



Ramona Municipal Water District 2010 Urban Water Management Plan

December 2011

RAMONA MUNICIPAL WATER DISTRICT

2010 URBAN WATER MANAGEMENT PLAN

December 2011

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SECTION 1 INTRODUCTION

This section of the 2010 Urban Water Management Plan (UWMP) provides an introduction to the Ramona Municipal Water District (District), summarizes the Urban Water Management Planning Act (UWMP Act), the coordination process, the history and description of the District, the physical water delivery system, and service area characteristics.

The District is a public agency organized under the Municipal Water District Law of 1911, Water Code Section 71000. The District is governed by five-member Board of Directors, whose members are publically elected to staggered four-year terms, and an appointed General Manager. The mission of the District is to provide a safe and reliable supply of water to its customers in the District Service Area of San Diego County. This 2010 UWMP identifies a mix of water resources projected to ensure long-term water supply reliability for the District over the next 25 years.

The District is a member agency of the San Diego County Water Authority (Water Authority), which is in turn a member agency of the Metropolitan Water District of Southern California (Metropolitan). The District relies on Metropolitan and Water Authority to continue to provide a reliable supply of imported treated and untreated water to the region.

1.1 CALIFORNIA URBAN WATER MANAGEMENT PLANNING ACT

The following plan has been prepared in accordance with State of California Assembly Bill No. 797. The bill, adopted in 1983, required all water suppliers in California with more than 3,000 customers or a demand exceeding 3,000 acre-feet (AF) annually to prepare and adopt an UWMP by 1985. The legislation also required the suppliers to adopt follow-up plans by December 31, 1990. Since originally adopted in 1983, the UWMP Act has been modified by several bills:

1. Assembly Bill 2661, adopted in July 1990, formally extended the process, requiring suppliers to update their plans every five years.
2. Subsequently, Senate Bill 553 (SB 553) was signed into law on September 28, 2000, revising the Urban Water Management Planning Act by replacing the 16 Demand Management Measures (DMMs) with the 14 Best Management Practices (BMPs) currently being implemented by Group 1 signatories to the Memorandum of Understanding Regarding Urban Water Conservation in California.
3. AB 2552 was signed into law on September 28, 2000, and requires each urban water supplier to notify any city or county within which the supplier provides water supplies that the urban water supplier will be reviewing its UWMP and considering changes to the plan.
4. AB 1420 was adopted in 2007, and requires water suppliers to implement the water Demand Management Measures to be eligible for water management grants or loans administered by the Department of Water Resources (DWR).

5. SBx7-7, adopted in 2009, was passed with the goal of reducing municipal water use by 20 percent by the year 2020. SBx7-7 requires water suppliers to report baseline per capita water use, 2015 interim per capita water use target, 2020 per capita water use targets, and the bases for determining the estimates.

1.2 UWMP CONTENTS

This section provides a brief description of the contents of the plan by section.

Section 1 – Introduction: This section provides the contact sheet, an overview of the UWMP Act, and a review of the plan contents.

Section 2 – Public Participation: Section 2 provides a summary of public outreach activities, plan adoption information, agency coordination, and UWMP implementation.

Section 3 – System Description: Section 3 contains an overview of the District, including history, service area, population, climate and a description of existing facilities.

Section 4 – Water Demands: Past, current, and projected water use is summarized in Section 5. Water use is quantified for five-year increments through the year 2035 for uses such as single-family residential, industrial, commercial, etc.

Section 5 – SBx7-7 Water Use Targets: The calculation of baseline per capita water use and per capita water use targets are presented in Section 4 as required by SBx7-7.

Section 6 – Water Supply Sources: This section reviews the sources for water in the District, including groundwater, imported water, surface water, and recycled water.

Section 7 – Reliability Planning: This section discusses the frequency and magnitude of supply deficiencies, plans to ensure a reliable water supply, transfer and exchange opportunities, and projected supply and demand comparisons .

Section 8 – Shortage Contingency Analysis: This section details the District’s contingency analysis, including discussions of catastrophic water shortages and drought management planning.

Section 9 – Water Demand Management Measures: Section 9 provides a description of the District’s compliance with CUWCC BMPs.

Section 10 – Water Recycling: This section discusses wastewater generation, collection, and treatment, as well as disposal and potential recycled water uses. It also discusses actions taken to encourage recycled water use.

APPENDIX A Urban Water Management Plan Checklist

APPENDIX B RMWD Board of Directors Resolution

APPENDIX C RMWD Drought Response Conservation Program

APPENDIX D 2009 & 2010 CUWCC BMP Reports

The Department of Water Resources Urban Water Management Plan Checklist is used to confirm that the required information is included in the UWMP. A Checklist for the 2010 UWMP Update is included in **Appendix A**.

SECTION 2 PUBLIC PARTICIPATION

This section includes specific information on how the 2010 UWMP was prepared, coordinated with other agencies and the public, and adopted. This section also includes information on how the UWMP will be implemented by the District.

2.1 UWMP COORDINATION

2.1.1 Public Outreach

In accordance with the UWMP Act, the District notified the land use jurisdictions within its service area that it was preparing the 2010 UWMP. Prior to adoption, the District mailed the draft 2010 UWMP to a list of stakeholders and local agencies that included San Diego LAFCO, the San Diego Association of Governments (SANDAG) and the County of San Diego. The draft 2010 UWMP was also available for public review at the District's office and on the District's website. The District reviewed all of the comments received from stakeholders and revised the plan accordingly. A copy of the adopted 2010 UWMP will be provided to all applicable parties within sixty days of submission to DWR.

2.1.2 Agency Coordination

This report constitutes the 2010 update to the District's 2005 UWMP. To adequately demonstrate that the District will have a reliable water supply over the next 25 years, the 2010 UWMP quantifies the mix of existing and projected local and imported supplies necessary to meet future water demands within the District's service area. While the 2010 UWMP includes specific documentation on development of the District's water supplies, the UWMPs submitted by the Water Authority and Metropolitan provide details on their water supplies that are the major contributors to the diversification and reliability of supplies for the District.

Maintaining consistency among the plans of the District, Water Authority and Metropolitan is important to the accurate reflection of the projected supplies available to meet the demands of the District. To facilitate coordination of UWMPs the Water Authority formed an Urban Water Management Plan Working Group made up of staff from the Water Authority and its member agencies. This group provided a forum for exchanging demand and supply information. In addition, DWR hosted a special workshop to review the requirements of the UWMP Act. At a separate workshop, the Working Group received a briefing from Metropolitan on its regional plan, and participants discussed strategies for coordination between the supply agencies.

TABLE 1
DISTRICT COORDINATION WITH APPROPRIATE AGENCIES

Coordinating Agencies	Participated in Developing the Plan	Commented on the Draft	Attended Public Meetings	Was Contacted for Assistance	Was Sent a Notice of Intention to Adopt
Water Management Agencies					
Water Authority	X			X	X
Relevant Public Agencies					
SANDAG					X
San Diego LAFCO					X
County of San Diego					X
General Public			X		X

2.2 PLAN ADOPTION

This 2010 update of the UWMP was prepared from April 2011 through December 2011. The District's Board of Directors held a public hearing regarding the 2010 UWMP on December 13, 2011, and adopted the 2010 UWMP on January 24, 2012. The updated UWMP was submitted to the Department of Water Resources (DWR) in February 2012. See **Appendix B** for a copy of the resolution approving the filing of the 2010 Urban Water Management Plan Update. This plan includes all information necessary to meet the requirements of California Water Code Division 6, Part 2.6 (Urban Water Management Planning).

A copy of the adopted UWMP was submitted to the California Department of Water Resources, the California State Library, and is available to the public at the District's office, located at:

Ramona Municipal Water District (Engineering Counter)
 Ramona Municipal Water District Office
 105 Earham Street
 Ramona, CA 92065

2.3 PLAN IMPLEMENTATION

This UWMP provides a comparison of water supplies available to the District with the projected water demand through the year 2035, as well as discusses conservation measures the District has implemented to ensure a safe and reliable water source is available to residences of the District. As with previous UWMP updates prepared by the District, this plan will be used to provide the basis for determining that sufficient water supply is available for future proposed development.

The District has incorporated information on the District's wastewater operations in addressing the water recycling element of the 2010 UWMP, which describes the wastewater treatment requirements and water recycling potential.

This UWMP also provides the per capita water use baseline and target required by SBx7-7. The District will compare the per capita water use in upcoming years with the SBx7-7 targets to ensure the District will meet its 2015 and 2020 targets.

SECTION 3 SYSTEM DESCRIPTION

This section presents history, service area description, and population growth information for the District, as well as a summary of the climate in the District's service area.

3.1 HISTORY OF THE RAMONA MUNICIPAL WATER DISTRICT

A timeline detailing the history of the District is presented below.

1925	Ramona Irrigation District organized to encompass 660-acres, utilizing water obtained from wells.
1956	Ramona Municipal Water District organized on August 15, 1956 to encompass 20,600-acres that surrounded the Irrigation District.
1958	Poway Pump Station Built to deliver Water Authority filtered water to the District. Pump station and 18-inch pipeline become the District's treated water supply.
1967	The District acquires the Ramona Irrigation District.
1970	Annexed San Diego Country Estates, a 3,650-acre development with water and sewer system.
1972	Bargar Water Treatment Plant placed in service. Capacity is rated at 5.3-MGD but clarifiers are limited to 4.0-MGD.
1978	Untreated Water Pump Station (8.4-MGD) and 27-inch pipeline completed in 1978. Capacity is limited by 18-inch supply line, meter rated to 10.8-MGD, and flow rate of 8.2-MGD (25.5-AF/day).
1979	Assessment District 79-1 organized to provide untreated water and encompassed 6,200-acres of agricultural land primarily avocados groves.
1981	Ramona Fire Protection District dissolved and merged with Ramona Municipal Water District on June 2, 1981
1981	Ramona Sanitation District (formed in 1946) dissolved and merged with Ramona Municipal Water District (Santa Maria (800-acres, 8,000 population, 2,400 EDU)and San Vicente (2,400 acres, 8,000 population, 2,600 EDUs) on July 1, 1981
1988	Lake Ramona (13,400-AF can be expanded to 18,400-AF) dedicated for untreated water use on August 27, 1988.
2003	New Poway Pump Station and 30-in Pipeline constructed. Placed in Service September 29, 2003. Capacity limited by Water Authority meter to 18.6-MGD.
2003	Construction of San Vicente WWTP expansion to 0.80-MGD and addition of tertiary facilities and pond 3 were completed April 29, 2003.

Before 1947, the District and the San Diego region relied on local surface water runoff and groundwater pumped from local aquifers. As the economy and population have grown, local resources have become insufficient to meet the District's water supply needs. The Poway Pump Station was built in 1958 and began delivery of Water Authority treated water to the District. In 1972 the Bargar Water Treatment Plant (BWTP) was placed in service to treat water from Lake Sutherland. In 1978 the untreated water Poway Pump Station and Pipeline was built to deliver Water Authority water to the District. In August 1988 Lake Ramona was dedicated and the Poway Pump Station began delivery of untreated water to the lake. In 2003 an additional Poway Pump Station and 30-inch pipeline were added to the treated water system, bringing the ultimate capacity to 18.6 million gallons per day (MGD). Since 2007 the District's BWTP has been off-line and does not currently provide any water; further detail is provided in Section 6.7. Currently the Water Authority provides all of the District's treated and untreated water supply.

3.2 SERVICE AREA

The District provides water for urban and agricultural uses to unincorporated areas in the central area of San Diego County, including the census designated places of Ramona and San Diego Country Estates. The District's service area covers a total of 45,796-acres (72-square miles) and is the eastern boundary of the Water Authority and Metropolitan. The District encompasses the Santa Maria Valley, San Vicente Valley and surrounding hillsides with elevations from 840-foot mean sea level (MSL) to over 2,800-foot MSL. Figure 1 shows the District's service area.

The District's service area was primarily agricultural prior to 1970 when the District annexed the San Diego Country Estates and further suburban development began in the region. The County's Multiple Species Conservation Plan (MSCP) has identified large areas of the community of Ramona for grasslands and native habitat preservation. The District provides service to approximately 7,000 urban parcels and 3,000 rural parcels (greater than 1-acre) with average yearly water deliveries to its customers between 2006 and 2010 of 9,204-AF. Table 2 provides a summary of the District's current number of metered connections by customer type.

TABLE 2
CURRENT NUMBER OF CONNECTIONS BY CUSTOMER TYPE

Customer Type	Number of Connections ^a
Single-family Residential	8,400
Multi-family Residential	169
Commercial	421
Industrial	0
Institutional/Governmental	75
Landscape	13
Agricultural	301
Other	94
Total	9,473

^a Number of connections in 2010

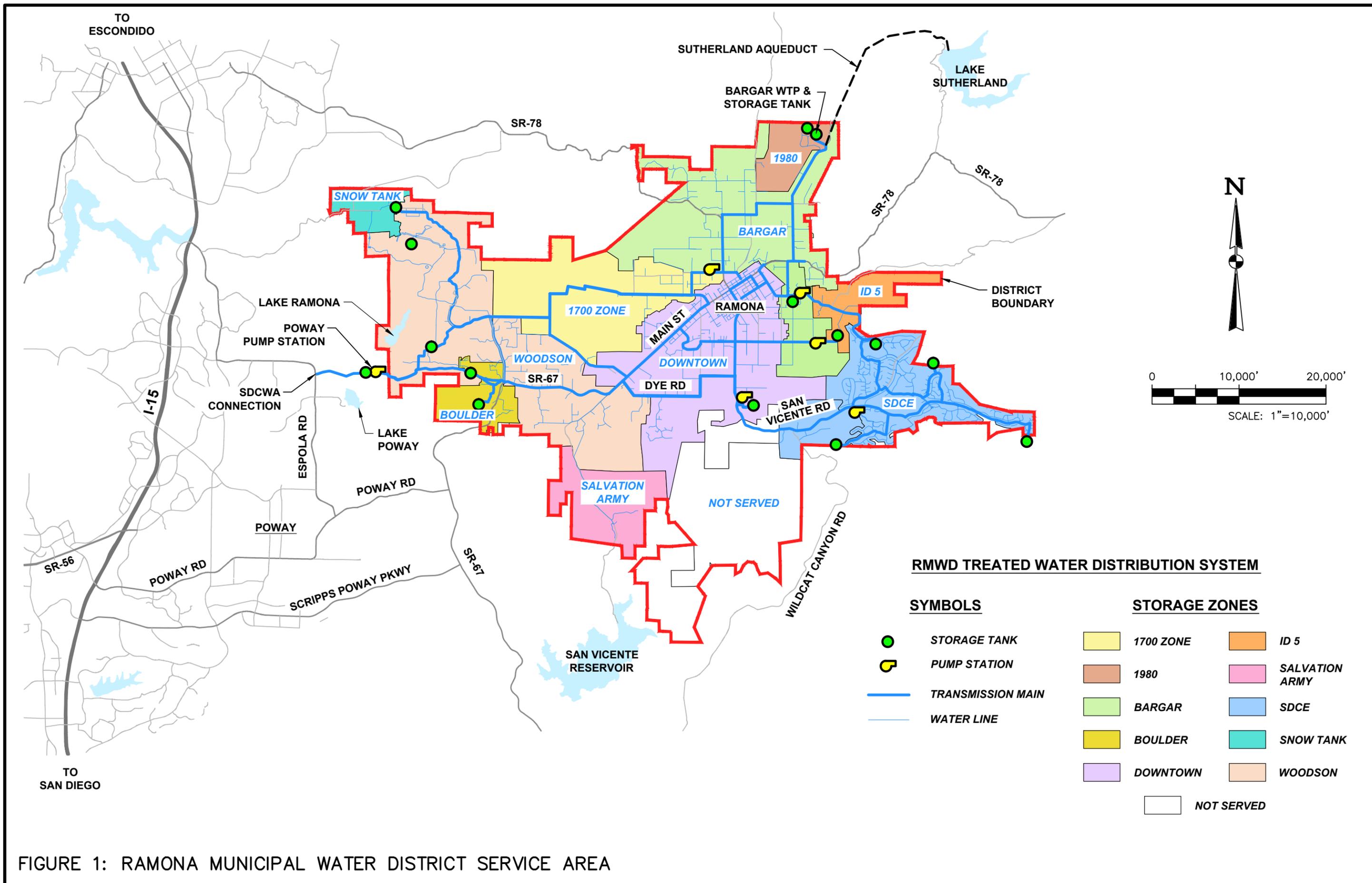


FIGURE 1: RAMONA MUNICIPAL WATER DISTRICT SERVICE AREA

3.3 POPULATION

When the District was formed in 1956, the population within the District's service area was approximately 5,600 inhabitants. In 2010, the population within the service area is estimated at 33,600. The average population density is approximately 3.0 persons per household. Over the past ten years the average annual growth rate within the District's service area has been 2.2-percent. The SANDAG 2030 Regional Growth Forecast Update projects an annual growth rate in the unincorporated region of San Diego County of 2.1-percent through the year 2030. The population projection for the District's service area through 2035 is summarized in Table 3.

TABLE 3
RAMONA MUNICIPAL WATER DISTRICT SERVICE AREA POPULATION PROJECTIONS

Year	2010 ^a	2015 ^b	2020 ^b	2025 ^b	2030 ^b	2035 ^b
Population	33,600	35,650	37,400	40,300	42,750	44,100

^a Population data from 2010 U.S. Census. Calculated per DWR 2010 UWMP Guidebook; Section M: Water Conservation Bill of 2009 Technical Methodologies, Appendix A.

^b Population projections based on SANDAG 2050 Regional Growth Forecast

3.4 CLIMATE

Climate within the District's service area is comprised of hot summers and mild winters. The District receives an annual average of 16.7-inches of precipitation in the form of rainfall. The majority of precipitation (over 80%) occurs during the months of December through April. On a monthly basis, water requirements tend to increase significantly during the summer months when a decrease in rainfall, combined with an increase in temperatures and evapotranspiration (ET) levels, lead to demands 2-3 times the average day demand. A monthly climate summary for the District's service area is provided as Table 4.

TABLE 4
RAMONA MUNICIPAL WATER DISTRICT SERVICE AREA MONTHLY CLIMATE SUMMARY

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sep	Oct	Nov	Dec	Annual
Average Max Temperature (F)	67	66	68	72	77	83	90	91	88	81	73	66	77
Average Min Temperature (F)	37	38	40	43	48	51	56	58	54	48	41	36	46
Average Total Precipitation (in.)	2.91	3.46	2.96	1.12	0.31	0.08	0.07	0.10	0.22	0.69	1.33	2.07	15.52
Average Monthly ET (in.)	2.81	2.76	3.78	5.31	6.10	6.97	7.08	6.83	5.67	4.15	3.31	2.56	57.33

Source: "Average weather for Ramona, CA". Weather.com. September 2011. Retrieved 17 September 2011.

3.5 DESCRIPTION OF EXISTING FACILITIES

The District purchases treated and untreated water from the Water Authority, delivers recycled water to three recycled water customers, and owns three wells that may be used in an emergency. In 2010, the District delivered approximately 6,585-AF AF/YR of potable and non-potable water. The District's water delivery system consists of 209-miles of water mains, 15 treated water reservoirs with a capacity of 28 million gallons (MG), and 7 untreated reservoirs with a

capacity of 13.5-MG, a 4.0-MGD water treatment plant (currently off-line), and two water reclamation plants producing recycled water at a capacity of 0.35-MGD and 0.50-MGD.

A small but growing share of the District's local supply comes from recycled water. Groundwater does not produce any significant water supply and groundwater recovery projects have not been attempted by the District. Yield from these projects would be considered drought-proof since they are primarily independent of precipitation.

3.6 CAPITAL IMPROVEMENT PROGRAM

The District's water system Capital Improvement Program (CIP) consists of projects to improve system capacity and reliability and to be built between FY 09-10 with a total use of funds of \$370,000. The District's water Capital Replacement Program consists of replacement and betterment projects required to maintain and enhance the system reliability. The FY 09-10 budget totals \$283,230.

SECTION 4 WATER DEMANDS

This section summarizes historic and future water demands within the District's service area. In 2010 the District supplied 5,856-AF to its customers. Future water demand projections will include per capita water use targets developed in Section 5. The District's entire water supply, excluding recycled water, is currently imported from the Water Authority.

4.1 HISTORIC WATER DELIVERIES

Water demands within the District have declined since 2007 due to implementation of water conservation measures (which are further detailed in Section 9) during a now concluded period of drought conditions, the economic slowdown, and recent above average precipitation. Actual water deliveries from 2005 are included below in Table 5.

TABLE 5
WATER DELIVERIES - ACTUAL, 2005

Water Use Sectors	2005 Metered	
	# of Accounts	Deliveries (AF)
Single-Family Residential	8,450	4,696
Multi-Family Residential	106	478
Commercial	333	566
Industrial	0	0
Public Agency/Institutional	67	221
Landscape	17	402
Agricultural	334	3,781
General Other	100	34
TOTAL	9,407	10,179

Current water deliveries from 2010 are presented in Table 6.

TABLE 6
WATER DELIVERIES - ACTUAL, 2010

Water Use Sectors	2010 Metered	
	# of Accounts	Deliveries (AF)
Single-Family Residential	8,400	3,241
Multi-Family Residential	169	511
Commercial	421	326
Industrial	0	0
Public Agency/Institutional	75	198
Landscape	13	4
Agricultural	301	1,563
General Other	94	13
TOTAL	9,473	5,856

4.2 PROJECTED WATER DELIVERIES

The District's current demand for water falls into two basic categories: municipal and industrial (M&I), and agricultural. M&I uses constitute about 73% of the District's water consumption and agricultural water, used mostly for irrigating groves and crops, accounts for the remaining demand. Projected demand through 2035 is expected to maintain this balance. The Water Authority has used its CWA-MAIN model to prepare projections of future water use within the District's service area. The CWA-MAIN model uses input data for population, demographics, climate, economic forecasts, and other variables to estimate future water use. Agricultural demands are developed by the Water Authority in conjunction with its member agencies, SANDAG, County of San Diego Agricultural Weights and Measures, and the California Avocado Commission. The Water Authority's agricultural demand projections include projected demands under the Water Authority's Special Agricultural Water Rate (SAWR) program and agricultural demands serviced by water purchased at the M&I rate [3]. The District has elected to use these forecasts of future water use to maintain consistency with planning work by the Water Authority. Table 7 presents projected District water deliveries for 2015.

TABLE 7
WATER DELIVERIES – PROJECTED 2015

Water Use Sectors	2015 Metered	
	# of Accounts	Deliveries ^a (AF)
Single-Family Residential	8,913	6,206
Multi-Family Residential	179	978
Commercial	447	624
Industrial	0	0
Public Agency/Institutional	80	379
Landscape	14	8
Agricultural	319	2,993
General Other	100	25
TOTAL	10,051	11,213

^a Source: Water Authority 2010 UWMP [3]

Table 8 presents projected District water deliveries for 2020.

TABLE 8
WATER DELIVERIES – PROJECTED 2020

Water Use Sectors	2020 Metered	
	# of Accounts	Deliveries (AF)
Single-Family Residential	9,350	5,989
Multi-Family Residential	188	944
Commercial	469	602
Industrial	0	0
Public Agency/Institutional	83	366
Landscape	14	7
Agricultural	335	2,888
General Other	105	24
TOTAL	10,544	10,821

^a Source: Water Authority 2010 UWMP [3]

Projected water deliveries for years 2025, 2030 and 2035 are provided in Table 9.

