval of the Warrants List. Contact Person: Finance Manager Lundgren

Recommended Action: Approve the Warrants List.

S8C. San Dieguito Water District Position Titles and Pay Ranges for Fiscal Year 2016/17. Contact Person: Administrative Services Manager Umbrasas

Recommended Action: Adopt Resolution 2016-09, entitled "A Resolution of the Board of Directors of the San Dieguito Water District, Adopting Position Titles and Pay Ranges for Fiscal Year 2016/17."

S8D. Bids for the abandonment of the 30-Inch Transmission Main in Cardiff and the construction of a Recycled Water Fire Protection System for San Elijo Water Reclamation Facility. Contact Person: Senior Civil Engineer Knoll

Recommended Action: Board to authorize the General Manager to reject all bids and rebid the project.

- S8E. City of Encinitas Tentative Parcel Map 12-159 Public Water Improvements. Contact Person: Senior Civil Engineer Knoll

Recommended Action: District Board take the following actions: 1) Accept the public water improvements; and 2) Authorize the General Manager to file a Notice of Completion.

- S8F. Service Priority Policy for Lower Income Development in accordance with SB 1087. Contact Person: Engineer Olson

Recommended Action: Adopt Resolution No. 2016-06, entitled "A Resolution of the Board of Directors of the San Dieguito Water District Adopting a Service Priority Policy for Lower Income Development in Accordance with SB 1087 and Rescinding Resolution No. 2011-03."

- S8G. San Dieguito Water District's Monthly Informational Report. Contact Person: General Manager O'Donnell

Recommended Action: District Board to accept San Dieguito Water District's Monthly Informational Report.

- S8H. Construction contract for Water Main Replacement located in North County Transit District Right-Of-Way. Contact Person: Senior Civil Engineer Knoll

Recommended Action: Board to take the following actions: 1) Authorize the General Manager to enter into a contract with PAL General Engineering, Inc. in the amount of \$126,999, plus 10% contingency; and 2) Approve and authorize the creation of new capital project number CW16X and the transfer of \$150,000 from existing capital project number CW16C for the purposes of tracking expenses related to this work.

S9. ITEMS REMOVED FROM THE CONSENT CALENDAR

Staff reports will be given only if requested by the person who pulled the item.

S10. ACTION ITEMS

- S10A. Public Hearing regarding San Dieguito Water District's 2015 Urban Water Management Plan. Contact Person: General Manager O'Donnell

Recommended Action: District Board take the following actions: 1) Receive public comments regarding San Dieguito Water District's 2015 Urban Water Management Plan, review and discuss the information presented, and advise staff of changes, if any, desired by the Board; and 2) Adopt Resolution No. 2016-07, entitled "A Resolution of the Board of Directors of San Dieguito Water District Adopting the District's 2015 Urban Water Management Plan."

- S10B. Approval of Fiscal Year 2016/17 San Dieguito Water District Budget ("Second-Year Revise"). Contact Person: Administrative Services Manager Umbrasas

Recommended Action: Adopt Resolution No. 2016-08, entitled "A Resolution of the Board of Directors of the San Dieguito Water District, Approving the Fiscal Year 2016/17 San Dieguito Water District Operating and Capital Budget (Second-Year Revise)."

S10C. San Dieguito Water District Strategic Plan Development Process. Contact Person: General Manager O'Donnell

Recommended Action: District Board take the following actions: 1) Receive the presentation, discuss the information presented as desired, and provide direction as appropriate; and 2) Appoint two Board Members to participate on the District's Strategic Plan Development Subcommittee.

S11. INFORMATIONAL ITEMS

S11A. Informational Presentation on the Drought and the District's response to the State Water Resources Control Board's Emergency Regulations. Contact Person: General Manager O'Donnell

Recommended Action: District Board to receive the presentation, discuss the information presented, and provide direction as appropriate.

S12. FUTURE AGENDA ITEMS ADDED BY BOARD MEMBERS

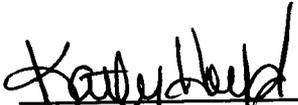
S13. BOARD MEMBER REPORTS PURSUANT TO AB1234 (GC 53232.3(d)) / POSSIBLE DIRECTION TO STAFF

S14. GENERAL INFORMATION / STAFF STATUS REPORTS

S15. ADJOURNMENT

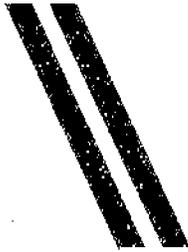
CERTIFICATION

I, Kathy Hollywood, Board Clerk of the San Dieguito Water District, hereby certify that the foregoing agenda was posted on the City of Encinitas website, www.encinitasca.gov, and on the City Hall outside bulletin board located at 505 South Vulcan Avenue, Encinitas, California, on June 10, 2016, 72 hours before this regular meeting.