TABLE 9
WATER DELIVERIES – PROJECTED 2025, 2030, AND 2035

Water Use Sectors	2025 Metered		2030 Metered		2035 Metered	
	# of Accounts	Deliveries (AF)	# of Accounts	Deliveries (AF)	# of Accounts	Deliveries (AF)
Single-Family Residential	10,075	6,451	10,688	6,847	11,025	7,061
Multi-Family Residential	203	1,017	215	1,080	222	1,113
Commercial	505	649	536	689	553	710
Industrial	0	0	0	0	0	0
Public Agency/Institutional	90	394	95	418	98	431
Landscape	16	8	17	8	17	9
Agricultural	361	3,111	383	3,302	395	3,405
General Other	113	26	120	27	123	28
TOTAL	11,362	11,656	12,053	12,372	12,433	12,758

^a Source: Water Authority 2010 UWMP [3]

4.2.1 Sales to Other Water Agencies

The District does not currently participate in water sales to other agencies and does not project to do so through the planning period covered by this UWMP.

4.2.2 Additional Water Uses and Losses

Additional water uses by the District are summarized in Table 10. Further discussion on the District's recycled water use is provided in Section 10. System losses average 6-percent, below the American Water Works Association standard of 12-percent.

TABLE 10
ADDITIONAL WATER USES AND LOSSES (AF/YR)

Water Use	2005	2010	2015	2020	2025	2030	2035
Recycled Water	705	729	815	815	815	815	815
System Losses	545	545	545	545	545	545	545

4.2.3 Total Water Use

The District's total water use, combining total water deliveries, sales to other agencies and the additional water uses, for 2005 through 2035 is presented in Table 11.

TABLE 11
TOTAL WATER USE (AF/YR)

Water Use	2005	2010	2015	2020	2025	2030	2035
Total Water Deliveries	10,179	5,856	11,213	10,821	11,656	12,372	12,758
Sales to Other Water Agencies	0	0	0	0	0	0	0
Additional Water Uses and Losses	1,250	1,274	1,360	1,360	1,360	1,360	1,360
TOTAL	11,429	7,130	12,573	12,181	13,016	13,732	14,118

4.3 LOW INCOME HOUSING WATER DEMAND

The projected water demand for low income housing as required by the UWMP Act is described in this section. A low income household is defined as a household whose income is 80 percent or less of the median income in the District's service area. The number of low income households in the District's service area was forecasted using SANDAG's 2050 Regional Growth Forecast. Water demands for these units are included in future water demand projections for single family and multi-family homes listed in the Tables 7-9.

TABLE 12
LOW INCOME HOUSING WATER DEMAND (2015-2035)

Customer Type	Water Demand Totals (AF)				
	2015	2020	2025	2030	2035
Total Low Income Housing Water Demand ¹	208	203	191	181	175

¹SANDAG, 2050 Regional Growth Forecast (data extracted on: 05/2010)

4.4 WATER DEMAND PROJECTIONS

Projected District water demand from the Water Authority under normal weather conditions is presented in Table 13. Projected demand is based on the Water Authority's CWA-MAIN model. Recycled water demands are not included in these projections.

TABLE 13
DISTRICT DEMAND PROJECTIONS PROVIDED TO WHOLESALE SUPPLIER

Wholesaler	Contracted Volume	2010	2015	2020	2025	2030	2035
Water Authority	N/A	5,856	11,213	10,821	11,656	12,372	12,758

SECTION 5 SBx7-7 WATER USE TARGETS

In February 2008, Governor Arnold Schwarzenegger introduced a plan for improving the Sacramento-San Joaquin Delta, a component of which is to achieve a 20-percent reduction in per capita water use statewide by the year 2020. In November 2009, Senate Bill 7-7 (SBx7-7) was signed into law, addressing urban and agricultural water conservation. SBx7-7 requires water suppliers to calculate baseline per capita water use and per capita water use targets for 2015 and 2020 in the 2010 UWMP.

The following methodology was used to determine SBx7-7 compliance goals:

1. Determine the District's Baseline Per Capita Water Use (described in Section 5.1 and Table 14)
2. Determine the 2020 Per Capita Water Use Target by one of four methods (described in Section 5.2)
3. Confirm 2020 Per Capita Water Use Target against target based on minimum amount of conservation (described in Section 5.3 and Table 15)
4. Determine the 2015 Per Capita Water Use Target (described in Section 5.4)

5.1 BASELINE PER CAPITA WATER USE

The determination of baseline per capita water use for the District is summarized in Table 14. The baseline use is the average annual per capita water use calculated over a period of ten years ending between 2004 and 2010. The ten year baseline was used as recycled water deliveries by the District did not meet 10-percent of the total water deliveries. As seen in Table 14, the District's baseline per capita water use is 317-gpcd.

TABLE 14
 BASELINE PER CAPITA WATER USE – RAMONA MUNICIPAL WATER DISTRICT

Year	Total Water Use ^a , AF/YR	Total Water Use ^a , MG/yr	Population ^b	Annual Per Capita Water Use ^c , gpcd	SBx7-7 Baseline per Capita Water Use Target ^d , gpcd
1995	5,173	1,686	24,067	192	--
1996	8,044	2,621	24,608	292	--
1997	9,446	3,078	25,162	335	--
1998	5,345	1,742	25,728	185	--
1999	6,101	1,988	26,307	207	--
2000	9,757	3,179	26,898	324	--
2001	10,801	3,519	27,504	351	--
2002	12,362	4,028	28,122	392	--
2003	10,944	3,566	28,755	340	--
2004	11,601	3,780	29,402	352	297
2005	10,179	3,317	30,063	302	308
2006	11,361	3,702	30,739	330	312
2007	11,890	3,874	31,431	338	312
2008	8,425	2,745	32,138	234	317
2009	7,432	2,422	32,861	202	316
2010	5,856	1,908	33,600	156	300
Baseline Per Capita Water Use, gpcd:					317

^a The District Total Water Use is based on total production during a given year.

^b District population as provided by the U.S. Census Bureau and calculated average population growth rates.

^c Annual per capita water use is the total water use divided by the population.

^d The SB7x7 baseline per capita water use is the ten-year average of annual per capita water use ending in a given year.

5.2 2020 PER CAPITA WATER USE TARGET

The per capita water use target, which must be met by 2020, must be calculated using one of four methods described in the Guidebook to Assist Urban Water Suppliers to prepare a 2010 Urban Water Management Plan (UWMP Guidebook). The District evaluated all four methods and determined that Methods 1 and 3 are the most appropriate methods to determine the 2020 Per Capita Water Use Target. It is in the District's interest to use the highest target calculated by the four methods in order to minimize impacts to the water users of the District.

The District used Methods 1 and 3 to determine potential per capita water use targets. Using Method 1, the per capita water use target is 80-percent of the baseline per capita water use. The District's per capita water use target would be 254-gpcd using Method 1.

Using Method 3, the per capita water use target is 95 percent of the applicable state hydrologic region target as defined in the draft 20x2020 Water Conservation Plan. The District is located in the South Coast hydrologic region, which has a hydrologic region target of 149-gpcd. The District's per capita water use target, based on Method 3, is therefore 142-gpcd.

The 2020 Per Capita Water Use Target of 254-gpcd calculated by Method 1 is the preferred target.

5.3 CONFIRM 2020 PER CAPITA WATER USE TARGET

SBx7-7 requires the District to achieve a minimum amount of conservation regardless of the 2020 Per Capita Water Use Targets calculated by the four methods. This minimum amount of conservation is described in Section 10608.22 of SBx7-7. A water supplier may not use a per capita water use target greater than the water use target described in Section 10608.22.

This maximum water use target is determined using a baseline per capita water use calculated by averaging per capita water use over a five-year period ending between 2007 and 2010. The maximum per capita water use target is 95-percent of this baseline per capita water use. Note that the baseline per capita water use used to determine the maximum per capita water use target is not the same baseline per capita water use used to determine the Method 1 per capita water use target as described in Section 5.2 and Table 14. The maximum per capita water use target calculation for the District is summarized in Table 15.

TABLE 15
MAXIMUM PER CAPITA WATER USE TARGET

Year	Annual Per Capital Water Use ^a , gpcd	SBx7-7 Baseline Per Capita Water Use ^b , gpcd
2003	340	--
2004	352	--
2005	302	--
2006	330	--
2007	338	332
2008	234	311
2009	202	281
2010	156	252
Baseline Per Capita Water Use, gpcd:		332
Maximum Per Capita Water Use Target, gpcd:		316

^a Annual per capita water use is the total water use divided by the population, from Table 14.

^b The SB7x7 baseline per capita water use is the five-year average of annual per capita water use ending in a given year. Note that this is different than the baseline per capita water use calculated in Table 14 to determine the Method 1 per capita water use goal.

As seen in Table 15, the baseline per capita water use associated with the maximum per capita water use target is 332-gpcd, which corresponds to a maximum per capita water use target of 316-gpcd (95-percent of 332-gpcd). Because the maximum per capita water use target is greater than the per capita water use target calculated for 2020 using Method 1 (254-gpcd), the District is free to use the Method 1 calculated per capita water use target.

5.4 2015 INTERIM PER CAPITA WATER USE TARGET

The interim per capita water use target, which must be met in 2015, is defined as the midpoint between the baseline per capita water use and the 2020 per capita water use target. The District's 2015 interim per capita water use target is 285-gpcd.

5.5 SB7x7 IMPLEMENTATION PLAN

As described above and summarized in Table 16, the District's baseline per capita water use is 317-gpcd, the 2015 interim per capita water use target is 285-gpcd, and the 2020 per capita water

use target is 254-gpcd. Recent per capita water use in the District has been relatively low due to the District's water conservation efforts. The District expects to be able to meet the per capita water use targets through continued water conservation. The per capita water use in the District is expected to decrease as new development is constructed due to more stringent building requirements such as mandatory measures of the 2010 California Green Building Standards Code. The District also plans to continue water conservation education and measures described in Section 9.

TABLE 16
SUMMARY OF SBX7-7 BASELINE AND TARGETS

Parameter	Value
Baseline Per Capita Water Use	317 gpcd
2015 Interim Per Capita Water Use	285 gpcd
2020 Per Capita Water Use ^a	254 gpcd

^a 2020 Per Capita Water Use as determined by SBx7-7 Section 10608.20(b)(1) (Method 1 2020 Target)

SECTION 6 WATER SUPPLY SOURCES

This section contains a discussion about existing and planned sources of water including imported water, groundwater, surface water, and recycled water.

6.1 IMPORTED WATER

The District purchases treated and untreated water from the Water Authority, which purchases water from Metropolitan. Metropolitan imports water from the Colorado River Aqueduct (CRA) and the facilities of the State Water Project (SWP). Metropolitan's water supplies are further detailed in the Water Authority's 2010 UWMP. In recent years the District is 99-percent dependent on Water Authority water and its efforts to develop and manage a diverse and reliable supply for the region.

6.1.1 Metropolitan Water District

Metropolitan was formed in 1928 to develop, store, and distribute supplemental water in Southern California for domestic and municipal purposes. Metropolitan supplies water to approximately 19 million people in a service area that includes portions of Ventura, Los Angeles, Orange, San Bernardino, Riverside, and San Diego counties. The Water Authority is one of 26 Metropolitan member agencies and is the largest in terms of purchases, purchasing 331,825-AF in fiscal year 2010 [3].

Metropolitan obtains its water from two sources: the Colorado River Aqueduct (CRA), which it owns and operates, and the State Water Project (SWP), with which Metropolitan has a water supply contract through the state of California. Additional discussion of Metropolitan and its water supply sources is provided in Section 6 of the Water Authority's 2010 UWMP.

6.1.2 Water Authority

The District is a member agency of the Water Authority. The Water Authority's 24 member agencies purchase water for retail distribution within their service territories. The Water Authority was established in 1943 to provide supplemental water supply to the San Diego region. The Water Authority is the county's chief source of water, supplying from 75 to 95 percent of the region's needs depending upon weather conditions and yield from surface, recycled, and groundwater projects [3].

After experiencing severe shortages from Metropolitan during the 1987-1992 drought, the Water Authority began aggressively pursuing actions to diversify the region's supply sources by developing water supplies independent of Metropolitan. The Water Authority's 2010 UWMP provides additional information about these projects which include: an agreement with the Imperial Irrigation District to transfer conserved Colorado River water, up to 200,000-AF by the year 2021, to the Water Authority; lining of the All-American Canal and the Coachella Canal to provide up to 77,700-AF/YR of conserved Colorado River water to the Water Authority; and the Carlsbad Seawater Desalination Project which when completed is expected to provide a highly reliable local supply of 56,000-AF/YR to the region [3].

The Water Authority's 2010 UWMP also provides information on the local resources being developed and managed by its member agencies, which include surface water, groundwater, and recycled water, as well as future seawater desalination projects.

The District's sources of treated and untreated water from the Water Authority are the Poway Pump Stations and pipeline discussed in Section 3.2. Existing and planned supplies from the Water Authority are presented in Table 17.

TABLE 17
WHOLESALE SUPPLIES – EXISTING AND PLANNED SOURCES OF WATER

Wholesaler	Contracted Volume	2015	2020	2025	2030	2035
Water Authority	N/A	11,213	10,821	11,656	12,372	12,758

6.2 SURFACE WATER

There are 25 surface reservoirs with a total capacity of 593,490-AF located in the Water Authority's service area. Figure 2 shows the location of these reservoirs. Additional detail on these reservoirs is available in the Water Authority's 2010 UWMP.

The District has two surface storage reservoirs available for use, Lake Ramona and Lake Sutherland. Storage capacities of the two reservoirs are presented in Table 18. Lake Ramona is owned by the District and is filled with untreated water purchased from the Water Authority. Minimal amounts of surface water runoff enter the lake. Lake Ramona is used to supply untreated irrigation water to customers in the agricultural area on the northwest end of the District.

TABLE 18
SURFACE STORAGE RESERVOIRS UTILIZED BY RAMONA MUNICIPAL WATER DISTRICT

Reservoir	Agency	Storage Capacity, AF
Lake Ramona	Ramona Municipal Water District	12,200 ^a
Lake Sutherland	City of San Diego	29,685

^a Capacity at water depth of 228-feet; maximum capacity is 18,200-AF

Lake Sutherland is owned by the City of San Diego; local runoff provides the lake's primary source of untreated water. The District's contract with the City of San Diego provides the District with up to 10,000-AF/YR of untreated water; additional water may also be supplied through an exchange of Water Authority water – up to 10,000-AF/YR. When the BWTP is online, Lake Sutherland supplies the plant's source of untreated water through a connection to the Sutherland Aqueduct which connects Lake Sutherland with San Vicente Reservoir. Additional discussion of the BWTP is provided in Section 6.7.

FIGURE 2
SURFACE STORAGE RESERVOIRS WITHIN WATER AUTHORITY SERVICE AREA [3]



6.3 GROUNDWATER

The District owns three wells with a total capacity of 330-gpm and a potential yield of 200-AF/YR. The District wells are currently not used due to high nitrate concentrations and would require recertification prior to being placed back in service. Groundwater from private wells is used by local landowners. Because the District does not rely on any groundwater for its water supply, the District does not prepare a Groundwater Management Plan.

Due to issues that limit District involvement in groundwater development, which include economic and financial considerations, legal, institutional, regulatory, environmental, and water quality issues, the District has not moved forward with plans to utilize groundwater with its service area. The Santa Maria basin lies within a major portion of the District's service area. The Santa Maria basin has numerous private wells and water rights, which are a major concern that would need to be resolved before groundwater projects could move forward.

6.4 TRANSFER AND EXCHANGE OPPORTUNITIES

While the District currently relies on water purchased from the Water Authority, if the District's BWTP is operational the District will have the option of obtaining untreated water from the City of San Diego's Lake Sutherland as detailed in Section 6.2. This water is transferred to the District through the exchange of purchased Water Authority water to the City of San Diego. Details of this transfer are presented in Table 19.

TABLE 19
TRANSFER AND EXCHANGE OPPORTUNITIES

Transfer Agency	Transfer or Exchange	Short Term or Long Term	Proposed Volume, AF/YR
City of San Diego	Exchange	Long Term	10,000
Total			10,000

6.5 DESALINATED WATER

Development of desalinated water sources is not included in the District's planning horizon due to the prohibitive costs associated with desalination when compared to supplying the District's demands with water purchased from the Water Authority. The Water Authority is in the process of developing the Carlsbad Desalination Project which when completed will provide a highly reliable local supply of 56,000-AF/YR for the region and its member agencies. Additional information of this project is included in Section 4.4 of the Water Authority's 2010 UWMP.

6.6 RECYCLED WATER

Recycled water which meets Title 22 standards is produced by two wastewater treatment plants operated by the District. The Santa Maria Water Reclamation Plant (SMWRP) produces an effluent which meets secondary treatment standards. This treated effluent is then conveyed to the tertiary treatment facilities located at the Rangeland Road treatment site. The San Vicente Water Reclamation Plant (SVWRP) produces secondary and tertiary level treated effluent. The District currently has a recycled water use of 729-AF/YR. Additional discussion of the District's recycled water system is provided in Section 10.

6.7 FUTURE WATER PROJECTS

As previously mentioned, the District's BWTP is a conventional water treatment plant originally constructed in 1974. Several improvements have been implemented since the original construction, including the additions of an inline static mixer (1978), a splitter box (1982), filter-to-waste piping (1998), a chlorine scrubber system (1998), additional sludge drying beds and sludge pumps, and modifications to the chemical feed room.

The BWTP is currently off-line and was last operated in 2007, leaving the District dependent on the Water Authority to meet potable water demands. The District currently has no plans for placing BWTP back in service as a source of potable water. As mentioned in Section 6.2, if placed on-line, BWTP would be supplied with untreated water from the City of San Diego's Lake Sutherland reservoir.

6.8 PROJECTED WATER SUPPLY

The District's current and projected water supplies during normal water years are provided in Table 20. The District's projected water supply from the Water Authority is based on the Water Authority's CWA-MAIN model as discussed in the Water Authority's 2010 UWMP.

TABLE 20
WATER SUPPLIES - CURRENT AND PROJECTED (AF)

Water Supply Sources	Wholesaler Supplied Volume	2010	2015	2020	2025	2030	2035
Water Authority	Yes	5,856	11,213	10,821	11,656	12,372	12,758
Recycled Water		729	815	815	815	815	815
Total		6,585	12,028	11,636	12,471	13,187	13,573

6.9 QUALITY OF WATER SUPPLY

The UWMP Act requires the 2010 UWMP include information, to the extent practicable, on the quality of existing water supply sources and the manner in which water quality affects water supply reliability. The District currently imports its entire potable water supply from the Water Authority and based on the Water Authority's 2010 UWMP no changes to water supply reliability as a result of water quality are expected for the next 20 years. Additional information on the Water Authority's water supply quality is detailed in Section 7 of the Water Authority's 2010 UWMP.

SECTION 7 WATER SUPPLY RELIABILITY

As stated in the UWMP Act, every urban water supplier shall include, as part of its plan, an assessment of the reliability of its water supply. The water supply and demand assessment must compare the total projected water use with the expected water supply over the next 20 years in 5-year increments. This reliability assessment is required for normal single dry-year and multiple dry water years.

7.1 WATER SUPPLY RELIABILITY ASSESMENT

The District currently imports 100-percent of its water supply from the Water Authority, therefore the assessment contained in the District's 2010 UWMP projects reliability through the next 25 years based on the Water Authority draft 2010 UWMP. This section presents a summary of the water demands and supplies available to the Water Authority and in turn to the District. The Water Authority's basis of water year data for estimating demands is provided in Table 21.

TABLE 21
BASIS OF WATER YEAR DATA

Water Year Type	Base Year(s) ^a
Average Water Year	1960-2008
Single-Dry Water Year	1990
Multiple-Dry Water Year	1990-1992

^a Source: Water Authority 2010 UWMP [3]

7.1.1 Water Authority Normal Year Assessment

Table 9-2 in the Water Authority's 2010 UWMP shows the normal year assessment, summarizing the total water demands for the Water Authority through the year 2035 along with the supplies necessary to meet demands under normal conditions. If Metropolitan, the Water Authority and member agency 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 normal year through 2035 [3].

7.1.2 Water Authority Dry Water Year Assessment

The UWMP Act also requires an assessment to compare supply and demands under single dry and multiple dry water years over the next 20 years, in five-year increments. The single dry-year assessment is presented in Table 9-3 of the Water Authority's 2010 UWMP. The projected groundwater and surface water yields are based on historic 1990 supplies during the 1987-1992 drought years. The supplies available from projected recycling and groundwater recovery projects are assumed to experience little, if any, reduction in a dry-year. The Water Authority's existing and planned supplies are detailed in Section 4 of the Water Authority's 2010 UWMP. For this single dry-year assessment, it was assumed that Metropolitan would have adequate supplies in storage and would not be allocating supplies. With the previous years leading up to the single dry-year being wet or average hydrologic conditions, Metropolitan should have adequate supplies in storage to cover potential shortfalls in core supplies and would not need to allocate [3].

7.1.3 Water Authority Multiple Dry Water Year Assessment

Tables 9-3 through 9-6 in the Water Authority's 2010 UWMP show the multiple dry water year assessments in five-year increments. The member agencies' surface and groundwater yields shown in these tables are reflective of supplies available during the 1987-92 drought, in years 1990, 1991 and 1992. The Water Authority supplies consist of yield from the IID transfer, canal lining projects, and Carlsbad Seawater Desalination project.

For the multi dry-year reliability analysis, the conservative planning assumption is that Metropolitan will be allocating supplies to its member agencies. By assuming allocations in this reliability assessment, it allows the Water Authority to analyze how storage supplies could be utilized and the likelihood of shortages. Currently Metropolitan allocates supplies through its Water Supply Allocation Plan. Under the specific parameters assumed in the multi dry-year analysis, the Water Authority has determined that some level of shortage could potentially be experienced. Under this scenario the items discussed in the Water Authority's and District's shortage contingency analyses, included as Section 8 of this UWMP, would be implemented as necessary [3].

7.1.4 Factors Resulting in Inconsistency of Supply

The District is reliant on the Water Authority's efforts to develop actions to diversify the region's supply sources. The Water Authority's documentation on the existing and projected supply sources being implemented to ensure consistency of their wholesale water supply are provided in the Water Authority's 2010 UWMP. Factors that could result in inconsistency of Water Authority supply to the District are presented in Table 22.

TABLE 22
FACTORS RESULTING IN INCONSISTENCY OF SUPPLY

Water Supply Sources	Specific Source Name	Limitation Quantification	Legal & Environmental	Water Quality	Climatic
Water Authority			Current supply from the Delta is occasionally inconsistent due to legal and environmental decisions. Future supply may not be consistent due to delays in construction, legal rulings, or environmental decisions. Legal decisions regarding the Quantification Settlement Agreement could reduce supplies from the Colorado River	None	Drought and climate change could result in reduction of imported water supply. Colorado River supply may be reduced due to extended drought period.
Recycled Water			None	None	None

7.1.5 Supply Reliability of Current Water Sources

Supply reliability of the District's water sources is provided in Table 23. The Water Authority's CWA-MAIN model projects that water demands are expected to increase during dry year periods. As discussed in this section, the Water Authority's normal year, dry water year, and

multiple dry water year assessments show that the Water Authority would be able to supply the District and its other member agencies during these periods.

TABLE 23
SUPPLY RELIABILITY - CURRENT SOURCES (AF)

Water Supply Sources	Normal Water	Single Dry Water	Multiple Dry Water Year Supply		
	Year Supply	Year Supply	Year 2012	Year 2013	Year 2014
	Year 2010	Year 2011			
Water Authority ^a	5,856	6,972	7,999	9,070	10,141
Recycled Water	729	746	764	781	798
Groundwater	0	0	0	0	0
Total	6,585	7,718	8,763	9,851	10,939
Percent of Normal		117.2%	133.0%	149.6%	166.1%

^a Source: Water Authority 2010 UWMP [3]

7.2 PROJECTED SUPPLIES AND DEMANDS

As previously stated the Water Authority has determined that it will be able to meet the District's water demands during normal year, single dry year and multiple dry year conditions through 2035. Projected District demands are based on the Water Authority's CWA-MAIN projections and included SBx7-7 water conservation goals as determined in Section 5. Recycled water supply is considered a "drought-proof" supply and is not expected to reduce during dry year periods. A supply and demand comparison for normal water years is presented as Table 24.

TABLE 24
SUPPLY AND DEMAND COMPARISON - NORMAL YEAR (AF)

	2015	2020	2025	2030	2035
Supply Totals ^a	12,028	11,636	12,471	13,187	13,573
Demand Totals ^a	12,028	11,636	12,471	13,187	13,573
Difference	0	0	0	0	0
Difference as % of Supply	0%	0%	0%	0%	0%
Difference as % of Demand	0%	0%	0%	0%	0%

^a Source: Water Authority 2010 UWMP [3]

Projected water supplies compared to demands for single dry years are presented in Table 25.

TABLE 25
SUPPLY AND DEMAND COMPARISON – SINGLE DRY YEAR (AF)

	2015	2020	2025	2030	2035
Supply Totals ^a	12,028	11,636	12,471	13,187	13,573
Demand Totals ^a	12,028	11,636	12,471	13,187	13,573
Difference	0	0	0	0	0
Difference as % of Supply	0%	0%	0%	0%	0%
Difference as % of Demand	0%	0%	0%	0%	0%

^a Source: Water Authority 2010 UWMP [3]

Projected water supplies compared to demands for multiple dry years are presented in Table 26.

TABLE 26
SUPPLY AND DEMAND COMPARISON – MULTIPLE DRY YEAR EVENTS (AF)

		2015	2020	2025	2030	2035
Multiple Dry Year First Year Supply	Supply Totals ^a	12,028	11,636	12,471	13,187	13,573
	Demand Totals ^a	12,028	11,636	12,471	13,187	13,573
	Difference	0	0	0	0	0
	Difference as % of Supply	0%	0%	0%	0%	0%
	Difference as % of Demand	0%	0%	0%	0%	0%
Multiple Dry Year Second Year Supply	Supply Totals ^a	11,950	11,803	12,614	13,264	13,650
	Demand Totals ^a	11,950	11,803	12,614	13,264	13,650
	Difference	0	0	0	0	0
	Difference as % of Supply	0%	0%	0%	0%	0%
	Difference as % of Demand	0%	0%	0%	0%	0%
Multiple Dry Year Third Year Supply	Supply Totals ^a	11,871	11,970	12,757	13,341	13,727
	Demand Totals ^a	11,871	11,970	12,757	13,341	13,727
	Difference	0	0	0	0	0
	Difference as % of Supply	0%	0%	0%	0%	0%
	Difference as % of Demand	0%	0%	0%	0%	0%

^a Source: Water Authority 2010 UWMP [3]

SECTION 8 SHORTAGE CONTINGENCY ANALYSIS

The UWMP Act requires urban water agencies conduct a water shortage contingency analysis as part of their 2010 UWMP. This section addresses District's analysis of a catastrophic shortage situation and drought management plan that is based on the draft Water Authority 2010 UWMP and includes a summary of the Water Authority analysis.

8.1 CATASTROPHIC WATER SHORTAGE

A catastrophic water shortage occurs when a disaster, such as an earthquake, results in insufficient available water to meet the region's needs or eliminates access to imported water supplies. These events are typically regional and require close coordination between The District and the Water Authority. The following section describes the District's Emergency Response Plan (ERP) and summarizes the Water Authority's Integrated Contingency Plan (ICP) and Emergency Storage Project (ESP).

8.1.1 Emergency Response Plan

Interruption and/or damage to the water supply system and/or the sewage system will require immediate emergency response by District staff to direct repairs of the system, and restore essential services to the community.

The purpose of the District's ERP manual is to provide a response plan to conduct and manage emergency response operations of the District in the event of such interruption and/or damage. The guidelines set forth in the ERP address the immediate phase of emergency operations and are based on the assumed impacts of a worst-case scenario. Minor emergencies are those incidents, which generally affect only a small number of customers, last less than one day, and are managed by District personnel. Major emergencies and disasters such as floods, wars, drinking water contamination, earthquakes, droughts, terrorist acts, etc., may affect large service areas beyond normal District capabilities.

The ERP can be considered multi-hazard, as most of the emergency response functions and responsibilities are standard regardless of the nature or the intensity of the emergency. The ERP plan does not attempt to describe in detail every step necessary to handle a particular emergency, but relies upon the individual expertise of District staff, under the direction of District management.

The ERP is integrated with the Water Authority ICP, the County of San Diego ERP, the Unified San Diego County Emergency Services Organization, and the procedures for emergency response and recovery for the State of California and Federal Emergency Management Agency.

The ERP includes:

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

- Multi-agency and multi-jurisdictional coordination, particularly between the District and Water Authority;
- Emergency staffing, management, and organization required to assist in mitigating any significant emergency or disaster;
- Mutual Aid Agreements and covenants that outline the terms and conditions under which mutual aid assistance will be provided;
- Pre-emergency planning and emergency operations procedures.

In addition, the ERP Manual provides a step-by-step approach to emergency response planning by providing action checklists, resource and information lists, personnel rosters, and listings of established policies and procedures.

8.1.2 Water Authority Emergency Storage Project

In 1998, the Water Authority's Board authorized implementation of the ESP to reduce the risk of potential catastrophic damage that could result from a prolonged interruption of imported water due to earthquake, drought, or other disasters. The ESP is a system of reservoirs, pipelines, and other facilities located throughout San Diego County that will work together to store and move water around the county in the event of a natural disaster. When completed, the ESP will provide 90,100-AF of stored water for emergency purposes to meet the county's needs through at least 2030. The Water Authority Board of Directors may also authorize that supplies from the ESP be used in a prolonged drought or other water shortage situation where imported and local supplies do not meet 75-percent of the Water Authority's member agencies Municipal and Industrial (M&I) demands [3].

In sizing the ESP, the Water Authority assumed a 75-percent level of service to all Water Authority member agencies during an outage and full implementation of the water conservation best management practices. The following steps from the Water Authority's August 2002 Emergency Water Delivery Plans show the methodology for calculating the allocation of ESP supplies to member agencies in a prolonged outage situation without imported supplies:

1. Estimate the duration of the emergency (i.e. time needed to repair damaged pipelines).
2. Determine each member agency's net demand during the emergency period by adding M&I water demands and agricultural water demands and then subtracting recycled water supplies.
3. Determine each member agency's useable local supplies during the emergency period (local supplies include surface water and groundwater).
4. Determine each member agency's level of service based on usable local supplies and net demand.
5. Adjust the allocation of ESP supplies based on a member agency's participation in an interruptible agricultural program (e.g. Metropolitan Interim Agricultural Water Program or Water Authority Special Agricultural Water Rate). Interruptible agricultural program customers will be required to take a reduction in deliveries during a water shortage due to an emergency at double the system-wide reduction up to a maximum of 90-percent.

Water not delivered to interruptible agricultural program customers will be redistributed to member agencies based on the “system-wide” level of service targets.

6. Determine the amount of local supplies that can be transferred between member agencies, with transfers occurring only after a member agency has a level of service greater than 75-percent based on their usable local supplies.
7. Allocate delivery of useable ESP storage supplies along with available Water Authority and Metropolitan supplies to member agencies with the goal of equalizing the level of service among the member agencies.

8.2 DROUGHT MANAGEMENT PLANNING

Following the major drought in California of 1987 - 1992, which led to severe water supply shortages throughout the state, the Water Authority and its member agencies aggressively developed plans to minimize the impact of potential shortages. In 2006, the Water Authority Board of Directors adopted the Water Shortage and Drought Response Plan (WSDRP), to serve as a comprehensive plan in the event that the region faced supply shortages due to drought or other water shortage conditions [3].

8.2.1 Water Authority Water Shortage and Drought Response Plan

The WSDRP was developed by the Water Authority in coordination with its member agencies to provide a balanced, flexible, systematic approach to identifying regional actions necessary to reduce the impacts from shortages. It includes all aspects of drought planning, from steps to avoid rationing, to drought response stages, allocation methodology, pricing, tracking actual reductions in water use, and a communication strategy. Multiple actions are identified to manage shortage situations, including both supply augmentation measures and demand reductions up to 50-percent in water supply. Conservation savings is an essential component of meeting the need for water in a time when available supplies are limited.

The UWMP Act requires information on the stages of action to be undertaken in response to water supply shortages, including up to a 50-percent reduction in water supply. To meet the requirements, the District is dependent on the Water Authority. The Water Authority, with input from the member agencies, developed a regional drought response matrix. The matrix, presented in Table 27, summarizes the three stages: voluntary supply management; supply enhancement; and mandatory cutbacks including a supply allocation methodology; detailed in the WSDRP.

TABLE 27
WATER AUTHORITY DROUGHT RESPONSE MATRIX - FIRM DEMANDS

Potential Water Authority Drought Actions	Stages		
	Voluntary	Supply Enhancement	Mandatory Cutbacks
Ongoing BMP implementation	X	X	X
Communication strategy	X	X	X
Monitoring supply conditions and storage levels	X	X	X
Call for voluntary conservation	X	X	X
Draw from Water Authority carryover storage	X	X	X
Secure transfer option contracts	X	X	X
Buy phase 1 spot transfers (cost at or below Tier 2 rate)		X	X
Call transfer options		X	X
Buy phase 2 spot transfers (cost at or below Tier 2 rate)		X	X
Implement allocation methodology			X
Utilized ESP Supplies			X

Source: Water Authority 2010 UWMP [3]

Additional details of the WSDRP are provided in Section 11 of the Water Authority's 2010 UWMP.

8.2.2 District Drought Response Conservation Program

On May 12, 2009 The District's Board of Directors adopted the District's Drought Response Conservation Program, included in **Appendix C**. The Drought Conservation Program establishes regulations to be implemented during times of declared water shortages, or declared water shortage emergencies. It establishes four levels of drought response actions ("Drought Response Levels") to be implemented in times of shortage, with increasing restrictions on water use in response to worsening drought conditions and decreasing available supplies. Drought Response Level 1 drought condition response measures are voluntary and will be reinforced through local and regional public education and awareness measures that may be funded in part by the District. During Drought Response Levels 2 through 4, all conservation measures and water-use restrictions are mandatory and become increasingly restrictive in order to attain escalating conservation goals. Violations of this Chapter are subject to criminal, civil, and administrative penalties and remedies specified in this District's legislative code and as provided by law. Provisions of the District's water conservation program are summarized in Tables 28-30.

TABLE 28
WATER SHORTAGE CONTINGENCY – RATIONING STAGES
TO ADDRESS WATER SUPPLY SHORTAGES

Stage No.	Water Supply Conditions	% Shortage
Drought Response Level 1 – Drought Watch Condition	A Level 1 condition applies 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. The General Manager may declare the existence of a Drought Response Level 1 and take action to implement the Level 1 conservation practices identified in the Drought Response Conservation Program.	Up to 10% Voluntary Restrictions
Drought Response Level 2 - Drought Alert Condition	A Drought Response Level 2 condition is also referred to as a "Drought Alert" condition. A Level 2 condition applies when the Water Authority notifies its member agencies that due to cutbacks caused by drought or other reduction of supplies, a consumer demand reduction of up to twenty percent (20%) is required in order to have sufficient supplies available to meet anticipated demands. The District Board of Directors may declare the existence of a Drought Response Level 2 condition and implement the Level 2 conservation measures identified in the Drought Response Conservation Program.	Up to 20% Mandatory Restrictions
Drought Response Level 3 - Drought Critical Condition	A Drought Response Level 3 condition is also referred to as a "Drought Critical" condition. A Level 3 condition applies when the Water Authority notifies its member agencies that due to increasing cutbacks caused by drought or other reduction of supplies, a consumer demand reduction of up to forty percent (40%) is required in order to have sufficient supplies available to meet anticipated demands. The District Board of Directors may declare the existence of a Drought Response Level 3 condition and implement the Level 3 conservation measures identified in the Drought Response Conservation Program.	Up to 40% Mandatory Restrictions
Drought Response Level 4- Drought Emergency Condition	A Drought Response Level 4 condition is also referred to as a "Drought Emergency" condition. A Level 4 condition applies 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 forty percent (40%) percent in order for the Authority to have maximum supplies available to meet anticipated demands. Upon declaration by the Authority of a Drought Emergency Condition, the District may declare a Drought Emergency in the manner and on the grounds provided in California Water Code section 350 et seq.	Above 40% Mandatory Restrictions

TABLE 29
WATER SHORTAGE CONTINGENCY – CONSUMPTION REDUCTION
METHODS AND MANDATORY PROHIBITIONS

Examples of Prohibitions	Level when Prohibition Becomes Mandatory	Projected Reduction
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.	Level 2	Up to 10%
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.	Level 2	Up to 10%
Irrigate residential and commercial landscape before 10 a.m. and after 6 p.m. only.	Level 2	Up to 10%
Use a hand-held hose equipped with a positive shut-off nozzle or bucket to water landscaped areas, including trees and shrubs located on residential and commercial properties that are not irrigated by a landscape irrigation system.	Level 2	Up to 10%
Irrigate nursery and commercial grower's 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 or rotating nozzles are used.	Level 2	Up to 10%
Limit residential and commercial landscape irrigation to no more than three (3) assigned days per week on a schedule established by the General Manager.	Level 2	Up to 20%
Limit lawn watering and landscape irrigation using sprinklers to no more than ten minutes per watering station per assigned day.	Level 2	Up to 20%
Repair all leaks within seventy-two (72) hours of notification by the District unless other arrangements are made with the General Manager.	Level 2	Up to 20%
Stop operating ornamental fountains or similar decorative water features unless recycled water is used.	Level 2	Up to 20%
Limit residential and commercial landscape irrigation to no more than two (2) assigned days per week on a schedule established by the General Manager and posted by the District.	Level 3	Up to 40%
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 Drought response level.	Level 3	Up to 40%
Stop washing vehicles except at commercial carwashes that re-circulate water, or by high pressure/low volume wash systems.	Level 3	Up to 40%
Repair all leaks within forty-eight (48) hours of notification by the District unless other arrangements are made with the General Manager.	Level 3	Up to 40%
Stop all landscape irrigation, except crops and landscape products of commercial growers and nurseries and as specified in the DRCP.	Level 4	Above 40%
Repair all water leaks within twenty-four (24) hours of notification by the District unless other arrangements are made with the General Manager.	Level 4	Above 40%

TABLE 30
WATER SHORTAGE CONTINGENCY - PENALTIES AND CHARGES

Penalties or Charges	Stage when Penalty Takes Effect
<p>Following the effective date of the water allocation as established by the District, any person that uses the water in excess of the allocation shall be subject to a penalty equal to two (2) times the District's billing rate for each billing unit of water in excess of the allocation. The penalty for excess water usage shall be cumulative to any other remedy or penalty that may be imposed for violation of the DRCP. Each billing period in which an allocation is exceeded shall count as a separate violation. Subsequent violations that occur during a calendar year shall count cumulatively for the purpose of assessing administrative fines for second violations and additional violations.</p>	Level 3
<p>Following the effective date of the water allocation as established by the District, any person that uses the water in excess of the allocation shall be subject to a penalty equal to three (3) times the District's billing rate for each billing unit of water in excess of the allocation. The penalty for excess water usage shall be cumulative to any other remedy or penalty that may be imposed for violation of the DRCP. Each billing period in which an allocation is exceeded shall count as a separate violation. Subsequent violations that occur during a calendar year shall count cumulatively for the purpose of assessing administrative fines for second violations and additional violations.</p>	Level 4

8.2.3 Revenue Impacts

The District has taken significant steps to reduce potential revenue impacts resulting from fluctuating water sales. In 2002, the District created a Rate Stabilization Fund (RSF) to provide funds that would mitigate the need for rate increases in the event of an unexpected decline in water sales.

On January 1, 2003, the Water Authority implemented a new rate structure that substantially increased the percentage of water revenues generated from fixed charges. This increase replaced the previous variable “postage stamp” rate, which historically generated as much as 80-percent of total annual revenues, with two fixed charges, and one variable rate. These new fixed charges – Customer Service, Infrastructure Access Charge and Storage – are key components to the Water Authority’s future revenue stability [3].

8.3 SUMMARY

The shortage contingency analysis included in this section demonstrates that the District, in conjunction with the Water Authority and its other member agencies, through the District’s ERP and the Water Authority’s ICP, ESP and WSDRP, are taking actions to prepare for and appropriately handle a catastrophic interruption of water supplies to the District’s service area and customers.

SECTION 9 DEMAND MANAGEMENT

Demand management, or water conservation, is frequently the lowest-cost resource available to the District. Water conservation is a critical part of the 2010 UWMP for meeting water supply needs of the Ramona area. The goals of the District water conservation program are to (1) reduce demand for water imported from the Water Authority; (2) demonstrate continued commitment to the Best Management Practices (BMPs) and Agricultural Efficient Water Management Practices (EWMPs); (3) ensure a reliable future water supply; and (4) reduce consumption during periods of high treated-water demand.

9.1 BEST MANAGEMENT PRACTICES

The California Urban Water Conservation Council (CUWCC) was formed in 1991 through a Memorandum of Understanding Regarding Urban Water Conservation in California (MOU). The urban Best Management Practices, or BMPs, for water conservation included in the MOU are intended to reduce California's long-term urban water demands. In 2007, the CUWCC actively pursued updates to the MOU, Bylaws, and BMPs. The CUWCC formed committees to evaluate and update the existing BMPs. Water Authority and member agency staff actively participated on the BMP revision committees to draft revised BMPs. In June 2010, the CUWCC reorganized their 14 BMPs into five categories. The first two categories, utility operations and education, are "Foundational BMPs" considered to be essential water conservation activities that all agencies should implement. The remaining three categories are termed "Programmatic BMPs" and are organized into residential, CII, and landscape categories.

Table 31 provides an overview of the District's progress in the implementation of the BMPs. The District is a signatory to the MOU and submits biennial BMP reports to show compliance with the appropriate BMPs. The District's submitted BMP reports as well as the BMP Coverage Report for 2009-2010 received from the CUWCC are provided in **Appendix D**.

TABLE 31
BEST MANAGEMENT PRACTICES FOR URBAN WATER CONSERVATION IN CALIFORNIA

Previous BMP Number and Name	Revised BMP Number and Category	Conservation Programs	Compliance
1 Residential Water Surveys	3.1 Residential, Programmatic 3.2	Residential survey program	N/A
2 Residential Plumbing Retrofit	3.1 Residential, Programmatic	Showerhead distribution	N/A
3 Distribution System Water Audits	1.2 Utility Operations, Foundational	Annual prescreening system audit equal to or greater than 0.9	YES
4 Metering with Commodity Rates	1.3 Utility Operations, Foundational	All water accounts metered	YES
5 Large Landscape Programs and Incentives	5 Landscape, Programmatic	Commercial landscape incentive program	N/A
6 High-Efficiency Washing Machine (HEW) Rebate Programs	3.3 Residential, Programmatic	Residential HEW voucher program	N/A
7 Public Information Programs	2.1 Education – Public Information Programs, Foundational	<ul style="list-style-type: none"> • Media Coverage • Website • Water Conservation Literature 	YES
8 School Education Programs	2.2 Education – Public Information Programs, Foundational	<ul style="list-style-type: none"> • Classroom Presentations • Student Workbooks • Water Conservation Literature 	YES
9 Commercial, Industrial & Institutional (CII) Water Conservation Programs	4 Commercial, Industrial and Institutional; Programmatic	CII Voucher Program	N/A
10 Wholesale Agency Assistance Programs	1.1.3 Utility Operations, Foundational	Operated by wholesale agency (Water Authority)	N/A
11 Conservation Pricing	1.4 Utility Operations, Foundational	Uniform Rates	YES
12 Water Conservation Coordinator	1.1.1 Utility Operations, Foundational	Water Resources Specialist	YES
13 Water Waste Prohibition	1.1.2 Utility Operations, Foundational	Water Conservation Ordinance (see Appendix C)	YES
14 Residential Ultra-Low-Flush Toilet (ULFT) Replacement Programs	3.4 Residential, Programmatic	Residential ULFT voucher program	N/A

The District, in cooperation with the Water Authority, began implementing its aggressive conservation program in 1990. Some of the early programs to address the BMPs provided financial incentives for retrofitting high-water-use toilets with ultra-low flush models and

distributed low-flow showerheads to consumers. Since the program's inception, the District has provided incentives for the installation of ultra-low flush toilets (ULFTs). In addition, financial incentives have been provided for the installation of residential high-efficiency clothes washers (HEWs), coin-operated HEWs, cooling tower conductivity controllers, and pre-rinse spray valves. The District, in cooperation with the Water Authority and San Diego Gas & Electric, has also distributed low-flow showerheads to its customers. This program, along with new construction, has resulted in an 85% customer saturation level.

The District's FY 10-11 budget included \$22,000 for conservation programs including system leak detection. The Water Authority, Metropolitan, and DWR augment this funding. The Water Authority administers the Agriculture Water Management Program and CIMIS for agricultural use throughout the District. **Appendix D**, the CUWCC BMP Reports for FY 09-10 contain additional information on the implementation of the BMPs by the District.

9.2 FUTURE WATER CONSERVATION SAVINGS

Projected water savings and effectiveness provided in the 2010 UWMP are based on industry standard methodologies for calculating savings, as defined by the CUWCC. The Water Authority assists the CUWCC in conducting pilot programs and analyzing ways to increase the accuracy of savings calculation methodologies.

This conservation target is appropriate to implement the BMPs and fulfill the District's commitment to the MOU. Additionally, this target coincides with the availability of anticipated funds from the District, Water Authority, and/or Metropolitan. The estimates of future water savings are based on savings projections from implementing various conservation measures and the result of state and national efficiency standards. The savings are a projection of the amount of water that will be conserved based on the best information available at this time.

Future water conservation savings are based on historical activity for Residential Surveys, Residential Retrofits, High-Efficiency Clothes Washer Incentives, and Toilet Incentives. Efficiency Standards include water-saving devices installed in new residential construction as part of state-required codes, as well as toilets replaced through natural replacement outside of the toilet incentive. Updated SANDAG demographic information helps determine savings for new construction through BMP implementation, and this data has been incorporated into the District's revised demand forecast as discussed in Section 4.

Water savings in the Commercial, Industrial, and Institutional (CII) sectors are based on both historical activity and anticipated new water-efficient products that will experience expanded use. These products include multi-load commercial HEWs, food steamers, commercial dishwashers, and waterless urinals.

SECTION 10 WATER RECYCLING

A significant aspect of developing a diverse supply mix for the community and using existing water supplies more efficiently is the development and implementation of water recycling projects. This section provides a general description of recycled water development within the District's service area, the issues associated with developing this supply, and projected yield. It also includes a description of the wastewater collection and treatment system for the District. Documentation on specific existing and future recycling projects is provided where available.

10.1 WASTEWATER COLLECTION, TREATMENT, AND DISPOSAL

The District currently operates and maintains two wastewater collection and treatment systems. The Santa Maria Sanitation District collects and treats wastewater from the main area of Ramona. The San Vicente Sanitation District collects and treats wastewater from the San Diego Country Estates development located on the southeastern part of the community.