Kathy Hollywood, Board Clerk

THE NEXT REGULAR BOARD MEETING WILL BE HELD ON AUGUST 17, 2016

Appendix M – Agenda Report



AGENDA REPORT

San Dieguito Water District

MEETING DATE: June 15, 2016

GENERAL MANAGER: Bill O'Donnell

PREPARED BY: Bill O'Donnell

CITY MANAGER: Karen P. Brust

SUBJECT:

Public Hearing Regarding San Dieguito Water District's 2015 Urban Water Management Plan

RECOMMENDED ACTION:

District Board take the following actions:

1. Receive public comments regarding San Dieguito Water District's 2015 Urban Water Management Plan, review and discuss the information presented, and advise staff of changes, if any, desired by the Board.
2. Adopt Resolution No. 2016-07, entitled "A Resolution of the Board of Directors of San Dieguito Water District Adopting the District's 2015 Urban Water Management Plan."

STRATEGIC PLAN:

Adding a Water Sustainability Section to San Dieguito Water District's 2015 Urban Water Management Plan is an Environment Focus Area Strategic Plan goal.

FISCAL CONSIDERATIONS:

The District's Capital Improvement Program budget includes \$50,000 to develop the 2015 Urban Water Management Plan. The total contract price for plan preparation was \$29,053.

BACKGROUND:

The Urban Water Management Planning Act of 1983 requires that each urban water supplier update its Urban Water Management Plan (UWMP) every five years. The UWMP is a tool to confirm that water agencies are adequately planning to have sufficient water supplies to meet existing and future water demands under normal and extended dry periods. On June 22, 2011, the District Board of Directors (Board) adopted San Dieguito Water District's (District) 2010 UWMP. In order to comply with state law, the Board must adopt the District's 2015 UWMP and the District submit the plan to the California Department of Resources by July 1, 2016.

Infrastructure Engineering Corporation (IEC) was selected to prepare the District's 2015 UWMP. IEC had previously prepared the 2010 UWMP.

ANALYSIS:

IEC has completed a draft of the District's 2015 UWMP. The plan details the District's water supply assessments, water shortage contingency plan, recycled water program, and water conservation programs. Integral to the UWMP is the District's compliance with SB X7-7. SB X7-7 requires agencies to reduce their Gallons Per Capita per Day (GPCD) potable water usage

10% by 2015 and 20% by 2020. Failure to meet SB X7-7 requirements can affect an agency's eligibility for state grant and loan funding opportunities. The District's 2015 target is 170 GPCD, while the District's actual 2015 usage was 147 GPCD. Therefore, the District is currently in compliance with SB X7-7. The District's 2015 actual usage is also below the 2020 target, which is 151 GPCD.

The District is also in a Regional Alliance (Alliance) with Olivenhain Municipal Water District, Vallecitos Water District, and Rincon del Diablo Municipal Water District to meet SB X7-7 requirements. The advantage to being in this Alliance is that the District has two opportunities to meet the required water use reduction targets, either individually or with the Alliance. Should the District not meet its individual target, but the Alliance does meet its target, then the District is considered in compliance with SB X7-7 requirements. The Alliance's 2015 target is 228 GPCD, while its 2015 actual usage was 170 GPCD. Therefore, the Alliance is also in compliance with SB X7-7.

As part of the City's visioning and strategic planning process, the Encinitas City Council identified the preparation of a local water sustainability plan as a goal statement under the Environment Focus Area. Since the UWMP contains the basic elements of a water sustainability plan, information from the 2010 UWMP was presented at the March 19, 2014 District Board meeting. The reporting structure of the UWMP is rather rigid though, which makes it challenging to succinctly document the District's current and future water sustainability efforts. Therefore, District staff have added a Water Sustainability Plan (Appendix J) to the 2015 UWMP to provide a clear picture of the District's water sustainability actions. While the UWMP is updated every five years, the Water Sustainability Plan will be a "living" document that will be updated as conditions and/or objectives change.

Finally, the 2015 UWMP will be utilized to facilitate the update to the City of Encinitas Climate Action Plan as it relates to water demand reduction, decreasing reliance on imported water, and maximizing the use of recycled water.

ENVIRONMENTAL CONSIDERATIONS:

The project is categorically exempt pursuant to Section 15306, Class 6 of the California Environmental Quality Act (CEQA) related to information collection.

ATTACHMENTS:

Attachment 1 – Resolution No. 2016-07

Attachment 2 – Draft 2015 Urban Water Management Plan

Appendix N – Resolution 2016-07