The Santa Maria Sanitation District is primarily a gravity fed collection system comprised of various pipeline materials, in multiple sizes. The main interceptor is a 21-inch and 24-inch line that runs parallel to the Santa Maria Creek and discharges to the SMWRP located on the eastern edge of the community. Additional flow comes from the eastern area of the community, via a pressured force main, directly into the treatment plant. The Santa Maria Sanitation District utilizes four pump stations to convey flow to the SMWRP. The SMWRP is permitted to process up to 1-MG of flow on an annual daily dry weather average flow basis.

The San Vicente Sanitation District is primarily a gravity fed collection system and utilizes a lift station located on the south side of the collection area which discharges to the SVWRP. The plant is permitted to treat up to 0.8-MGD of wastewater.

Current and projected wastewater flows treated at the District's wastewater treatment plants are summarized in Table 32.

TABLE 32
RECYCLED WATER – WASTEWATER COLLECTION AND TREATMENT (AF/YR)

Type of Wastewater	2010	2015	2020	2025	2030	2035
Wastewater Collected & Treated in Service Area	1,781	1,871	1,938	2,016	2,050	2,072
Volume that Meets Recycled Water Standard	729	815	815	815	815	815

Wastewater disposal quantities and methods are presented in Table 33

TABLE 33
RECYCLED WATER – NON-RECYCLED WASTEWATER DISPOSAL (AF/YR)

Method of Disposal	Treatment Level	2010	2015	2020	2025	2030	2035
Spray Fields	Secondary or better	1,052	1,056	1,123	1,201	1,235	1,257

10.2 RECYCLED WATER USE

The SMWRP utilizes conventional treatment processes to produce an effluent which meets secondary treatment standards. This treated effluent is then transported through a force main to the tertiary treatment facilities located at the Rangeland Road treatment site. This site is co-located with the plant's wet weather storage ponds and the Rangeland Road spray field disposal location, where effluent not treated to tertiary standards is disposed of. The tertiary plant is permitted to produce up to 350,000-gallons of Title 22 tertiary water per day. This recycled water is currently contracted to deliver up to 250-AF/YR to the Mount Woodson Golf Course where it is used to provide irrigation water for the golf course.

Title 22 tertiary recycled water is produced at the SVWRP and sent to the San Vicente Golf Course ponds, where the water is then used for irrigation of the golf course and landscaped common areas, and Spangler Peak Ranch.

A comparison of 2005 projections and actual 2010 recycled water use is presented in Table 34.

TABLE 34
CURRENT AND PROJECTED RECYCLED WATER USE (AF/YR)

Use Type	2010 Actual Use	2005 Projection for 2010
Agricultural Irrigation	328	not broken down by type in 2005 UWMP
Golf Course Irrigation	401	
Total	729	1,480

10.3 FUTURE RECYCLED WATER DEVELOPMENT

The District has developed Recycled Water Rules and Regulations which are provided to all developers proposing new projects within the District's service area, and serve as guidance documents for the implementation of recycled projects. All new developments are required to evaluate the use of recycled water within their proposed project area. Projected future recycled water use is presented in Table 35.

TABLE 35
CURRENT AND PROJECTED RECYCLED WATER USE (AF/YR)

User Type	Description	Feasibility	2015	2020	2025	2030	2035
Agricultural Irrigation	Refer to text	100%	367	367	367	367	367
Golf Course Irrigation	Refer to text	100%	448	448	448	448	448
Total			815	815	815	815	815

The District provides recycled water at a discounted rate to its agricultural and irrigation customers. The discount is dependent on the agreement terms that are established at the time the contract is developed. Credits are provided to the customer based on usage requirements, delivery commitments, and offsetting potable water benefits. The District is working to expand and develop its recycled water projects by working with local golf courses, farmers and developers. Additional uses of recycled water at the existing golf courses, as well as future housing developments remain a focus for District staff.

A number of financial assistance programs available to San Diego County agencies include: the Water Authority's Financial Assistance Program (FAP) and Reclaimed Water Development Fund (RWDF); Metropolitan's Local Resources Program (LRP); the United States Bureau of Reclamation (USBR) Title XVI Grant Program; and the State Water Resources Control Board (SWRCB) low interest loan programs. Together, these programs offer funding assistance for all project phases, from initial planning and design to construction and operation. District staff periodically reviews the financial assistance programs available to determine if any of them are appropriate for District activities.

REFERENCES

- [1] Ramona Municipal Water District, 2005 Urban Water Management Plan, December 2005
- [2] California Department of Water Resources, Guidebook to Assist Urban Water Suppliers to Prepare a 2010 Urban Water Management Plan, March 2011.
- [3] San Diego County Water Authority, Draft 2010 Urban Water Management Plan, May 2011

APPENDIX A
URBAN WATER MANAGEMENT PLAN CHECKLIST

Table I-2 Urban Water Management Plan checklist, organized by subject

No.	UWMP requirement ^a	Calif. Water Code reference	Additional clarification	UWMP location
PLAN PREPARATION				
4	Coordinate the preparation of its plan with other appropriate agencies in the area, including other water suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable.	10620(d)(2)		Section 2.1 UWMP Coordination
6	Notify, at least 60 days prior to the public hearing on the plan required by Section 10642, any city or county within which the supplier provides water that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan. Any city or county receiving the notice may be consulted and provide comments.	10621(b)		Section 2.1 UWMP Coordination
7	Provide supporting documentation that the UWMP or any amendments to, or changes in, have been adopted as described in Section 10640 et seq.	10621(c)		Section 2.2 Plan Adoption; Appendix B.
54	Provide supporting documentation that the urban water management plan has been or will be provided to any city or county within which it provides water, no later than 60 days after the submission of this urban water management plan.	10635(b)		Section 2.1 UWMP Coordination; Appendix B
55	Provide supporting documentation that the water supplier has encouraged active involvement of diverse social, cultural, and economic elements of the population within the service area prior to and during the preparation of the plan.	10642		Section 2.1 Public Outreach; Appendix B
56	Provide supporting documentation that the urban water supplier made the plan available for public inspection and held a public hearing about the plan. For public agencies, the hearing notice is to be provided pursuant to Section 6066 of the Government Code. The water supplier is to provide the time and place of the hearing to any city or county within which the supplier provides water. Privately-owned water suppliers shall provide an equivalent notice within its service area.	10642		Section 2.2 Plan Adoption; Appendix B
57	Provide supporting documentation that the plan has been adopted as prepared or modified.	10642		Section 2.2 Plan Adoption; Appendix B.
58	Provide supporting documentation as to how the water supplier plans to implement its plan.	10643		Section 2.3 Plan Implementation

No.	UWMP requirement ^a	Calif. Water Code reference	Additional clarification	UWMP location
59	Provide supporting documentation that, in addition to submittal to DWR, the urban water supplier has submitted this UWMP to 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. This also includes amendments or changes.	10644(a)		Section 2.1 UWMP Coordination; Section 2.2 Plan Adoption
60	Provide supporting documentation that, not later than 30 days after filing a copy of its plan with the department, the urban water supplier has or will make the plan available for public review during normal business hours	10645		Section 2.2 Plan Adoption
SYSTEM DESCRIPTION				
8	Describe the water supplier service area.	10631(a)		Section 3.2 Service Area; Section 3.5 Description of Existing Facilities
9	Describe the climate and other demographic factors of the service area of the supplier	10631(a)		Section 3.2 Service Area; Section 3.4 Climate
10	Indicate the current population of the service area	10631(a)	Provide the most recent population data possible. Use the method described in "Baseline Daily Per Capita Water Use." See Section M.	Section 3.3 Population; Table 3
11	Provide population projections for 2015, 2020, 2025, and 2030, based on data from State, regional, or local service area population projections.	10631(a)	2035 and 2040 can also be provided to support consistency with Water Supply Assessments and Written Verification of Water Supply documents.	Table 3
12	Describe other demographic factors affecting the supplier's water management planning.	10631(a)		Section 3.2 Service Area; Section 3.3 Population
SYSTEM DEMANDS				

No.	UWMP requirement ^a	Calif. Water Code reference	Additional clarification	UWMP location
1	Provide baseline daily per capita water use, urban water use target, interim urban water use target, and compliance daily per capita water use, along with the bases for determining those estimates, including references to supporting data.	10608.20(e)		Section 5 and subsections; Tables 14-16
2	<i>Wholesalers:</i> Include an assessment of present and proposed future measures, programs, and policies to help achieve the water use reductions. <i>Retailers:</i> Conduct at least one public hearing that includes general discussion of the urban retail water supplier's implementation plan for complying with the Water Conservation Bill of 2009.	10608.36 10608.26(a)	Retailers and wholesalers have slightly different requirements	Section 2.2 Plan Adoption
3	Report progress in meeting urban water use targets using the standardized form.	10608.40		Not Applicable until 2015 UWMP
25	Quantify past, current, and projected water use, identifying the uses among water use sectors, for the following: (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, conjunctive use, and (I) agriculture.	10631(e)(1)	Consider 'past' to be 2005, present to be 2010, and projected to be 2015, 2020, 2025, and 2030. Provide numbers for each category for each of these years.	Section 4.1 Historic Water Deliveries; Section 4.2 Projected Water Deliveries; Tables 5-11
33	Provide documentation that either the retail agency provided the wholesale agency with water use projections for at least 20 years, if the UWMP agency is a retail agency, OR, if a wholesale agency, it provided its urban retail customers with future planned and existing water source available to it from the wholesale agency during the required water-year types	10631(k)	Average year, single dry year, multiple dry years for 2015, 2020, 2025, and 2030.	Section 4.4 Water Demand Projections; Table 13
34	Include projected water use for single-family and multifamily residential housing needed for lower income households, as identified in the housing element of any city, county, or city and county in the service area of the supplier.	10631.1(a)		Section 4.3 Low Income Housing Water Demand; Table 12
SYSTEM SUPPLIES				
13	Identify and quantify the existing and planned sources of water available for 2015, 2020, 2025, and 2030.	10631(b)	The 'existing' water sources should be for the same year as the "current population" in line 10. 2035 and 2040 can also be provided.	Section 6.8 Projected Water Supply; Tables 17 and 20

No.	UWMP requirement ^a	Calif. Water Code reference	Additional clarification	UWMP location
14	Indicate whether groundwater is an existing or planned source of water available to the supplier. If yes, then complete 15 through 21 of the UWMP Checklist. If no, then indicate "not applicable" in lines 15 through 21 under the UWMP location column.	10631(b)	Source classifications are: surface water, groundwater, recycled water, storm water, desalinated sea water, desalinated brackish groundwater, and other.	The District does not utilize groundwater as a supply source; Section 6.3 Groundwater
15	Indicate whether a groundwater management plan been adopted by the water supplier or if there is any other specific authorization for groundwater management. Include a copy of the plan or authorization.	10631(b)(1)		N/A
16	Describe the groundwater basin.	10631(b)(2)		N/A
17	Indicate whether the groundwater basin is adjudicated? Include a copy of the court order or decree.	10631(b)(2)		N/A
18	Describe the amount of groundwater the urban water supplier has the legal right to pump under the order or decree. If the basin is not adjudicated, indicate "not applicable" in the UWMP location column.	10631(b)(2)		N/A
19	For groundwater basins that are not adjudicated, provide information as to whether DWR has identified the basin or basins as overdrafted or has projected that the basin will become overdrafted if present management conditions continue, in the most current official departmental bulletin that characterizes the condition of the groundwater basin, and a detailed description of the efforts being undertaken by the urban water supplier to eliminate the long-term overdraft condition. If the basin is adjudicated, indicate "not applicable" in the UWMP location column.	10631(b)(2)		N/A
20	Provide a detailed description and analysis of the location, amount, and sufficiency of groundwater pumped by the urban water supplier for the past five years	10631(b)(3)		N/A
21	Provide a detailed description and analysis of the amount and location of groundwater that is projected to be pumped.	10631(b)(4)	Provide projections for 2015, 2020, 2025, and 2030.	N/A
24	Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis.	10631(d)		Section 6.4 Transfer and Exchange Opportunities; Table 19

No.	UWMP requirement ^a	Calif. Water		UWMP location
		Code reference	Additional clarification	
30	Include a detailed description of all water supply projects and programs that may be undertaken by the water supplier to address water supply reliability in average, single-dry, and multiple-dry years, excluding demand management programs addressed in (f)(1). Include specific projects, describe water supply impacts, and provide a timeline for each project.	10631(h)		Section 6.7 Future Water Projects
31	Describe desalinated water project opportunities for long-term supply, including, but not limited to, ocean water, brackish water, and groundwater.	10631(i)		Section 6.5 Desalinated Water
44	Provide information on recycled water and its potential for use as a water source in the service area of the urban water supplier. Coordinate with local water, wastewater, groundwater, and planning agencies that operate within the supplier's service area.	10633		Section 6.6 Recycled Water; Section 10 Water Recycling
45	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.	10633(a)		Section 10.1 Wastewater Collection, Treatment, and Disposal
46	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.	10633(b)		Section 10.1 Wastewater Collection, Treatment, and Disposal; Section 10.2 Recycled Water Use; Tables 32 and 33
47	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.	10633(c)		Section 10.2 Recycled Water Use; Table 34
48	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.	10633(d)		Section 10.3 Future Recycled Water Development; Table 35

No.	UWMP requirement ^a	Calif. Water		UWMP location
		Code reference	Additional clarification	
49	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.	10633(e)		Section 10.3 Future Recycled Water Development; Table 35
50	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.	10633(f)		Section 10.3 Future Recycled Water Development
51	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.	10633(g)		Section 10.3 Future Recycled Water Development
WATER SHORTAGE RELIABILITY AND WATER SHORTAGE CONTINGENCY PLANNING^b				
5	Describe water management tools and options to maximize resources and minimize the need to import water from other regions.	10620(f)		Section 7.1 Water Supply Reliability Assessment
22	Describe the reliability of the water supply and vulnerability to seasonal or climatic shortage and provide data for (A) an average water year, (B) a single dry water year, and (C) multiple dry water years.	10631(c)(1)		Section 7.1 Water Supply Reliability Assessment
23	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.	10631(c)(2)		Section 7.1 Water Supply Reliability Assessment; Table 22
35	Provide an urban water shortage contingency analysis that specifies stages of action, including up to a 50-percent water supply reduction, and an outline of specific water supply conditions at each stage	10632(a)		Section 8 Shortage Contingency Analysis; Section 8.2.2 District Water Shortage Contingency Plan; Table 28

No.	UWMP requirement ^a	Calif. Water Code reference	Additional clarification	UWMP location
36	Provide an estimate of the minimum water supply available during each of the next three water years based on the driest three-year historic sequence for the agency's water supply.	10632(b)		Section 7.1 Water Supply Reliability Assessment
37	Identify 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.	10632(c)		Section 8.1 Catastrophic Water Shortage
38	Identify 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.	10632(d)		Section 8.2.2 District Water Shortage Contingency Plan; Table 29
39	Specify 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.	10632(e)		Section 8.2.2 District Water Shortage Contingency Plan; Table 29
40	Indicated penalties or charges for excessive use, where applicable.	10632(f)		Section 8.2.2 District Water Shortage Contingency Plan; Table 30
41	Provide an analysis of the impacts of each of the actions and conditions described in subdivisions (a) to (f), 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.	10632(g)		Section 8.2.3 Revenue Impacts
42	Provide a draft water shortage contingency resolution or ordinance.	10632(h)		Section 8.2.2 District Water Shortage Contingency Plan; Appendix C

No.	UWMP requirement ^a	Calif. Water Code reference	Additional clarification	UWMP location
43	Indicate a mechanism for determining actual reductions in water use pursuant to the urban water shortage contingency analysis.	10632(i)		Section 8.2.2 District Water Shortage Contingency Plan; Table 30; Appendix C
52	Provide information, to the extent practicable, relating to the quality of existing sources of water available to the supplier over the same five-year increments, and the manner in which water quality affects water management strategies and supply reliability	10634	For years 2010, 2015, 2020, 2025, and 2030	Section 6.9 Quality of Water Supply
53	Assess the water supply reliability during normal, dry, and multiple dry water years by comparing the total water supply sources available to the water supplier with the total projected water use over the next 20 years, in five-year increments, for a normal water year, a single dry water year, and multiple dry water years. Base the assessment on the information compiled under Section 10631, including available data from state, regional, or local agency population projections within the service area of the urban water supplier.	10635(a)		Section 7.2 Projected Supplies and Demands; Tables 24-26
DEMAND MANAGEMENT MEASURES				
26	Describe how each water demand management measure is being implemented or scheduled for implementation. Use the list provided.	10631(f)(1)	Discuss each DMM, even if it is not currently or planned for implementation. Provide any appropriate schedules.	Section 9 Demand Management; Appendix D – 09/10 CUWCC BMP Reports
27	Describe the methods the supplier uses to evaluate the effectiveness of DMMs implemented or described in the UWMP.	10631(f)(3)		Section 9 Demand Management; Appendix D – 09/10 CUWCC BMP Reports
28	Provide an estimate, if available, of existing conservation savings on water use within the supplier's service area, and the effect of the savings on the ability to further reduce demand.	10631(f)(4)		Section 9 Demand Management; Appendix D – 09/10 CUWCC BMP Reports

No.	UWMP requirement ^a	Calif. Water Code reference	Additional clarification	UWMP location
29	Evaluate each water demand management measure that is not currently being implemented or scheduled for implementation. The evaluation should include economic and non-economic factors, cost-benefit analysis, available funding, and the water suppliers' legal authority to implement the work.	10631(g)	See 10631(g) for additional wording.	Section 9 Demand Management; Appendix D – 09/10 CUWCC BMP Reports
32	Include the annual reports submitted to meet the Section 6.2 requirements, if a member of the CUWCC and signer of the December 10, 2008 MOU.	10631(j)	Signers of the MOU that submit the annual reports are deemed compliant with Items 28 and 29.	Section 9 Demand Management; Appendix D – 09/10 CUWCC BMP Reports

a The UWMP Requirement descriptions are general summaries of what is provided in the legislation. Urban water suppliers should review the exact legislative wording prior to submitting its UWMP.

b The Subject classification is provided for clarification only. It is aligned with the organization presented in Part I of this guidebook. A water supplier is free to address the UWMP Requirement anywhere with its UWMP, but is urged to provide clarification to DWR to facilitate review.

APPENDIX B
RMWD BOARD OF DIRECTORS RESOLUTION

RESOLUTION NO. 12-1458

**A RESOLUTION OF THE BOARD OF DIRECTORS OF THE
RAMONA MUNICIPAL WATER DISTRICT
ADOPTING THE 2010 URBAN WATER MANAGEMENT PLAN**

WHEREAS, the Urban Water Management Planning Act, Water Code section 10610 et seq. ("Act"), requires every urban water supplier to prepare and adopt an updated Urban Water Management Plan ("Plan") at least once every five (5) years on or before December 31, in years ending in five and zero, and whereby pursuant to SBX7-7 (adding Water Code section 10608 et. seq.) and SB 1478 (amending Water Code section 10608.20), the time for urban water suppliers to adopt their 2010 Plans was extended to July 2011; and

WHEREAS, the Ramona Municipal Water District ("District") is an "urban water supplier" for purposes of the Act because it provides 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; and

WHEREAS, the District has prepared a 2010 Plan and, in accordance with applicable law, including but not limited to Water Code sections 10620(d), 10621(b), and 10642, the District has undertaken certain notification and coordination, public involvement and outreach, public comment, public notice, and other procedures in relation to its 2010 Plan; and

WHEREAS, as authorized by Water Code section 10620(e), the District has prepared its 2010 Plan with its own staff, with the assistance of consulting professionals, and in cooperation with other governmental agencies, and has utilized and relied upon industry standards and the expertise of industry professionals in preparing its 2010 Plan, and has also in part utilized and relied upon the DWR Guidebook to Assist Urban Water Suppliers to Prepare a 2010 Urban Water Management Plan (March 2011) and the DWR Methodologies for Calculating Baseline and Compliance Urban Per Capita Water Use (For the Consistent Implementation of the Water Conservation Act of 2009) (February 2011) in preparing its 2010 Plan; and

WHEREAS, in accordance with applicable law, including Water Code section 10642 and Government Code section 6066, the District made its Draft 2010 Plan available for public inspection, and caused to be published within the jurisdiction of the District at least two notices of the public hearing regarding the District's 2010 Plan; and

WHEREAS, pursuant to said public hearing on the 2010 Plan, the District encouraged the active involvement of diverse social, cultural, and economic elements of the population within the District's service area with regard to the preparation of the 2010 Plan and provided members of the public and other interested entities with the opportunity to be heard in connection with proposed adoption of the 2010 Plan; and

WHEREAS, the Board of Directors of the District has reviewed and considered the purposes and requirements of the Act, the contents of the 2010 Plan, and the documentation contained in the administrative record in support of the 2010 Plan, and has determined that the factual analyses and conclusions set forth in the 2010 Plan are supported by substantial evidence;

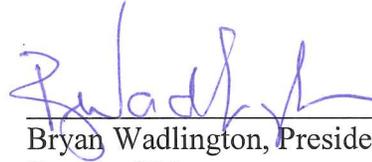
NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of the Ramona Municipal Water District as follows:

1. The Recitals set forth above are incorporated herein and made an operative part of this Resolution.
2. The Board hereby adopts the 2010 Urban Water Management Plan.
3. The Board hereby authorizes and directs the General Manager to include a copy of this Resolution in the District's 2010 Plan.
4. The Board hereby authorizes and directs the General Manager, in accordance with Water Code Section 10644(a), to submit copies of the 2010 Plan to the California Department of Water Resources, the California State Library, and any city or county within which the District provides water supplies no later than thirty (30) days after this adoption date.
5. The Board hereby authorizes and directs the General Manager, in accordance with Water Code Section 10645, to make the 2010 Plan available for public review during normal business hours no later than thirty (30) days after filing a copy of the 2010 Plan with the California Department of Water Resources.
6. The Board hereby authorizes and directs the General Manager, in accordance with Water Code Section 10635(b), to provide that portion of the 2010 Plan prepared pursuant to Water Code Section 10635(a) to any city or county within which the District provides water supplies no later than sixty (60) days after filing a copy of the Plan with the California Department of Water Resources.
7. The Board hereby authorizes and directs the General Manager to implement the 2010 Plan in accordance with the Urban Water Management Planning Act and to take any and all other action necessary to implement the 2010 Plan in accordance with the Act.
8. The Board hereby authorized and directs the General Manager to recommend to the Board additional steps necessary or appropriate to effectively carry out the implementation of the 2010 Plan and the Urban Water Management Planning Act.

[signatures continued on the next page]

ADOPTED, SIGNED, AND APPROVED this 24th day of January, 2012 by the following vote:

AYES: 5
NOES: 0
ABSENT: 0
ABSTAIN: 0



Bryan Wadlington, President
Board of Directors
Ramona Municipal Water District

ATTEST:



Everett "Red" Hager, Secretary

APPENDIX C
RMWD DROUGHT RESPONSE CONSERVATION PROGRAM

Section 7.40.040 Drought Response Conservation Program.

A. Definitions

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

a. "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.

b. "Water Authority" means the San Diego County Water Authority.

c. "DMP" means the Water Authority's Drought Management Plan in existence on the effective date of this Chapter 7.40 and as readopted or amended from time to time, or an equivalent plan of the Water Authority to manage or allocate supplies during shortages.

d. "Metropolitan" means the Metropolitan Water District of Southern California.

e. "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 District.

f. "SAWR" means the Special Agricultural Water Rate program available from Metropolitan that is administrated by the Water Authority.

B. Application

(1) The provisions of Chapter 7.40 apply to any person in the use of any water provided by the District and proposed users of District water, as applicable.

(2) Chapter 7.40 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.

(3) Nothing in Chapter 7.40 is intended to affect or limit the ability of the District to declare and respond to an emergency, including an emergency that affects the ability of the District to supply water.

(4) The provisions of Chapter 7.40 do not apply to use of water from private wells or to recycled water.

(5) Unless otherwise specifically authorized in this Legislative Code, nothing in Chapter 7.40 shall apply to use of water that is subject to a special supply program, such as the Metropolitan Interim Agricultural Water Program. A person using water subject to Metropolitan Interim Agricultural Water Program is subject to Chapter 7.41. Violations of the conditions of special supply programs are subject to the penalties established under the applicable program.

C. Drought Response Level 1 – Drought Watch Condition

(1) A Drought Response Level 1 condition is also referred to as a “Drought Watch” condition. A Level 1 condition applies 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. The General Manager may declare the existence of a Drought Response Level 1 and take action to implement the Level 1 conservation practices identified in this Section.

(2) During a Level 1 Drought Watch condition, District will increase its public education and outreach efforts to emphasize increased public awareness of the need to implement the following water conservation practices:

a. 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.

b. 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.

c. Irrigate residential and commercial landscape before 10 a.m. and after 6 p.m. only.

d. Use a hand-held hose equipped with a positive shut-off nozzle or bucket to water landscaped areas, including trees and shrubs located on residential and commercial properties that are not irrigated by a landscape irrigation system.

e. Irrigate nursery and commercial grower’s 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 or rotating nozzles are used. Irrigation of nursery propagation beds is permitted at any time. Watering of livestock is permitted at any time.

f. Use re-circulated water to operate ornamental fountains.

g. 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 recirculates (reclaims) water on-site. Avoid washing during hot conditions when additional water is required due to evaporation.

h. Serve and refill water in restaurants and other food service establishments only upon request.

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

j. Repair all water leaks within five (5) days of notification by the District unless other arrangements are made with the General Manager.

k. Use recycled or non-potable water for construction purposes when available and feasible.

D. Drought Response Level 2- Drought Alert Condition

(1) A Drought Response Level 2 condition is also referred to as a "Drought Alert" condition. A Drought Response Level 2 "Drought Alert" condition was declared by the Board at a regular meeting of the Board on May 12, 2009. As such, effective July 1, 2009, a consumer demand reduction of up to eight percent (8%) is required in order to have sufficient supplies available to meet anticipated demands. At this time, the consumer demand reduction of 8% shall be voluntary and shall not be enforced by the District utilizing the enforcement and penalty provisions set forth in this Chapter 7.40.

(2) All District water use shall comply with Level 1 Drought Watch water conservation practices during a Level 2 Drought Alert and shall also comply with the following additional conservation measures:

a. Limit residential and commercial landscape irrigation to no more than three (3) assigned days per week on a schedule established by the General Manager. At this time, the General Manager's schedule calls for watering even numbered addresses on Monday, Wednesday and Friday; odd numbered addresses shall water on Tuesday, Thursday and Saturday. No watering shall occur on Sunday. The residential and commercial schedule shall be posted by the District and may be modified by the General Manager in his discretion. During the months of November through May, landscape irrigation is limited to no more than once per week on a schedule established by the General Manager. The landscape irrigation schedule shall be posted by the District and may be modified by the General Manager in his discretion. This section shall not apply to commercial growers or nurseries.

b. Limit lawn watering and landscape irrigation using sprinklers to no more than fifteen (15) minutes per watering station per assigned day. 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 rotating nozzles.

c. Water landscaped areas, including trees and shrubs located on residential and commercial properties, and not irrigated by a landscape irrigation system governed by Section D(2)(a) above, on the same schedule set forth in Section D(2)(a) above,

by using a bucket, hand-held hose with positive shut-off nozzle, or low-volume non-spray irrigation.

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

e. Stop operating ornamental fountains or similar decorative water features unless recycled water is used.

(3) During a Drought Response Level 2 condition, the District Board of Directors may find that drought conditions are such that an emergency condition exists and may declare a Drought Emergency in the manner and on the grounds provided in California Water Code section 350. In the event of a declared Drought Emergency, no applications for new potable metered water service or upsizing of metered water service shall be accepted, no new temporary meters or permanent meters shall be provided and no new statements of ability to serve or provide potable water service (such as, will serve letters, certificates, or letters of availability, commitment letters, agency clearance forms, out-of-district potable water service agreements) shall be issued, except under the following circumstances:

- a. A valid, unexpired building permit has been issued for the project; or
- b. The project is necessary to protect the public's health, safety, and welfare; or
- c. The applicant provides substantial evidence of an enforceable commitment that water demands for the project will be offset prior to the provision of a new water meter(s) to the satisfaction of the District, in its sole discretion.

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

(4) The District may establish a water allocation for property served by the District using a method that does not penalize persons for the prior implementation of conservation methods or the installation of water saving devices. If the District establishes a water allocation, the District shall provide notice of the allocation by including the allocation in the regular billing statement for the fee or charge or by any other mailing to the address to which the District customarily mails the billing statement for fees or charges for on-going water service.

(5) Under the Drought Response Level 2 "Drought Alert" condition, effective July 1, 2009, a consumer demand reduction of up to thirteen percent (13%) is required for SAWR accounts in order to have sufficient supplies available to meet anticipated demands. Notwithstanding any provisions in this Chapter 7.40 or Chapter 7.41 to the contrary, violations of the conditions of SAWR program are subject to the penalties established under the applicable Metropolitan's SAWR program requirements. The consumer demand reduction amount of thirteen (13%) is mandatory and is subject to penalties assessed by Metropolitan under the SAWR program.

E. Drought Response Level 3 – Drought Critical Condition

(1) A Drought Response Level 3 condition is also referred to as a "Drought Critical" condition. A Level 3 condition applies when the Water Authority notifies its member agencies that due to increasing cutbacks caused by drought or other reduction of

supplies, a consumer demand reduction of up to forty percent (40%) is required in order to have sufficient supplies available to meet anticipated demands. The District Board of Directors may declare the existence of a Drought Response Level 3 condition and implement the Level 3 conservation measures identified in this policy.

(2) All District water use shall comply with Level 1 Drought Watch and Level 2 Drought Alert water conservation practices and measures during a Level 3 Drought Critical condition and shall also comply with the following additional mandatory conservation measures:

a. Limit residential and commercial landscape irrigation to no more than two (2) assigned days per week on a schedule established by the General Manager and posted by the District. During the months of November through May, landscape irrigation is limited to no more than once per week on a schedule established by the General Manager and posted by the District. This section shall not apply to commercial growers or nurseries.

b. Water landscaped areas, including trees and shrubs located on residential and commercial properties, and not irrigated by a landscape irrigation system governed by Section E(2)(a), on the same schedule set forth in Section E(2)(a) by using a bucket, hand-held hose with a positive shut-off nozzle, or low-volume non-spray irrigation.

c. 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 Drought response level under this Chapter 7.40.

d. Stop washing vehicles except at commercial carwashes that re-circulate water, or by high pressure/low volume wash systems.

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

(3) During a Drought Response Level 3 condition, the District Board of Directors may find that drought conditions are such that an emergency condition exists and may declare a Drought Emergency in the manner and on the grounds provided in California Water Code section 350. In the event of a declared Drought Emergency, no new potable water service shall be provided, no new temporary meters or permanent meters shall be provided and no applications for new potable metered water service or upsizing of metered water service shall be accepted, no new temporary meters or permanent meters shall be provided and no new statements of ability to serve or provide potable water service (such as, will serve letters, certificates, or letters of availability, commitment letters, agency clearance forms, out-of-district potable water service agreements) shall be issued, except under the following circumstances:

- a. A valid, unexpired building permit has been issued for the project; or
- b. The project is necessary to protect the public's health, safety, and welfare; or
- c. The applicant provides substantial evidence of an enforceable commitment that water demands for the project will be offset prior to the provision of a new water meter(s) to the satisfaction of the District, in its sole discretion.

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

(4) The District may establish a water allocation for property served by the District using a method that does not penalize persons for the prior implementation of conservation methods or the installation of water saving devices. If the District establishes a water allocation, the District shall provide notice of the allocation by including the allocation in the regular billing statement for the fee or charge or by any other mailing to the address to which the District customarily mails the billing statement for fees or charges for on-going water service. Following the effective date of the water allocation as established by the District, any person that uses the water in excess of the allocation shall be subject to a penalty equal to two (2) times the District's billing rate for each billing unit of water in excess of the allocation. The penalty for excess water usage shall be cumulative to any other remedy or penalty that may be imposed for violation of this Chapter. For the purpose of assessing administrative fines pursuant to Chapter 7.40.041, each billing period in which an allocation is exceeded shall count as a separate violation. Subsequent violations that occur during a calendar year shall count cumulatively for the purpose of assessing administrative fines for second violations and additional violations.

F. Drought Response Level 4- Drought Emergency Condition

(1) A Drought Response Level 4 condition is also referred to as a "Drought Emergency" condition. A Level 4 condition applies 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 forty percent (40%) percent in order for the Authority to have maximum supplies available to meet anticipated demands. Upon declaration by the Authority of a Drought Emergency Condition, the District may declare a Drought Emergency in the manner and on the grounds provided in California Water Code section 350 et seq.

(2) All District water use shall comply with conservation practices and measures required during Level 1 Drought Watch, Level 2 Drought Alert, and Level 3 Drought Critical conditions and shall also comply with the following additional mandatory conservation measures:

a. 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 District has determined that recycled water is available and may be lawfully applied to the use.

(i) Maintenance of trees and shrubs that are watered on the same schedule set forth in Section E(2)(a) by using a bucket, hand-held hose with a positive shut-off nozzle, or low-volume non-spray irrigation;

(ii) 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;

(iii) Maintenance of existing landscaping for erosion control;

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

(v) 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 E(2)(a) above;

(vi) Watering of livestock; and

(vii) Public works projects and actively irrigated environmental mitigation projects.

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

The District may establish a water allocation for property served by the District. If the 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 District customarily mails the billing statement for fees or charges for on-going water service. Following the effective date of the water allocation as established by the District, any person that uses water in excess of the allocation shall be subject to a penalty equal to three (3) times the District's billing rate for each billing unit of water in excess of the allocation. The penalty for excess water usage shall be cumulative to any other remedy or penalty that may be imposed for violation of this Chapter. For the purpose of assessing administrative fines pursuant to Chapter 7.40.041, each billing period in which an allocation is exceeded shall count as a separate violation. Subsequent violations that occur during a calendar year shall count cumulatively for the purpose of assessing administrative fines for second violations and additional violations.

G. Correlation Between Drought Management Plan and Drought Response Levels

(1) The correlation between the Water Authority's Drought Management Plan ("DMP") stages and the District Drought response levels identified in this Chapter is described herein. Under DMP Stage 1, the District may implement Drought Response Level 1 actions. Under DMP Stage 2, the District would implement Drought Response Level 1 or Level 2 actions. Under DMP Stage 3, the District may implement Drought Response Level 2, Level 3, or Level 4 actions.

The Drought Response Levels identified in this Chapter correspond with the Water Authority DMP as identified in the following table:

Drought Levels	Response	Use Restrictions	Conservation Target	DMP Stage
1 - Drought Watch		Voluntary	Up to 10%	Stage 1 or 2
2 - Drought Alert		Mandatory	Up to 20%	Stage 2 or 3
3 - Drought Critical		Mandatory	Up to 40%	Stage 3
4 - Drought Emergency		Mandatory	Above 40%	Stage 3 or 4

H. Procedures for Determination and Notification of Drought Response Level

(1) The existence of a Drought 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 District and provided to the District Board of Directors. The General Manager may publish a notice of the determination of existence of Drought Response Level 1 condition in one or more newspapers, including a newspaper of general circulation within the District. The District may also post notice of the condition on their website.

(2) The existence of Drought Response Level 2 or Level 3 conditions may be declared by resolution of the District Board of Directors adopted at a regular or special public meeting held in accordance with State law, including but not limited to Water Code section 350 et seq. The mandatory conservation measures applicable to Drought Response Level 2 or Level 3 conditions shall become effective as stated in the Board Resolution. Within ten (10) days following the declaration of the response level, the District shall publish a copy of the resolution in a newspaper used for publication of official notices.

(3) The existence of a Drought 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 Drought Response Level 4 conditions shall become effective as stated in the Board Resolution. Within ten (10) days following the declaration of the response level, the District shall publish a copy of the resolution in a newspaper used for publication of official notices. If the 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 District customarily mails the billing statement for fees or charges for on-going water service. Water allocation shall become effective as stated in the Board Resolution.

(d) The General Manager may declare the end of Drought Response Level 1. The District Board of Directors may declare an end to a Drought Response Level by the adoption of a resolution at any regular or special meeting held in accordance with State law.

APPENDIX D
2009 & 2010 CUWCC BMP REPORTS



CUWCC BMP RETAIL COVERAGE REPORT 2009-2010

Foundation Best Management Practices for Urban Water Efficiency

Agency: **Ramona Municipal Water District** District Name: **Ramona Municipal Water District** CUWCC Unit #: **187**
 Retail

Primary Contact: **Patly Bevers** Telephone: **760-789-1330** Email: **pbevers@rmwd.org**

Compliance Option Chosen By Reporting Agency:
 (Traditional, Flex, Track or GPCD)

GPCD if used: **GPCD in 2010 156**
GPCD Target for 2018 271

Year	Report	Target	Highest Acceptable Bound
2010	1	95.48%	318
2012	2	92.8%	306
2014	3	89.2%	294
2016	4	85.6%	282
2018	5	82.0%	271

Not on Track if 2010 GPCD is \geq than target

GPCD in 2010 **156**

Highest Acceptable GPCD for 2010 **330**

On Track



CUWCC BMP RETAIL COVERAGE REPORT 2009-2010

Foundation Best Management Practices for Urban Water Efficiency

Foundational BMPs

BMP 1.1 Operational Practices

	2009	2010	Conservation Coordinator provided with necessary resources to implement BMPs?
1. Conservation Coordinator provided with necessary resources to implement BMPs?	<p>Name: Patty Bevers Title: Water Resources Specialist Email: pbevers@rmwd.org</p> <p>On Track</p>	<p>Name: Patty Bevers Title: Water Resources Specialist Email: pbevers@rmwd.org</p> <p>On Track</p>	
2. Water waste prevention documentation			
Descriptive File	APPROVED WATER	APPROVED WATER CONSERVATION ORDINANCE. pdf (emailed 08/17/11)	On Track, if any one of the 6 ordinance actions done, plus documentation or links provided
Descriptive File 2010			
URL	http://www.rmwd.org/	http://www.rmwd.org/	
URL 2010			
Describe Ordinance Terms	RMWD Legislative Code, Water Conservation, Chapter 7.40 -		
Describe Ordinance Terms 2010			
			RMWD Legislative Code, Water Conservation, Chapter 7.40 - Level 2 Drought Alert was established in July of 2009, code prohibits water waste
			On Track



CUWCC BMP RETAIL COVERAGE REPORT 2009-2010

Foundation Best Management Practices for Urban Water Efficiency

BMP 1.2 Water Loss Control

	2009	2010
Complete a prescreening Audit	Yes	On Track
Metered Sales	9,245	
Verifiable Other Uses	9,351	
Total Supply		
(Metered Sales + System uses)/	0.99	On Track
Total Supply >0.89		
If ratio is less than 0.9, complete a full scale Audit in 2009?	Yes	On Track
Verify Data with Records on File?	Yes	On Track
Operate a system Leak Detection Program?	No	On Track

Change in Lake level of Lake Ramona between June 30 2008 and June 30 2009 is included in total supply into the system. This form does not take into account timing differences cause by the bi monthly billing cycle the District uses for most of their accounts. I.e. water billed in January could have been used and supplied in November. The District does not track water used for fire suppression. This form also does not take into account inaccuracies in Lake level due to reading level from a gauge or the timing differences in reading meters from water going into and out of the lake versus reading the lake level.

	2010	2010	2010
Complete Standard Water Audit using AWWA Software?	Yes	On Track	
AWWA file provided to CUWCC?	RMWD_187_FY2010_AWWA.XLS	On Track	
AWWA Water Audit Validity Score?	73		
Completed Training in AWWA Audit Method?	No		
Completed Training in Component Analysis Process?	No		
Complete Component Analysis?	No		
Repaired all leaks and breaks to the extent cost effective?	Yes	On Track	
Locate and repair unreported leaks to the extent cost effective.	No		
Maintain a record-keeping system for the repair of reported leaks, including time of report, leak location, type of leaking pipe segment or fitting, and leak running time from report to repair.			
Provided 7 types of Water Loss Control Info			
Leaks Repaired	Value Apparent Losses	Miles Surveyed	Press Reduction
			Cost of Interventions
			Water Saved

On Track if Yes

On Track if =>.89, Not on Track if No

On Track if Yes

On Track if Yes

On Track if Yes, Not on Track if No

On Track if Yes, Not on Track if No

Info only until 2012

Info only until 2012

Info only until 2012

On Track if Yes, Not on Track if No

Info only until 2012

Info only until 2012

Info only until 2012



CUWCC BMP RETAIL COVERAGE REPORT 2009-2010

Foundation Best Management Practices for Urban Water Efficiency

1.3 METERING WITH COMMODITY RATES FOR ALL NEW CONNECTIONS AND RETROFIT OF EXISTING CONNECTIONS

	2009	2010	
Exemption or "At least as Effective As" accepted by CUWCC	No	No	On Track
Numbered Unmetered Accounts	Yes	Yes	On Track
Metered Accounts billed by volume of use	400	496	
Number of C/I accounts with Mixed Use meters	No	No	
Conducted a feasibility study to assess merits of a program to provide incentives to switch meter use accounts to dedicated landscape meters?	No	No	Info only until 2012
Feasibility Study provided to CUWCC?	Yes	Yes	On Track
Completed a written plan, policy or program to test, repair and replace meters			On Track if Yes, Not on Track if No

If signed MOU prior to 31 Dec 1997, On Track. If all connections metered, If signed after 31 Dec 1997, complete meter installations by 1 July 2012 or within 6 yrs of signing and 20% biannual reduction of unmetered connections.

On Track if no unmetered accounts

Volumetric billing required for all connections on same schedule as metering

Info only

Info only until 2012

Info only until 2012

On Track if Yes, Not on Track if No



CUWCC BMP RETAIL COVERAGE REPORT 2009-2010

Foundation Best Management Practices for Urban Water Efficiency

Agency: Ramona Municipal Water District **District Name:** Ramona Municipal Water District **CUWCC Unit #:** 187
Retail: **Coverage Report Date:**

Primary Contact: Patty Bevers **Email:** pbevers@rmwd.org

1.4 Retail Conservation Pricing
Metered Water Rate Structure

Customer Class	2009 Rate Type		2010 Rate Type		Conserving Rate?	Conserving Rate?
	Conserving Rate?	Rate Type	Conserving Rate?	Rate Type		
Single Family	Yes	Uniform	Yes	Uniform	Yes	Yes
Multi Family	Yes	Uniform	Yes	Uniform	Yes	Yes
Commercial	Yes	Uniform	Yes	Uniform	Yes	Yes
Agricultural	Yes	Uniform	Yes	Uniform	Yes	Yes
Other	Yes	Uniform	Yes	Uniform	Yes	Yes
		On Track				On Track

Date 2009 data received: [Redacted]
 Date 2010 data received: [Redacted]

On Track if: Increasing Block, Uniform, Allocation, Standby Service; Not on Track if otherwise

Year Volumetric Rates began for Agencies with some Unmetered Accounts: Info only
 Agencies with Partially Metered Service Areas: If signed MOU prior to 31 Dec. 1997, implementation starts no later than 1 July 2010. If signed MOU after 31 Dec. 1997, implementation starts no later than 1 July 2013, or within seven years of signing the MOU.



CUWCC BMP RETAIL COVERAGE REPORT 2009-2010

Foundation Best Management Practices for Urban Water Efficiency

Adequacy of Volumetric Rates) for Agencies with No Unmetered Accounts

Customer Class	2009 Rate Type	2009 Volumetric Revenues \$1000s	2010 Rate Type	2010 Volumetric Revenues \$1000s	Volumetric meter rates % effective 2011 Agency Choices for rates:
Single Family	Uniform	\$ 5,900,211	Uniform	\$ 5,688,505	A) Agencies signing MOU prior to 13 June2007, implementation starts 1 July2007: On Track if (V / (V + M) ≥ 70% x .8 = 56% for 2009 and 70% x 0.90 = 63% for 2010; Not on track if (V / (V + M)) < 70%; B) Use Canadian model. Agencies signing MOU after 13June2007, implementation starts July 1 of year following signing.
Multi Family	Uniform	\$ 572,243	Uniform	\$ 712,740	
Commercial	Uniform	\$ 1,276,797	Uniform	\$ 1,012,947	
Agricultural	Uniform	\$ 2,565,896	Uniform	\$ 2,277,974	
Other	Uniform	\$ 9,122	Uniform	\$ 16,668	
Total Revenue Commodity Charges (V):		\$ 10,324,269		\$ 9,708,834	
Total Revenue Fixed Charges (M):		\$ 2,349,849		\$ 2,520,759	
Calculate: V / (V + M):		8.1%		79%	
		Info Only until 2011		Info Only until 2011	

Canadian Water & Wastewater Rate Design Model Used and Provided to CUWCC
If Canadian Model is used, was 1 year or 3 year period applied?

No
Info Only until 2011

Wastewater Rates

Does Agency Provide Sewer Service?

2009 If 'No', then wastewater rate info not required.
Yes

2010
Yes

Customer Class	2009 Rate Type	Conserving Rate?	Customer Class	2010 Rate Type	Conserving Rate?
Other	Uniform	Yes	Other	Uniform	Yes
		Info Only until 2011			Info Only until 2011
		On Track			On Track

On Track if: 'Increasing Block', 'Uniform', 'based on long term marginal cost' or 'next unit of capacity'



CUWCC BMP RETAIL COVERAGE REPORT 2009-2010

Foundation Best Management Practices for Urban Water Efficiency

BMP 2. EDUCATION PROGRAMS

BMP 2.1 Public Outreach Actions Implemented and Reported to CUWCC

Does a wholesale agency implement Public Outreach Programs for this utility's benefit?

Names of Wholesale Agencies

- 1) Contacts with the public (minimum = 4 times per year)
- 2) Water supplier contacts with media (minimum = 4 times per year, i.e., at least quarterly).
- 3) An actively maintained website that is updated regularly (minimum = 4 times per year, i.e., at least quarterly).
- 4) Description of materials used to meet minimum requirement.

5) Annual budget for public outreach program.

6) Description of all other outreach programs

	2009	2010	Yes/No
San Diego County Water Authority, Metropolitan Water District	Yes	Yes	
San Diego County Water Authority, Metropolitan Water District	115,323	121,158	
San Diego County Water Authority, Metropolitan Water District	79	60	
San Diego County Water Authority, Metropolitan Water District	Yes http://www.rmwd.org/	Yes http://www.rmwd.org/	
San Diego County Water Authority, Metropolitan Water District	Newsletter articles on conservation Website Flyers and/or brochures (total copies), bill stuffers Landscape water conservation media campaign General water conservation information Articles or stories resulting from outreach Newspaper contacts	Newsletter articles on conservation Website Flyers and/or brochures (total copies), bill stuffers Landscape water conservation media campaign General water conservation information Articles or stories resulting from outreach Newspaper contacts	All 6 action types implemented and reported to CUWCC to be 'On Track'
San Diego County Water Authority, Metropolitan Water District	\$ 16,000	\$ 19,000	
San Diego County Water Authority, Metropolitan Water District	01/09 "Save Water Now" 02/09 Drought Information 05/09 News Release 06/09 General Manager's Letter	07/09 Level 2 Drought Alert 09/09 CWA Flyer 01/10 News Release 02/10 District website completely redesigned	
	On Track		On Track



CUWCC BMP RETAIL COVERAGE REPORT 2009-2010

Foundation Best Management Practices for Urban Water Efficiency

2.2 School Education Programs Implemented and Reported to CUWCC

	2009	2010	Yes/ No
Does a wholesale agency implement School Education Programs for this utility's benefit? Name of Wholesale Supplier?	Yes	Yes	
	San Diego County Water Authority, Metropolitan Water District	San Diego County Water Authority, Metropolitan Water District	
1) Curriculum materials developed and/or provided by agency	3rd & 4th grade history video/dvd, "Give Water a Second Chance...Re-cycle it!" for 5th grade, Be Water Smart DVD, Water Quality Testing Kit for high school science teachers' classroom use, Water Science in a Box for 1st, 2nd and 3rd grades, "Watersheds, Water & You" student workbook for 5th grade, Water Works! school-to-career curriculum, Water Smart garden curriculum.	3rd & 4th grade history video/dvd, "Give Water a Second Chance...Re-cycle it!" for 5th grade, Be Water Smart DVD, Water Quality Testing Kit for high school science teachers' classroom use, Water Science in a Box for 1st, 2nd and 3rd grades, Watersheds, Water & You" student workbook for 5th grade, Water Works! school-to-career workbook, Water Smart garden curriculum	
2) Materials meet state education framework requirements and are grade-level appropriate?	Yes	Yes	All 5 actions types implemented and reported to CUWCC to be
3) Materials Distributed to K-6? Describe K-6 Materials	Yes	Yes	Describe materials to meet minimum requirements
4) Annual budget for school education program.	Yes	Yes	Info Only
	\$ 1,000	\$ 1,000	
5) Description of all other water supplier education programs	Traveling Library Program, Youth and Scout Program, 20-Gallon Challenge Student Pledge Contest, Splash Science Mobile Lab, H2O Where Did You Go? Theatre Program	Traveling Library Program, Youth and Scout Merit Patch Program, 20-Gallon Challenge Student Pledge Contest, WaterSm "ART" Essay Contest, Splash Science Mobile Lab, H2O Where Did You Go? Theatre Program	
	On Track	On Track	

California Urban Water Conservation Council

**BEST
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FY 2009

&

FY 2010

Submitted by:

Ramona Municipal Water District

105 Earlham Street

Ramona CA 92065

www.rmwd.org

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California Urban Water Conservation Council

**BEST
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**2020 GPCD
TARGET CALCULATOR**

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Main Data

Input cells:
 Calculated cells:

Data Entry in acre-feet unless otherwise noted

Volume from Own Sources

Year	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOTAL (INPUT)	METER ADJUSTMENT (%)	CALCULATED TOTAL
2010															0.000
2009															0.000
2008															0.000
2007															0.000
2006															0.000
2005															0.000
2004															0.000
2003															0.000
2002															0.000
2001															0.000
2000															0.000
1999															0.000
1998															0.000
1997															0.000
1996															0.000
1995															0.000
1994															0.000
1993															0.000
1992															0.000
1991															0.000
1990															0.000

Volume from Imported Sources

Year	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL TOTAL (INPUT)	METER ADJUSTMENT (%)	CALCULATED TOTAL
2010													5,856.000		5,856.000
2009													7,432.000		7,432.000
2008													8,425.000		8,425.000
2007													11,890.000		11,890.000
2006													11,361.000		11,361.000
2005													10,179.000		10,179.000
2004													11,601.000		11,601.000
2003													10,944.000		10,944.000
2002													12,362.000		12,362.000
2001													10,801.000		10,801.000
2000													9,757.000		9,757.000
1999													6,101.000		6,101.000
1998													5,345.000		5,345.000



Population

Input cells:
Calculated cells:

Enter population data for the service area.

YEAR	POPULATION
2010	33,600
2009	32,861
2008	32,138
2007	31,431
2006	30,739
2005	30,063
2004	29,402
2003	28,755
2002	28,122
2001	27,504
2000	26,898
1999	26,307
1998	25,728
1997	25,162
1996	24,608
1995	24,067
1994	
1993	
1992	
1991	
1990	

Please note:
 The GPCD calculation is very sensitive to errors in population. Please review the guidance document *Methodologies for Calculating Baseline and Compliance Urban Per Capita Water Use* for additional information and direction in order to acquire the most accurate population estimates.

Population data are only required for years that contain water use data.
 If you see "<--Enter Population" this indicates you have entered water use data for this timeframe but not population. Please add population data to enable a calculation of GPCD and associated targets.

Average population, for the baseline period selected, in the GPCD Matrix worksheet

28,826



TARGETS / COMPLIANCE (SBx7-7)

Target Summary	2020	2015
Method 1	253.6	285.3
Method 2	N/A	N/A
Method 3	N/A	N/A
Method 4	0.0	0.0

Input cells:
 Calculated cells:

GPCD in 2010	155.6
Base daily per capita water use (10-15yr baseline)	317.0
Base daily per capita water use (5yr baseline)	332.4
Max. allowable GPCD target in 2020 (95% x 5yr baseline)	315.8

Base daily per capita water use (10-15yr baseline)
 Base daily per capita water use (5yr baseline)
 Max. allowable GPCD target in 2020 (95% x 5yr baseline)

Method 1: Baseline per Capita Water Use

80% x Base daily per capita water use (10-15yr baseline):

253.6

2015 Target: 285.3
 2020 Target: 253.6

Method 2: Performance Standards

TM 2 Indoor Water Use allowance: 0.0

TM 6 Landscaped Area Water Use: 0.0

TM 7 Baseline CII Water Use: 0.0

2015 Target: N/A
 2020 Target: N/A

Method 3: Hydrologic Region Targets

Enter the percentage of your service area population in each hydrologic region

Region	Region Name	% Population	GPCD Target
1	North Coast		137
2	San Francisco Bay		131
3	Central Coast		123
4	South Coast		149
5	Sacramento River		176
6	San Jacinto		174
7	Tulare lake		188
8	North Lahontan		173
9	South Lahontan		170
10	Colorado River		211
		0.0%	

2015 Target: N/A
 2020 Target: N/A

Method 4:

To be Developed

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California Urban Water Conservation Council

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BASE YEAR DATA

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The fields in red are required.



Agency name: Primary contact:
Reporting unit name (District name): First name:
Last name:
Reporting unit number: Email:

You must enter the reporting unit number that we have on record for your agency. Click here to open a table to obtain this number.

Base Year Data

[Link to FAQs](#)

Reporting Unit Base Year

Base Year

What is your reporting period?

BMP 1.3 Metering

Number of unmetered accounts in Base Year

BMP 3.1 & BMP 3.2 & BMP 3.3 Residential Programs

Number of Single Family Customers in Base Year

Number of Multi Family Units in Base Year

BMP 3.4 WaterSense Specification (WSS) Toilets

Number of Single Family Housing Units constructed prior to 1992

Number of Multi Family Units prior to 1992

Average number of toilets per single family household

Average number of toilets per multi family household

Five year average resale rate of single family households

Five-year average resale rate of multi family households

Average number of persons per single family household

Average number of persons per multi family household

BMP 4.0 & BMP 5.0 CII & Landscape

Total water use (in Acre Feet) by CII accounts

Number of accounts with dedicated irrigation meters

Number of CII accounts without meters or with Mixed Use Meters

Number of CII accounts

Comments:

(BLANK)

California Urban Water Conservation Council

**BEST
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FY 2009

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The fields in red are required.



Agency name: Primary contact: First name:

Reporting unit name (District name): Last name:

Reporting unit number: Email:

You must enter the reporting unit number that we have on record for your agency. Click here to open a table to obtain this number.

[Link to FAQs](#)

2009

BMP 1.1 Operations Practices

Comments:

[See the complete MOU:](#) [View MOU](#)

[See the coverage requirements for this BMP:](#)

Conservation Coordinator

Conservation Coordinator Yes No

Contact Information

First Name:

Last Name:

Title:

Phone:

Email:

Note that the contact information may be the same as the primary contact information at the top of the page. If this is your case, excuse the inconvenience but please enter the information again.

Water Waste Prevention

Water Agency shall do one or more of the following:

- a. Enact and enforce an ordinance or establish terms of service that prohibit water waste
- b. Enact and enforce an ordinance or establish terms of service for water efficient design in new development
- c. Support legislation or regulations that prohibit water waste
- d. Enact an ordinance or establish terms of service to facilitate implementation of water shortage response measures
- e. Support local ordinances that prohibit water waste
- f. Support local ordinances that establish permits requirements for water efficient design in new

To document this BMP, provide the following:

- a. A description of, or electronic link to, any ordinances or terms of service
- b. A description of, or electronic link to, any ordinances or requirements adopted by local jurisdictions or regulatory agencies with the water agency's service area.
- c. A description of any water agency efforts to cooperate with other entities in the adoption or enforcement of local requirement
- d. description of agency support positions with respect to adoption of legislation or regulations

You can show your documentation by providing files, links (web addresses), and/or entering a description.

File name(s): Email files to natalie@cuwcc.org

Web address(s) URL: comma-separated list

Enter a description:

Enter a description:

RMWD Legislative Code, Water Conservation, Chapter 7.40 - Level 2 Drought Alert was established in July of 2009, code prohibits water waste and establishes water shortage response measures

Supported San Diego County Outdoor Landscape Ordinance -

http://www.sdcounty.ca.gov/dplu/Landscape-Ordinance_Design_Review_Manual.html Design Legislation

Participate with the San Diego County Water Authority on a regional level by providing customer incentives and public outreach

Patty Bevers

From: Rafael Perez [Rafael@cuwcc.org] on behalf of Natalie Calkins [Natalie@cuwcc.org]
Sent: Thursday, August 25, 2011 1:55 PM
To: Patty Bevers
Subject: RE: APPROVED WATER CONSERVATION ORDINANCE.pdf - Adobe Acrobat Professional



Thank you for submitting your report:

Ramona MWD 2009 BMP 1.1 APPROVED WATER CONSERVATION ORDINANCE.pdf

Your information has been saved for the 2009-2010 BMP reporting period.

Please refer to our web page: BMP Coverage Reports 2009-2010

(<http://www.cuwcc.org/2column.aspx?id=16956>) for information about when and how to receive coverage reports.

From: Patty Bevers [<mailto:pbevers@rmwd.org>]
Sent: Wednesday, August 17, 2011 2:30 PM
To: Natalie Calkins
Subject: APPROVED WATER CONSERVATION ORDINANCE.pdf - Adobe Acrobat Professional

Natalie,

As instructed in BMP 1.1 Operations Practices, attached is a copy of the Ramona Municipal Water District's Water Conservation Ordinance.

Patty Bevers

Water Resources Specialist
Ramona Municipal Water District
760-789-1330

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EXHIBIT A

Legislative Code Chapter
7.40

RMWD CODE

Chapter 7.40
WATER CONSERVATION

Sections:

- 7.40.010 Declaration of Policy.
 - 7.40.020 Findings.
 - 7.40.030 Voluntary Guidelines.
 - 7.40.040 Drought Response Conservation Program.
 - 7.40.041 Violations and Penalties.
 - 7.40.042 Variance.
-

Section 7.40.010 Declaration of policy.

California Water Code Sections 375 *et seq.* and 71640 *et seq.*, authorizes municipal water districts to adopt water conservation measures in a comprehensive water conservation program to reduce the quantity of water used by the people for the purposes of conserving the water supplies of the District and of the State, 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 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. The District may also prohibit use of water during designated periods and for specific uses that it finds to be nonessential. Understanding that the community of Ramona wishes to utilize its limited water resources as efficiently as possible, all members of the Ramona community are encouraged to take steps to voluntarily reduce water consumption throughout the year regardless of whether drought conditions exist. The Board has established an effective cooperative Water Conservation program to provide resources and education to the public. Information about the program can be obtained by contacting the District office, or through the District's website.

The policy established herein is part of the Ramona Municipal Water District's comprehensive Water Conservation program pursuant to California Water Code Sections 375 *et seq.* and 71640 *et seq.*, based upon the need to conserve water supplies and to avoid or minimize the effects of any future shortage. The Board fully anticipates, encourages and appreciates the joint efforts between the District and the public to conserve water to protect water supplies.

This policy also establishes regulations to be implemented during times of declared water shortages, or declared water shortage emergencies. It establishes four levels of drought response actions ("Drought Response Levels") to be implemented in times of shortage, with increasing restrictions on water use in response to worsening drought conditions and decreasing available supplies. Drought Response Level 1 drought condition response measures are voluntary and will be reinforced through local and regional public education and awareness measures that may be funded in part by the District.

During Drought Response Levels 2 through 4, all conservation measures and water-use restrictions are mandatory and become increasingly restrictive in order to attain escalating

conservation goals. Violations of this Chapter are subject to criminal, civil, and administrative penalties and remedies specified in this Chapter 7.40 and as provided by law.

Section 7.40.020 Findings.

The District finds and determines the conditions prevailing in the Ramona Municipal Water District service area require water resources be put to maximum beneficial use, to every extent possible. The waste or unreasonable use of water must be prevented, and the conservation of water encouraged. The District's objective is to obtain the maximum reasonable and beneficial use of its water resources, to best serve the members of the community and to ensure public health, safety and welfare.

(02-244, Repealed & Replaced, 09/10/2002)

Section 7.40.030 Voluntary guidelines.

A. The following voluntary water conservation guidelines have been established to reduce overall water consumption, and preserve the District's water supply. The District encourages all customers to incorporate water conservation practices into their daily lifestyle, for enhancing the beneficial use of water resources.

1. Acknowledging that landscape irrigation is the single highest usage of water in single-family homes - about 60% of water used, the District establishes the following guidelines to conserve water for landscape and other outside use:

a. Water lawn and landscaping only during the cool parts of the day. Early morning is best, as it helps prevent the growth of fungus (watering may be done at any time with a bucket, a hand-held hose equipped with a positive shut-off nozzle, with drip irrigation or rotating nozzles);

b. Water lawn only when it needs it - step on the grass, if it springs up underfoot, it does not need water;

c. When watering the lawn, water it long enough to seep down into the roots, as surface watering will simply evaporate and be wasted;

d. Practice water-wise gardening by using drought tolerant and California-Friendly plants and trees;

e. Put a layer of mulch around trees and plants to slow the evaporation of moisture;

f. Delay new plantings until the cooler fall months, when plants need less water;

g. Water for several short periods instead of one long period, so the soil can absorb the moisture, without wasteful runoff;

h. Use a broom to clean off sidewalks, driveways, parking areas, tennis courts, patios or other paved areas;

i. Check for leaks in pipes, hoses, faucets and couplings; repair as soon as possible,

j. Use a hand-held bucket or a hand-held hose equipped with a positive shut-off nozzle when washing autos, trucks, trailers, boats, airplanes and other types of mobile equipment; and

k. Use untreated or recycled water for grading, if possible.

2. To conserve indoor water use:

a. Check toilet(s) for leaks. Put a few drops of food coloring in the toilet tank. If, without flushing, the coloring begins to appear in the bowl, the tank has a leak that may be wasting up to 100 gallons of water a day. Install a high-efficiency or an ultra low-flush toilet;

b. Take shorter showers. Limit showers to the time it takes to wash and rinse;

RMWD CODE

- c. Install water-saving shower heads or flow restrictors;
 - d. Take baths instead of showers. A partially filled tub uses less water than a shower;
 - e. Turn off the water while brushing teeth and shaving;
 - f. Check faucets and pipes for leaks;
 - g. Use automatic dishwashers only for full loads, as every load uses about 25 gallons of water;
 - h. Use automatic clothes washers only for full loads, as every load uses 30 to 35 gallons a cycle. Consider purchasing a High-Efficiency Washer (HEW), when replacing your clothes washer;
 - i. Do not let the faucet run while cleaning vegetables or when washing dishes, as rinsing can be done in a sink full of clean water;
 - j. Do not leave water running for rinsing when washing dishes by hand;
 - k. Serve water to restaurant customers only when specifically requested.
- (02-244, Repealed & Replaced, 09/10/2002)

Section 7.40.040 Drought Response Conservation Program.

A. Definitions

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

a. "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.

b. "Water Authority" means the San Diego County Water Authority.

c. "DMP" means the Water Authority's Drought Management Plan in existence on the effective date of this Chapter 7.40 and as readopted or amended from time to time, or an equivalent plan of the Water Authority to manage or allocate supplies during shortages.

d. "Metropolitan" means the Metropolitan Water District of Southern California.

e. "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 District.

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B. Application

(1) The provisions of Chapter 7.40 apply to any person in the use of any water provided by the District and proposed users of District water, as applicable.

~~(2) Chapter 7.40 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.~~

(3) Nothing in Chapter 7.40 is intended to affect or limit the ability of the District to declare and respond to an emergency, including an emergency that affects the ability of the District to supply water.

(4) The provisions of Chapter 7.40 do not apply to use of water from private wells or to recycled water.

(5) Unless otherwise specifically authorized in this Legislative Code, nothing in Chapter 7.40 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. A person using water subject to Metropolitan Interim Agricultural Water Program is subject to Chapter 7.41. Violations of the conditions of special supply programs are subject to the penalties established under the applicable program.

C. Drought Response Level 1 – Drought Watch Condition

(1) A Drought Response Level 1 condition is also referred to as a “Drought Watch” condition. A Level 1 condition applies 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. The General Manager may declare the existence of a Drought Response Level 1 and take action to implement the Level 1 conservation practices identified in this Section.

(2) During a Level 1 Drought Watch condition, District will increase its public education and outreach efforts to emphasize increased public awareness of the need to implement the following water conservation practices:

a. 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.

b. 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.

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- c. Irrigate residential and commercial landscape before 10 a.m. and after 6 p.m. only.
- d. Use a hand-held hose equipped with a positive shut-off nozzle or bucket to water landscaped areas, including trees and shrubs located on residential and commercial properties that are not irrigated by a landscape irrigation system.
- e. Irrigate nursery and commercial grower's 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 or rotating nozzles are used. Irrigation of nursery propagation beds is permitted at any time. Watering of livestock is permitted at any time.
- f. Use re-circulated water to operate ornamental fountains.
- g. 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.
- h. Serve and refill water in restaurants and other food service establishments only upon request.
- i. Offer guests in hotels, motels, and other commercial lodging establishments the option of not laundering towels and linens daily.
- j. Repair all water leaks within five (5) days of notification by the District unless other arrangements are made with the General Manager.
- k. Use recycled or non-potable water for construction purposes when available and feasible.

D. Drought Response Level 2- Drought Alert Condition

(1) A Drought Response Level 2 condition is also referred to as a "Drought Alert" condition. A Level 2 condition applies when the Water Authority notifies its member agencies, including the District, that due to cutbacks caused by drought or other reduction in supplies, a consumer demand reduction of up to twenty percent (20%) is required in order to have sufficient supplies available to meet anticipated demands. The District's Board of Directors may declare the existence of a Drought Response Level 2 condition and implement the mandatory Level 2 conservation measures identified in this Chapter 7.40.

(2) All District water use shall comply with Level 1 Drought Watch water conservation practices during a Level 2 Drought Alert and shall also comply with the following additional conservation measures:

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a. Limit residential and commercial landscape irrigation to no more than three (3) assigned days per week on a schedule established by the General Manager and posted by the District. During the months of November through May, landscape irrigation is limited to no more than once per week on a schedule established by the General Manager and posted by the District. ~~This section shall not apply to commercial growers or nurseries.~~

b. Limit lawn watering and landscape irrigation using sprinklers to no more than ten (10) minutes per watering station per assigned day. 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 rotating nozzles.

c. Water landscaped areas, including trees and shrubs located on residential and commercial properties, and not irrigated by a landscape irrigation system governed by Section D(2)(a) above, on the same schedule set forth in Section D(2)(a) above, by using a bucket, hand-held hose with positive shut-off nozzle, or low-volume non-spray irrigation.

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

e. Stop operating ornamental fountains or similar decorative water features unless recycled water is used.

(3) During a Drought Response Level 2 condition, the District Board of Directors may find that drought conditions are such that an emergency condition exists and may declare a Drought Emergency in the manner and on the grounds provided in California Water Code section 350. In the event of a declared Drought Emergency, no applications for new potable metered water service or upsizing of metered water service shall be accepted, no new temporary meters or permanent meters shall be provided and no new statements of ability to serve or provide potable water service (such as, will serve letters, certificates, or letters of availability, commitment letters, agency clearance forms, out-of-district potable water service agreements) shall be issued, except under the following circumstances:

- a. A valid, unexpired building permit has been issued for the project; or
- b. The project is necessary to protect the public's health, safety, and welfare; or
- c. The applicant provides substantial evidence of an enforceable commitment that water demands for the project will be offset prior to the provision of a new water meter(s) to the satisfaction of the District, in its sole discretion.

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

(4) The District may establish a water allocation for property served by the District using a method that does not penalize persons for the prior implementation of conservation methods or the installation of water saving devices. If the District establishes a water allocation,

the District shall provide notice of the allocation by including the allocation in the regular billing statement for the fee or charge or by any other mailing to the address to which the District customarily mails the billing statement for fees or charges for on-going water service. Following the effective date of the water allocation as established by the District, any person that uses the water in excess of the allocation shall be subject to a penalty equal to one and a half (1 1/2) times ~~the District's billing rate for each billing unit of water in excess of the allocation.~~ The penalty for excess water usage shall be cumulative to any other remedy or penalty that may be imposed for violation of this Chapter. For the purpose of assessing administrative fines pursuant to Chapter 7.40.041, each billing period in which an allocation is exceeded shall count as a separate violation. Subsequent violations that occur during a calendar year shall count cumulatively for the purpose of assessing administrative fines for second violations and additional violations.

E. Drought Response Level 3 – Drought Critical Condition

(1) A Drought Response Level 3 condition is also referred to as a “Drought Critical” condition. A Level 3 condition applies when the Water Authority notifies its member agencies that due to increasing cutbacks caused by drought or other reduction of supplies, a consumer demand reduction of up to forty percent (40%) is required in order to have sufficient supplies available to meet anticipated demands. The District Board of Directors may declare the existence of a Drought Response Level 3 condition and implement the Level 3 conservation measures identified in this policy.

(2) All District water use shall comply with Level 1 Drought Watch and Level 2 Drought Alert water conservation practices and measures during a Level 3 Drought Critical condition and shall also comply with the following additional mandatory conservation measures:

a. Limit residential and commercial landscape irrigation to no more than two (2) assigned days per week on a schedule established by the General Manager and posted by the District. During the months of November through May, landscape irrigation is limited to no more than once per week on a schedule established by the General Manager and posted by the District. This section shall not apply to commercial growers or nurseries.

b. Water landscaped areas, including trees and shrubs located on residential and commercial properties, and not irrigated by a landscape irrigation system governed by Section E(2)(a), on the same schedule set forth in Section E(2)(a) by using a bucket, hand-held hose with a positive shut-off nozzle, or low-volume non-spray irrigation.

c. 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 Drought response level under this Chapter 7.40.

d. Stop washing vehicles except at commercial carwashes that re-circulate water, or by high pressure/low volume wash systems.

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

(3) During a Drought Response Level 3 condition, the District Board of Directors may find that drought conditions are such that an emergency condition exists and may declare a ~~Drought Emergency in the manner and on the grounds provided in California Water Code section 350.~~ In the event of a declared Drought Emergency, no new potable water service shall be provided, no new temporary meters or permanent meters shall be provided and no applications for new potable metered water service or upsizing of metered water service shall be accepted, no new temporary meters or permanent meters shall be provided and no new statements of ability to serve or provide potable water service (such as, will serve letters, certificates, or letters of availability, commitment letters, agency clearance forms, out-of-district potable water service agreements) shall be issued, except under the following circumstances:

- a. A valid, unexpired building permit has been issued for the project; or
- b. The project is necessary to protect the public's health, safety, and welfare; or
- c. The applicant provides substantial evidence of an enforceable commitment that water demands for the project will be offset prior to the provision of a new water meter(s) to the satisfaction of the District, in its sole discretion.

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

(4) The District may establish a water allocation for property served by the District using a method that does not penalize persons for the prior implementation of conservation methods or the installation of water saving devices. If the District establishes a water allocation, the District shall provide notice of the allocation by including the allocation in the regular billing statement for the fee or charge or by any other mailing to the address to which the District customarily mails the billing statement for fees or charges for on-going water service. Following the effective date of the water allocation as established by the District, any person that uses the water in excess of the allocation shall be subject to a penalty equal to two (2) times the District's billing rate for each billing unit of water in excess of the allocation. The penalty for excess water usage shall be cumulative to any other remedy or penalty that may be imposed for violation of this Chapter. For the purpose of assessing administrative fines pursuant to Chapter 7.40.041, each billing period in which an allocation is exceeded shall count as a separate violation. Subsequent violations that occur during a calendar year shall count cumulatively for the purpose of assessing administrative fines for second violations and additional violations.

F. Drought Response Level 4- Drought Emergency Condition

(1) A Drought Response Level 4 condition is also referred to as a "Drought Emergency" condition. A Level 4 condition applies 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 forty percent (40%) percent in order for the Authority to have maximum supplies available to meet

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anticipated demands. Upon declaration by the Authority of a Drought Emergency Condition, the District may declare a Drought Emergency in the manner and on the grounds provided in California Water Code section 350 *et seq.*

(2) All District water use shall comply with conservation practices and measures required during Level 1 Drought Watch, Level 2 Drought Alert, and Level 3 Drought Critical conditions and shall also comply with the following additional mandatory conservation measures:

a. 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 District has determined that recycled water is available and may be lawfully applied to the use.

(i) Maintenance of trees and shrubs that are watered on the same schedule set forth in Section E(2)(a) by using a bucket, hand-held hose with a positive shut-off nozzle, or low-volume non-spray irrigation;

(ii) 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;

(iii) Maintenance of existing landscaping for erosion control;

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

(v) 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 E(2)(a) above;

(vi) Watering of livestock; and

(vii) Public works projects and actively irrigated environmental mitigation projects.

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

The District may establish a water allocation for property served by the District. If the 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 District customarily mails the billing statement for fees or charges for on-going water service. Following the effective date of the water allocation as established by the District, any person that uses water in excess of the allocation shall be subject to a penalty equal to three (3) times the

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District's billing rate for each billing unit of water in excess of the allocation. The penalty for excess water usage shall be cumulative to any other remedy or penalty that may be imposed for violation of this Chapter. For the purpose of assessing administrative fines pursuant to Chapter 7.40.041, each billing period in which an allocation is exceeded shall count as a separate violation. Subsequent violations that occur during a calendar year shall count cumulatively for the purpose of assessing administrative fines for second violations and additional violations.

G. Correlation Between Drought Management Plan and Drought Response Levels

(1) The correlation between the Water Authority's Drought Management Plan ("DMP") stages and the District Drought response levels identified in this Chapter is described herein. Under DMP Stage 1, the District may implement Drought Response Level 1 actions. Under DMP Stage 2, the District would implement Drought Response Level 1 or Level 2 actions. Under DMP Stage 3, the District may implement Drought Response Level 2, Level 3, or Level 4 actions.

The Drought Response Levels identified in this Chapter correspond with the Water Authority DMP as identified in the following table:

Drought Response Levels	Use Restrictions	Conservation Target DMP Stage
1 - Drought Watch	Voluntary	Up to 10% Stage 1 or 2
2 - Drought Alert	Mandatory	Up to 20% Stage 2 or 3
3 - Drought Critical	Mandatory	Up to 40% Stage 3
4 - Drought Emergency	Mandatory	Above 40% Stage 3 or 4

H. Procedures for Determination and Notification of Drought Response Level

(1) The existence of a Drought 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 District and provided to the District Board of Directors. The General Manager may publish a notice of the determination of existence of Drought Response Level 1 condition in one or more newspapers, including a newspaper of general circulation within the District. The District may also post notice of the condition on their website.

(2) The existence of Drought Response Level 2 or Level 3 conditions may be declared by resolution of the District Board of Directors adopted at a regular or special public meeting held in accordance with State law, including but not limited to Water Code section 350 *et seq.* The mandatory conservation measures applicable to Drought 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 District shall publish a copy of the resolution in a newspaper used for publication of official notices.

(3) The existence of a Drought Response Level 4 condition may be declared in accordance with the procedures specified in California Water Code sections 351 and 352. The

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mandatory conservation measures applicable to Drought 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 District shall publish a copy of the resolution in a newspaper used for publication of official notices. If the 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 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 General Manager may declare the end of Drought Response Level 1. The District Board of Directors may declare an end to a Drought Response Level by the adoption of a resolution at any regular or special meeting held in accordance with State law.

Section 7.40.041 Violations and Penalties.

A. **Violation of Chapter 7.40.** Any person, who uses, causes to be used, or permits the use of water in violation of this Chapter 7.40 is guilty of an offense punishable as provided herein.

B. **Separate Offense.** Each day that a violation of this Chapter 7.40 occurs is a separate offense.

C. **Administrative Fines.** Administrative fines may be levied for each violation of a provision of this Chapter 7.40 as follows:

1. One hundred dollars (\$100) for a first violation.
2. Two hundred dollars (\$200) for a second violation of any provision of this ordinance within one (1) calendar year.
3. Five hundred dollars (\$500) for each additional violation of this ordinance within one (1) calendar year.

D. Administrative Procedures for Imposing Fines.

1. **Notice of Violation.** If the District General Manager determines to impose a fine on a person ("violation") who has violated any provision of Chapter 7.40, he or she shall cause a written notice of the violation to be sent to the violator. The notice shall provide in sufficient detail the violation(s), the amount of the penalty being imposed, and the date or times by which the penalty shall be paid to the District. The notice shall notify the violator that the fine will be imposed in the violator's next water bill and that the violator may appeal the District's imposition of the fine in a writing within ten (10) calendar days of the date of said notice. Service of any notice required under this Section shall be made by the following means:

(1) personal service in the same manner as a summons in a civil action; or

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(2) registered United States mail, which service shall be completed at the time of deposit into the United States mail.

2. Appeal. Within ten (10) calendar days of the date of such notice from the District, the customer may appeal the proposed fine to the District within General Manager in a writing, ~~setting forth a description of the violation, any cure measures undertaken, the amount of the fine, the basis for the appeal, and the remedy sought.~~ The General Manager shall consider the appeal and shall issue a written decision to the appellant customer. If the customer fails to appeal the ten (10) calendar days period specified in the District's notice to the customer, the customer shall lose its right to appeal the District's fine.

3. Appeals to District Board of Directors. An applicant may appeal a decision of the General Manager on an appeal of an administrative fine to the District Board of Directors within ten (10) days of the decision upon written request for a hearing. The request shall state the grounds for the appeal. At a public meeting, the District Board of Directors shall act as the approval authority and review the appeal de novo (granting no deference to the prior decision of the General Manager). The decision of the District Board of Directors is final. The violator shall not be permitted to seek a variance pursuant to Section 7.40.042.

E. **Flow-Restricting Devices.** Violation of a provision of the mandatory provisions of this Chapter 7.40 is subject to enforcement through installation of a flow-restricting device in the meter.

F. **Misdemeanor.** Each violation of the mandatory provisions of this Chapter 7.40 may be prosecuted as a misdemeanor punishable by imprisonment in the county jail for not more than thirty (30) days.

G. **Discontinuation of Service.** Willful violations of the mandatory conservation measures and water use restrictions applicable during a declared Drought Emergency condition during either drought Response Levels 3 or 4 may be enforced by discontinuing service to the property at which the violation occurs as provided by Water Code section 356.

H. **Cumulative Remedies.** All remedies provided for herein shall be cumulative and not exclusive.

Section 7.40.042 Variance.

A. If a District conservation measure disproportionately impacts a District customer, 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 by the Board, only upon a written finding of the existence of facts demonstrating that the application of this Section 7.40 impacts a District customer in a manner that is disproportionate to the impacts to District water users generally or to similar property or classes of water use due to specific and unique circumstances of the user or the user's property.

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1. Application. Application for a variance shall be a form prescribed by District.

2. Supporting Documentation. The application shall be accompanied by documentation, such as but not limited to, water bills, invoices and receipts, , photographs, maps, drawings, and other information, including a written statement of the applicant demonstrating those water conservation measures undertaken by the applicant.

3. Required Findings for Variance. An application for a variance may be denied if it is found that, based on the information provided in the application, supporting documents, or such additional information as may be requested, and on water use information for the property as shown by the records of the District, all of the following:

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

(b) That because of special circumstances applicable to the property or its use, the strict application of Chapter 7.40 or Chapter 7.41 would have a disproportionate impact on the property or use that exceeds the impacts to customers generally.

(c) That the authorizing of such variance will not be of substantial detriment to adjacent properties, and will not materially affect the ability of the District to effectuate the purpose of this chapter and will not be detrimental to the public interest.

(d) That the condition or situation of the subject property or the intended use of the property for which the variance is sought is not common, recurrent or general in nature.

4. Approval Authority. The General Manager shall exercise approval authority and act upon any completed application no later than 10 days after submittal and may approve, conditionally approve, or deny the variance. The applicant requesting the variance shall be promptly notified in writing of any action taken. The variance shall specify the duration for which the variance applicable to the subject property shall apply.

C. Appeals to District Board of Directors. An applicant may appeal a decision or condition of the General Manager on a variance application to the District Board of Directors within ten (10) days of the decision upon written request for a hearing. The request shall state the grounds for the appeal. At a public meeting, the District Board of Directors shall act as the approval authority and review the appeal de novo (granting no deference to the prior decision of the General Manager) by following the variance procedure delineated in Section 7.40.042(A) through (B)(1)-(4) above. The decision of the District Board of Directors is final.

The fields in red are required.

Primary contact:

Agency name: Ramona Municipal Water District

First name: Patty

Reporting unit name (District name): Ramona Municipal Water District

Last name: Bevers

Reporting unit number: 187

Email: pbevers@rmwd.org

You must enter the reporting unit number that we have on record for your agency. Click here to open a table to obtain this number.



[Link to FAQs](#)

2009 BMP 1.2 Water Loss Control

[View MOU](#)

AWWA Water Audit

Agency to complete a Water Audit & Balance Using The AWWA Software Yes No
Email to natalie@cuwcc.org - Worksheets (AWWA Water Audit). Enter the name of the file below:

Water Audit Validity Score from AWWA spreadsheet

Agency Completed Training In The AWWA Water Audit Method Yes No

Agency Completed Training In The Component Analysis Process Yes No

Completed/Updated the Component Analysis (at least every 4 years)? Yes No

Component Analysis Completed/Updated Date

Water Loss Performance

Agency Repaired All Reported Leaks & Breaks To The Extent Cost Effective Yes No

Recording Keeping Requirements:

Date/Time Leak Reported	Leak Location
Type of Leaking Pipe Segment or Fitting	Leak Running Time From Report to Repair
Leak Volume Estimate	Cost of Repair

Agency Located and Repaired Unreported Leaks to the Extent Cost Effective Yes No

Type of Program Activities Used to Detect Unreported Leaks

Annual Summary Information

Complete the following table with annual summary information (required for reporting years 2-5 only)

Total Leaks Repaired	Economic Value Of Real Loss	Economic Value Of Apparent Loss	Miles Of System Surveyed For Leaks	Pressure Reduction Undertaken for loss reduction	Cost Of Interventions	Water Saved (AF/Year)
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Comments:

The fields in red are required.



Agency name: Ramona Municipal Water District
Reporting unit name (District name): Ramona Municipal Water District
Reporting unit number: 187

Primary contact:
First name: Patty
Last name: Bevers
Email: pbevers@rmwd.org

You must enter the reporting unit number that we have on record for your agency. Click here to open a table to obtain this number.

[Link to FAQs](#)

[View MOU](#)

2009 BMP 1.2 Water Loss Control

Did your agency complete a pre-screening system audit in 2009? Yes No

If yes, answer the following:

Determine metered sales in AF:

Definition: other accountable uses not included in metered sales, such as unbilled water use, fire suppression, etc.

→ Determine system verifiable uses AF:

Determine total supply into the system in AF:

Does your agency keep necessary data on file to verify the answers above? Yes No

Did your agency complete a full-scale system water audit during 2009? Yes No

Does your agency maintain in-house records of audit results or the completed AWWA worksheet for the completed audit which could be forwarded to CUWCC? Yes No

Did your agency operate a system leak detection program? Yes No

Comments:

The fields in red are required.

Agency name: Ramona Munic. Water District
Reporting unit name (District name): Ramona Municipal Water District
Reporting unit number: 187

Primary contact:
First name: Patty
Last name: Bevers
Email: pbevers@rmwd.org

You must enter the reporting unit number that we have on record for your agency. Click here to open a table to obtain this number.



BMP 1.3 Metering with Commodity

[Link to FAQs](#)

See the complete MOU: [View MOU](#)

See the coverage requirements for this BMP:

Implementation

- Does your agency have any unmetered service connections? Yes No
- If YES, has your agency completed a meter retrofit plan? Yes No
- Enter the number of previously unmetered accounts fitted with meters during reporting year:
- Are all new service connections being metered? Yes No
- Are all new service connections being billed volumetrically? Yes No
- Has your agency completed and submitted electronically to the Council a written plan, policy or program to test, repair and replace meters? Yes No

Please Fill Out The Following Matrix

Account Type	# Metered Accounts	# Metered Accounts Read	# Metered Accounts Billed by Volume	Billing Frequency Per Year	# of estimated bills/yr
Single-Family	8,544	8,544	8,544	Bi-monthly	0
Multi-Family	107	107	107	Bi-monthly	0
Commercial	334	334	334	Bi-monthly	0
Industrial	0	0	0	Other	0
Institutional	66	66	66	Bi-monthly	0
Dedicated Irrigatic	16	16	0	Other	0
Agricultural	314	314	314	Monthly	0
Fire Lines	73	73	73	Bi-monthly	0
System Flushing	0	0	0	Other	0
Other	23	23	39	Monthly	0

Number of CII Accounts with Mixed-use Meters

Number of CII Accounts with Mixed-use Meters Retrofitted with Dedicated Irrigation Meters during Reporting Period

Feasibility Study

Has your agency conducted a feasibility study to assess the merits of a program to provide incentives to switch mixed-use accounts to dedicated landscape meters? Yes No

If YES, please fill in the following information:

A. When was the Feasibility Study conducted

B. Email or provide a link to the feasibility study (or description of):

File name(s): Email files to natalie@cuwcc.org

Web address(s) URL: comma-separated list

General Comments about BMP 1.3:

The fields in red are required.

Agency name: Ramona Municipal Water District

Primary contact:

First name: Patty

Reporting unit name (District name): Ramona Municipal Water District

Last name: Bevers

Reporting unit number: 187

Email: pbevers@rmwd.org

You must enter the reporting unit number that we have on record for your agency. Click here to open a table to obtain this number.



2009

BMP 1.4 Retail Conservation Pricing

[Link to FAQs](#)

[View MOU](#)

If you are reporting more rate structures than this form allows, add the structures to a spreadsheet and send the file to natalie@cuwcc.org.

Implementation (Water Rate Structure)

Enter the Water Rate Structures that are assigned to the majority of your customers, by customer class

Rate Structure	Customer Class	Total Revenue	Commodity Charges	Total Revenue Customer Meter/Service (Fixed Charges)
Uniform	Single-Family	5,900,211.00		1,344,101.00
Uniform	Multi-Family	572,243.00		130,360.00
Uniform	Commercial	1,276,797.00		290,862.00
Uniform	Agricultural	2,565,896.00		584,526.00
Uniform	Other	9,122.00		
Select a Rate Struc	Other			
Select a Rate Struc	Other			

Implementation Option (Conservation Pricing Option)

- Use Annual Revenue As Reported
- Use Canadian Water & Wastewater Association Rate Design Model

If CWWA is select, enter the file name and email the spreadsheet to natalie@cuwcc.org

Retail Waste Water (Sewer) Rate Structure by Customer Class

Agency Provide Sewer Service

Yes No

Select the Retail Waste Water(Sewer) Rate Structure assigned to the majority of your customers within a specific customer class.

Rate Structure	Customer Class	Total Revenue	Commodity Charges	Total Revenue Customer Meter/Service (Fixed Charges)
Uniform	Other	0.00		3,614,352.00
Select a Rate Struc	Other			
Select a Rate Struc	Other			
Select a Rate Struc	Other			
Select a Rate Struc	Other			
Select a Rate Struc	Other			
Select a Rate Struc	Other			

Comments:

Sewer charges based on equivalent dwelling units, \$475 for one sewer plant and \$4



Comments:

Sewer charges based on equivalent dwelling units, \$475 for one sewer plant and \$459 for the other. A single family home would be one sewer EDU, commercial and institutional would be based on the number of sinks and toilets and the use of the facility.



Agency name:
 Primary contact: First name:

Reporting unit name (District name):
 Last name:

Reporting unit number:
 Email:

Click here to open a table that displays your agency name reporting unit name and reporting unit number. Please ensure that you enter the correct information.

[Link to FAQs](#)

2009

BMP 2.1 Public Outreach - Retail Reporting

[View MOU](#)

Is a Wholesale Agency Performing Public Outreach?

Are there one or more wholesale agencies performing public outreach which can be counted to help your agency comply with the BMP?

Yes No

Enter the name(s) of the wholesale agency (comma delimited)

San Diego County Water Authority, Metropolitan Water District

Is your agency performing public outreach?

Report a minimum of 4 water conservation related contacts your agency had with the public during the year.

Public Information Programs List

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

Number of Public Contacts	Public Information Programs
106,000	Flyers and/or brochures (total copies), bill stuffers, messages printed on bill, information packets
9,000	General water conservation information
10	Website
300	Email Messages
13	Landscape water conservation media campaigns

Contact with the Media

Are there one or more wholesale agencies performing media outreach which can be counted to help your agency comply with the BMP?

Yes No

Enter the name(s) of the wholesale agency (comma delimited)

San Diego County Water Authority, Metropolitan Water District

OR Retail Agency (Contacts with the Media)

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

Media Contacts List

Number of Media Contacts	Did at least one contact take place during each quarter of the reporting year?	Media Contact Types
5		Articles or stories resulting from outreach
4		News releases
70		Newspaper contacts
		Select a type of media contact
		Select a type of media contact
		Select a type of media contact

Is a Wholesale Agency Performing Website Updates?

Did one or more CUWCC wholesale agencies agree to assume your agency's responsibility for meeting the requirements of and for CUWCC reporting of this BMP? Yes No

Enter the name(s) of the wholesale agency (comma delimited)

Is Your Agency Performing Website Updates?

Enter your agency's URL (website address):

<http://www.rmwd.org/>

Describe a minimum of four water conservation related updates to your agency's website that took place during the year:

- 01/09 "Save Water Now"
- 02/09 Drought Information
- 05/09 News Release
- 06/09 General Manager's Letter

Did at least one Website Update take place during each quarter of the reporting year? Yes No

Public Outreach Annual Budget

Enter budget for public outreach programs. You may enter total budget in a single line or break the budget into discrete categories by entering many rows. Please indicate if personnel costs are included in the entry.

Category	Amount	Personnel Costs Included? <small>If yes, check the box.</small>	Comments
	\$16,000	<input type="checkbox"/>	Total budget
		<input type="checkbox"/>	

Comments:

The fields in red are required.



Agency name: Primary contact:
 Reporting unit name: First name:
 (District name) Last name:
 Reporting unit number: Email:

Click here to open a table that displays your agency name reporting unit name and reporting unit number. Please ensure that you enter the correct information.

[Link to FAQs](#)

2009

BMP 2.1 Public Outreach Cont'd

[View MOU](#)

Public Outreach Expenses

Enter expenses for public outreach programs. Please include the same kind of expenses you included in the question related to your budget (Section 2.1.7, above). For example, if you included personnel costs in the budget entered above, be sure to include them here as well.

Expense Category	Expense Amount	Personnel Costs Included?
Product Incentives	\$11,371	<input type="checkbox"/> <i>If yes, check the check box.</i>
Direct Mail Letters	\$3,217	<input type="checkbox"/>
Customer Giveaways	\$1,075	<input type="checkbox"/>
Landscape Contest	\$530	<input type="checkbox"/>

Additional Public Information Program

Please report additional public information contacts. List these additional contacts in order of how your agency views their importance / effectiveness with respect to conserving water, with the most important/ effective listed first (where 1 = most important).

Were there additional Public Outreach efforts?

Yes No

Public Outreach Additional Information

Public Information Programs	Importance
Water bill inserts with conservation/drought information	<input type="text"/>
Water bill usage comparison with same period of previous year	<input type="text"/>
Speakers to employee group, community and professional organizations	<input type="text"/>

Social Marketing Programs

Branding

Does your agency have a water conservation "brand," "theme" or mascot? Yes No

Describe the brand, theme or mascot.

Market Research

Have you sponsored or participated in market research to refine your message? Yes No

Market Research Topic

Brand Message

Brand Mission Statement

Community Committees

Do you have a community conservation committee?

Yes No

Enter the names of the community committees:

--

Training

Training Type	# of Trainings	# of Attendees	Description of Other
Landscape Workshops	\$5	\$318	Water-wise landscape classes

Social Marketing Expenditures

Public Outreach Social Marketing Expenses

Expense Category	Expense Amount	Description
Landscape Workshops	\$1420	Workshop flyers & supplies

Partnering Programs - Partners

Name

Type of Program

CLCA?

Green Building Programs?

Master Gardeners?

Cooperative Extension?

Local Colleges?

Other

The Water Conservation Garden at Cuyamaca College

Retail and wholesale outlet; name(s) and type(s) of programs:

--	--

Partnering Programs - Newsletters

Number of newsletters per year

0

Number of customers per year

0

Partnering with Other Utilities

Describe other utilities your agency partners with, including electrical utilities

San Diego County Water Authority, Metropolitan Water District, San Diego Gas & Electric

Conservation Gardens

Describe water conservation gardens at your agency or other high traffic areas or new

The Water Conservation Garden at Cuyamaca College (Garden Partner sponsor)

Landscape contests or awards

Describe water wise landscape contest or awards program conducted by your agency

A local water-wise landscape contest was held in the Spring of 2009. Finalists were submitted to the regional water-wise landscape contest. The regional contest was conducted by the San Diego County Water Authority and other local water agencies.

Comments:

The fields in red are required.

Primary contact:

Agency name: **San Diego County Water Authority** First name:

Reporting unit name (District name) Last name:

Reporting unit number: Email:

Click here to open a table that displays your agency name reporting unit name and reporting unit number. Please ensure that you enter the correct information.



[Link to FAQs](#)

[View MOU](#)

2009

BMP 2.1 Public Outreach

Is your agency performing Public Outreach for your Retailers?

Are there one or more retail agencies that count on your agency to help them comply with this BMP?

Yes No

Enter the name(s) of the retail agency (comma delimited)

Carlsbad MWD, City of Del Mar Water Utilities, City of Escondido Utilities Administration, Fallbrook P.U.D., Helix Water District, Lakeside Water District, City of Oceanside Water Utilities, Olivenhain Municipal Water District, Otay

Is your agency performing public outreach?

Report a minimum of 4 water conservation related contacts your agency had with the public during the year.

Public Information Programs List

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

Number of Public Contacts	Public Information Programs
20	Newsletter articles on conservation
2,197,500	Flyers and/or brochures (total copies), bill stuffers, messages printed on bill, information packets
65	General water conservation information
34	Website
1	Landscape water conservation media campaigns

Contact with the Media Are there one or more retail agencies that count on your agency to help them comply with this BMP?

Yes No

Enter the name(s) of the retail agency (comma delimited)

Carlsbad MWD, City of Del Mar Water Utilities, City of Escondido Utilities Administration, Fallbrook P.U.D., Helix Water District, Lakeside Water District, City of Oceanside Water Utilities, Olivenhain Municipal Water

OR Wholesale Agency (Contacts with the Media)

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

Media Contacts List

Number of Media Contacts	Did at least one contact take place during each quarter of the reporting year?	Media Contact Types
17		News releases
77		Articles or stories resulting from outreach
5		Written editorials
1,649		Newspaper contacts
136		Radio contacts
323		Television contacts

The fields in red are required.



Agency name: Ramona Municipal Water District
Reporting unit name (District name): Ramona Municipal Water District
Reporting unit number: 187

Primary contact:
First name: Patty
Last name: Bevers
Email: pbevers@rmwd.org

Click here to open a table that displays your agency name reporting unit name and reporting unit number. Please ensure that you enter the correct information.

2009

Link to FAQs

BMP 2.2 School Education Programs, Retail Agencies

View MOU

School Programs

Is a wholesale agency implementing school programs which can be counted to help your agency comply with this BMP? Yes No

Enter Wholesaler Names, separated by commas: San Diego County Water Authority, Metropolitan Water District

Materials meet state education framework requirements?

Description of Materials: 3rd & 4th grade history video/dvd, "Give Water a Second Chance...Re-cycle it!" for 5th grade, Be Water Smart DVD, Water Quality Testing Kit for high school science teachers' classroom use, Water Science in a Box for 1st, 2nd and 3rd grades, "Watersheds, Water & You" student workbook for 5th grade, Water Works! school-to-career curriculum, Water Smart garden curriculum.

Materials distributed to K-6 Students?

Description of materials distributed to K-6 Students: 3rd & 4th grade history video/dvd, "Give Water a Second Chance...Recycle it!" booklet for 5th grade, Be Water Smart DVD for 4th-6th grades, Water Science in a Box for grades 1st, 2nd and 3rd

Number of students reached: 1,020

Materials distributed to 7-12 Students?

Description of materials distributed to 7-12 Students: Water quality testing kits to high school science teachers for use in their classrooms

Number of Distribution: 0

Annual budget for school education program: \$1,000.00

Description of all other water supplier education programs: Traveling Library Program, Youth and Scout Patch Program, 20-Gallon Challenge Student Pledge Contest, Splash Science Mobile Lab, H2O Where Did You Go? Theatre Program

School Program Activities

Classroom presentations:

Number of presentations: 17
Number of attendees: 413

Large group assemblies:

Number of presentations: 0
Number of attendees: 0

Children's water festivals or other events:

Number of presentations: 0
Number of attendees: 0

Cooperative efforts with existing science/water education programs (various workshops, science fair awards or judging) and follow-up:

Number of presentations: 0
Number of attendees: 0

Other methods of disseminating information (i.e. themed age-appropriate classroom loaner kits):

Description		
Number distributed	0	
Staffing children's booths at events & festivals:		
Number of booths	1	Number of attendees 100
Water conservation contests such as poster and photo:		
Description	4th Grade Poster Contest	
Number distributed	700	
Offer monetary awards/funding or scholarships to students:		
Number Offered	0	Total Funding 0
Teacher training workshops:		
Number of presentations	1	Number of attendees 1
Fund and/or staff student field trips to treatment facilities, recycling facilities, water conservation gardens, etc.:		
Number of tours or field trips	0	Number of participants 0
College internships in water conservation offered:		
Number of internships	0	Total funding 0
Career fairs/workshops:		
Number of presentations	0	Number of attendees 0
Additional program(s) supported by agency but not mentioned above:		
Description	SDCWA Traveling Library Display	
Number of events (if applicable)	1	Number of participants 587
Total reporting period budget expenditures for school education programs (include all agency costs):		711

Comments

Classroom and group presentations, as well as, teacher training workshops provided by San Diego County Water Authority.

Ramona Municipal Water District

Section A: Presentations, Assemblies, Splash Lab, and Traveling Library Display

Program	School	Date	Number of Classes	Number of Students
3rd Grade Traveling Library Presentation	Dukes, James, Elementary	4/21/2009	10	213
Totals:				
5th Grade Weather and Water Presentation	Mt. Woodson Elementary	12/3/2008	3	105
	Ramona Community School	1/30/2009	1	25
	Ramona Elementary	1/30/2009	3	90
Totals:				
Traveling Library - Display	Dukes, James, Elementary	4/20/2009	0	587
Totals:				

119
17
1080-00

Ramona Municipal Water District
Section B: Inservices, Workshops, Curriculum, Other Materials

Program	School	Date	Number of Teachers
Xeriscape - Workshop	Hanson Lane Elementary	4/30/2009	1
Total:			1

Please Note:

This report includes MWD curriculum that was delivered by the Water Authority and requests for curriculum that the Water Authority forwarded to MWD. It does not include curriculum requests that were sent directly to MWD.

The fields in red are required.

Primary contact:

Agency name: San Diego County Water Authority

First name: Lori

Click here to open a table that displays your agency name reporting unit name and reporting unit number. Please ensure that you enter the correct information.

Reporting unit name (District name): San Diego County Water Authority

Last name: Swanson

Reporting unit number: 196

Email: lswanson@sdcwa.org



[Link to FAQs](#)

2009

BMP 2.2 School Education Programs School Programs

[View MOU](#)

Is your agency implementing school programs which can be counted to help another agency comply with this BMP?

Yes No

Enter retailer names, separated by commas:

Carlsbad MWD, City of Del Mar Water Utilities, City of Escondido Utilities Administration, Fallbrook P.U.D., Heix Water District, Lakeside Water District, City of Oceanside Water Utilities, Olivenhain Municipal Water District, Otay Water District, Padre Dam MWD, Camp Pendleton, Marine Corps Base, City of Poway Water Utilities, Rancho Municipal Water District, Ramona Municipal Water District, Rhoads del Norte Municipal Water District, City of San Diego Water Department, San Diego Water District, San Felipe Irrigation District, Sweetwater Authority, Vail Valley Water District, Vista Center Municipal Water District, Vista Irrigation District, Yuima Municipal Water District

Materials meet state education framework requirements?

Description of Materials

3rd & 4th grade history video/dvd, "Give Water a Second Chance...Re-cycle it!" for 5th grade, Be Water Smart DVD, Water Quality Testing Kit for high school science teachers' classroom use, Water Science in a Box for 1st, 2nd and 3rd grades, "Watersheds, Water & You" student workbook for 5th grade, Water Works! school-to-career curriculum, Water Smart garden curriculum.

Materials distributed to K-6 Students?

Description of materials distributed to K-6 Students

3rd & 4th grade history video/dvd, "Give Water a Second Chance...Recycle it!" booklet for 5th grade, Be Water Smart DVD for 4th-6th grades, Water Science in a Box for grades 1st, 2nd and 3rd

Number of students reached

13,400

Materials distributed to 7-12 Students?

Description of materials distributed to 7-12 Students

Water quality testing kits to high school science teachers for use in their classrooms -- 13 science teachers trained reaching 1,009 students

Number of Distribution

30

Annual budget for school education program

\$450,500.00

Description of all other water supplier education programs

Traveling Library Program, Youth and Scout Patch Program, 20-Gallon Challenge Student Pledge Contest, Splash Science Mobile Lab, H2O Where Did You Go? Theatre Program

School Program Activities

Classroom presentations:

Number of presentations: 393

Number of attendees: 10,868

Large group assemblies:

Number of presentations: 37

Number of attendees: 19,154

Children's water festivals or other events:

Number of presentations: 1 high school

Number of attendees: 950

Cooperative efforts with existing science/water education programs (various workshops, science fair awards or judging) and follow-up:

Number of presentations: 90

Number of attendees: 3,150

Other methods of disseminating information (i.e. themed age-appropriate classroom loaner kits):

Description	n/a	
Number distributed	n/a	
Staffing children's booths at events & festivals:		
Number of booths	n/a	Number of attendees
		n/a
Water conservation contests such as poster and photo:		
Description	20-Gallon Challenge Student Pledge Contest (marketing brochure drives students to website to sign up) drawings held for prizes.	
Number distributed	15,000 Marketing Brochures	
Offer monetary awards/funding or scholarships to students:		
Number Offered	6	Total Funding
		\$1,200
Teacher training workshops:		
Number of presentations	7 WaterSmart Drinking Workshops and 2 Engage4H	Number of attendees
		100 (70 WaterSmart & 30 Water Quality)
Fund and/or staff student field trips to treatment facilities, recycling facilities, water conservation gardens, etc.:		
Number of tours or field trips	n/a	Number of participants
		n/a
College internships in water conservation offered:		
Number of internships	1	Total funding
		\$15,000
Career fairs/workshops:		
Number of presentations	n/a	Number of attendees
		n/a
Additional program(s) supported by agency but not mentioned above:		
Description	Reuben H. Fleet Science Center - 331,000 visitors/year reaching water exhibit = approx 20 % or 66,200	
Number of events (if applicable)	voluntary display at the Reuben H. Fleet Science Center	Number of participants
		66,200
Total reporting period budget expenditures for school education programs (include all agency costs):		\$450,500

Comments

The San Diego County Water Authority provided partial funding for 18 schools which were reached by the Splash Science MC

California Urban Water Conservation Council

**BEST
MANAGEMENT
PRACTICES
REPORT**

FY 2010

(BLANK)

The fields in red are required.



Agency name: Primary contact: First name:

Reporting unit name (District name): Last name:

Reporting unit number: Email:

You must enter the reporting unit number that we have on record for your agency. Click here to open a table to obtain this number.

[Link to FAQs](#)

2010

BMP 1.1 Operations Practices

Comments:

[See the complete MOU:](#) [View MOU](#)

[See the coverage requirements for this BMP:](#)

Conservation Coordinator

Conservation Coordinator Yes No

Contact Information

First Name:

Last Name:

Title:

Phone:

Email:

Note that the contact information may be the same as the primary contact information at the top of the page. If this is your case, excuse the inconvenience but please enter the information again.

Water Waste Prevention

Water Agency shall do one or more of the following:

- a. Enact and enforce an ordinance or establish terms of service that prohibit water waste
- b. Enact and enforce an ordinance or establish terms of service for water efficient design in new development
- c. Support legislation or regulations that prohibit water waste
- d. Enact an ordinance or establish terms of service to facilitate implementation of water shortage response measures
- e. Support local ordinances that prohibit water waste
- f. Support local ordinances that establish permits requirements for water efficient design in new

To document this BMP, provide the following:

- a. A description of, or electronic link to, any ordinances or terms of service
- b. A description of, or electronic link to, any ordinances or requirements adopted by local jurisdictions or regulatory agencies with the water agency's service area.
- c. A description of any water agency efforts to cooperate with other entities in the adoption or enforcement of local requirement
- d. description of agency support positions with respect to adoption of legislation or regulations

You can show your documentation by providing files, links (web addresses), and/or entering a description.

File name(s): Email files to natalie@cuwcc.org

Web address(s) URL: comma-separated list

Enter a description:

Enter a description:

RMWD Legislative Code, Water Conservation, Chapter 7.40 - Level 2 Drought Alert was established in July of 2009, code prohibits water waste and establishes water shortage response measures

Supported San Diego County Outdoor Landscape Ordinance -

http://www.sdcounty.ca.gov/dplu/Landscape-Ordinance_Design_Review_Manual.html Design Legislation

Participate with the San Diego County Water Authority on a regional level by providing customer incentives and public outreach

The fields in red are required.

Primary contact:

Agency name: Ramona Municipal Water District

First name: Patty

Reporting unit name (District name): Ramona Municipal Water District

Last name: Bevers

Reporting unit number: 187

Email: pbevers@rmwd.org

You must enter the reporting unit number that we have on record for your agency. Click here to open a table to obtain this number.



[Link to FAQs](#)

[View MOU](#)

2010 BMP 1.2 Water Loss Control

AWWA Water Audit

Agency to complete a Water Audit & Balance Using The AWWA Software Yes No
Email to natalie@cuwcc.org - Worksheets (AWWA Water Audit). Enter the name of the file below:

RMWD_187_FY2010_AWWA.XLS

Water Audit Validity Score from AWWA spreadsheet: 73

Agency Completed Training In The AWWA Water Audit Method Yes No

Agency Completed Training In The Component Analysis Process Yes No

Completed/Updated the Component Analysis (at least every 4 years)? Yes No

Component Analysis Completed/Updated Date: []

Water Loss Performance

Agency Repaired All Reported Leaks & Breaks To The Extent Cost Effective Yes No

Recording Keeping Requirements:

Date/Time Leak Reported	Leak Location
Type of Leaking Pipe Segment or Fitting	Leak Running Time From Report to Repair
Leak Volume Estimate	Cost of Repair

Agency Located and Repaired Unreported Leaks to the Extent Cost Effective Yes No

Type of Program Activities Used to Detect Unreported Leaks

[]

Annual Summary Information

Complete the following table with annual summary information (required for reporting years 2-5 only)

Total Leaks Repaired	Economic Value Of Real Loss	Economic Value Of Apparent Loss	Miles Of System Surveyed For Leaks	Pressure Reduction Undertaken for loss reduction	Cost Of Interventions	Water Saved (AF/Year)
[]	[]	[]	[]	[]	[]	[]

Comments:

[]

AWWA Water Loss Control Committee (WLCC) Free Water Audit Software v4.2

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WAS v4.2

PURPOSE: This spreadsheet-based water audit tool is designed to help quantify and track water losses associated with water distribution systems and identify areas for improved efficiency and cost recovery. It provides a "top-down" summary water audit format, and is not meant to take the place of a full-scale, comprehensive water audit format.

USE: The spreadsheet contains several separate worksheets. Sheets can be accessed using the tabs towards the bottom of the screen, or by clicking the buttons on the left below. Descriptions of each sheet are also given below.

THE FOLLOWING KEY APPLIES THROUGHOUT:

Value can be entered by user

Value calculated based on input data

These cells contain recommended default values

Please begin by providing the following information, then proceed through each sheet in the workbook.

NAME OF CITY OR UTILITY: COUNTRY:

REPORTING YEAR: START DATE (MM/YYYY): END DATE (MM/YYYY):

NAME OF CONTACT PERSON: E-MAIL: TELEPHONE: Ext.

PLEASE SELECT PREFERRED REPORTING UNITS FOR WATER VOLUME:

Click to advance to sheet.

Click here: for help about units and conversions

- [Instructions](#)
- [Reporting Worksheet](#)
- [Water Balance](#)
- [Grading Matrix](#)
- [Service Connections](#)
- [Definitions](#)
- [Loss Control Planning](#)

The current sheet

Enter the required data on this worksheet to calculate the water balance

The values entered in the Reporting Worksheet are used to populate the water balance

Depending on the confidence of audit inputs, a grading is assigned to the audit score

Diagrams depicting possible customer service connection configurations

Use this sheet to understand terms used in the audit process

Use this sheet to interpret the results of the audit validity score and performance indicators

Comments:

Add comments here to track additional supporting information, sources or names of participants

If you have questions or comments regarding the software please contact us at: wlc@awwa.org

[Click to access definition](#)

Water Audit Report for: **RAMONA MUNICIPAL WATER DISTRICT**
 Reporting Year: **FY 2010** 7/2009 - 6/2011

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 (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

WATER SUPPLIED

<< Enter grading in column 'E'

Volume from own sources:	6	729,000	acre-ft/yr
Master meter error adjustment (enter positive value):	2		acre-ft/yr
Water imported:	8	7,193,900	acre-ft/yr
Water exported:	n/a	0,000	acre-ft/yr
WATER SUPPLIED:		7,922,900	acre-ft/yr

AUTHORIZED CONSUMPTION

Billed metered:	6	7,279,000	acre-ft/yr
Billed unmetered:	n/a	0,000	acre-ft/yr
Unbilled metered:	n/a	0,000	acre-ft/yr
Unbilled unmetered:	5	99,036	acre-ft/yr
Default option selected for Unbilled unmetered - a grading of 5 is applied but not displayed			
AUTHORIZED CONSUMPTION:		7,378,036	acre-ft/yr

Click here: [?](#) for help using option buttons below

Pcnt: 1.25 Value:

Use buttons to select percentage of water supplied OR value

WATER LOSSES (Water Supplied - Authorized Consumption) **544,864** acre-ft/yr

Apparent Losses

Unauthorized consumption:	5	19,807	acre-ft/yr
Default option selected for unauthorized consumption - a grading of 5 is applied but not displayed			
Customer metering inaccuracies:	n/a	0,000	acre-ft/yr
Systematic data handling errors:	5	100,000	acre-ft/yr
Apparent Losses:		119,807	

Pcnt: 0.25 Value:

Enter a percentage less than 10% in the red cell (.J42), or select 'Value' option

Real Losses (Current Annual Real Losses or CARL)

Real Losses = Water Losses - Apparent Losses:	7	425,057	acre-ft/yr
WATER LOSSES:		544,864	acre-ft/yr

NON-REVENUE WATER

NON-REVENUE WATER:	7	643,900	acre-ft/yr
= Total Water Loss + Unbilled Metered + Unbilled Unmetered			

SYSTEM DATA

Length of mains:	6	209.0	miles
Number of active AND inactive service connections:	6	9,469	
Connection density:		45	conn./mile main
Average length of customer service line:	10	0.0	ft (pipe length between curbside and customer meter or property boundary)
Average operating pressure:	6	135.0	psi

COST DATA

Total annual cost of operating water system:	10	\$16,281,729	\$/Year
Customer retail unit cost (applied to Apparent Losses):	4	\$3.59	\$/100 cubic feet (ccf)
Variable production cost (applied to Real Losses):	10	\$1,081.55	\$/acre-ft

PERFORMANCE INDICATORS

Financial Indicators

Non-revenue water as percent by volume of Water Supplied:	8.11
Non-revenue water as percent by cost of operating system:	4.61
Annual cost of Apparent Losses:	\$187,355
Annual cost of Real Losses:	\$459,720

Operational Efficiency Indicators

Apparent Losses per service connection per day:	11.30	gallons/connection/day
Real Losses per service connection per day*:	40.07	gallons/connection/day
Real Losses per length of main per day*:	N/A	
Real Losses per service connection per day per psi pressure:	0.30	gallons/connection/day/psi
Unavoidable Annual Real Losses (UARL):	385.77	acre-feet/year
From Above, Real Losses = Current Annual Real Losses (CARL):	425.06	acre-feet/year
Infrastructure Leakage Index (ILI) (CARL/UARL):	1.10	

* only the most applicable of these two indicators will be calculated

WATER AUDIT DATA VALIDITY SCORE:

***** YOUR SCORE IS: 73 out of 100 *****

A weighted scale for the components of consumption and water loss is included in the calculation of the Water Audit Data Validity Score

PRIORITY AREAS FOR ATTENTION:

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

- 1: Water imported
- 2: Customer retail unit cost (applied to Apparent Losses)
- 3: Billed metered

[For more information, click here to see the Grading Matrix worksheet](#)

AWWA WLCC Free Water Audit Software: Water Balance

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WAS v4.2

Water Audit Report For: **RAMONA MUNICIPAL WATER DISTRICT**
Report Yr: **FY 2010**

Water Exported		Billed Water Exported		Revenue Water
Own Sources (Adjusted for known errors)	0.000	Billed Authorized Consumption	Billed Metered Consumption (inc. water exported)	7,279.000
729.000	Authorized Consumption 7,378.036	Unbilled Authorized Consumption	Billed Unmetered Consumption	0.000
		99.036	Unbilled Metered Consumption	0.000
			Unbilled Unmetered Consumption	99.036
Water Supplied		Apparent Losses	Unauthorized Consumption	19.807
7,922.900		119.807	Customer Metering Inaccuracies	0.000
			Systematic Data Handling Errors	100.000
	Water Losses 544.864	Real Losses	Leakage on Transmission and/or Distribution Mains	Not broken down
		425.057	Leakage and Overflows at Utility's Storage Tanks	Not broken down
Water Imported			Leakage on Service Connections	Not broken down
7,193.900				643.900

The fields in red are required.

Agency name: Ramona Municipal Water District

Primary contact:

First name: Patty

Reporting unit name

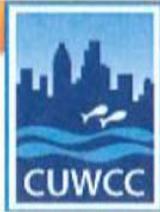
(District name) Ramona Municipal Water District

Last name: Bevers

Reporting unit number: 187

Email: pbevers@rmwd.org

You must enter the reporting unit number that we have on record for your agency. Click here to open a table to obtain this number.



BMP 1.3 Metering with Commodity 2010

[Link to FAQs](#)

See the complete MOU: [View MOU](#)

See the coverage requirements for this BMP:

Implementation

Does your agency have any unmetered service connections?

Yes No

If YES, has your agency completed a meter retrofit plan?

Yes No

Enter the number of previously unmetered accounts fitted with meters during reporting year:

Are all new service connections being metered?

Yes No

Are all new service connections being billed volumetrically?

Yes No

Has your agency completed and submitted electronically to the Council a written plan, policy or program to test, repair and replace meters?

Yes No

Please Fill Out The Following Matrix

Account Type	# Metered Accounts	# Metered Accounts Read	# Metered Accounts Billed by Volume	Billing Frequency Per Year	# of estimated bills/yr
Single-Family	8,392	8,392	8,392	Bi-monthly	0
Multi-Family	169	169	169	Bi-monthly	0
Commercial	421	421	421	Bi-monthly	0
Industrial	0	0	0	Bi-monthly	0
Institutional	75	75	75	Bi-monthly	0
Dedicated Irrigatic	12	12	12	Other	0
Agricultural	303	303	30	Monthly	0
Fire Lines	75	75	75	Bi-monthly	0
System Flushing	0	0	0	Other	0
Other	22	22	22	Monthly	0

Number of CII Accounts with Mixed-use Meters 496

Number of CII Accounts with Mixed-use Meters Retrofitted with Dedicated Irrigation Meters during Reporting Period 0

Feasibility Study

Has your agency conducted a feasibility study to assess the merits of a program to provide incentives to switch mixed-use accounts to dedicated landscape meters? Yes No

If YES, please fill in the following information:

A. When was the Feasibility Study conducted

B. Describe, upload or provide an electronic link to the Feasibility Study Upload File

File name(s): Email files to natalie@cuwcc.org

Web address(s) URL: comma-separated list

Comments:

LEGEND: X indicates agency made (brief) comment to item in Subject column	Escondido	Eastern MWD	EBMUD	DRSD	Contra Costa	Coastside County WD	Chino Hills	Chino, City	Casitas MWD	Carpinteria Valley WD	Alameda CWD	Ramona MWD
SUBJECT												
Testing Criteria & Practices												
Test Frequency-meter 1 inch or smaller -years	3								3		3	5
Test Frequency-meters 2-3 inch -years	2				1		1		3		3	2
Test Frequency-meters 4 inch-years	1				1		1		3		1	1
Test Frequency- meters greater than 4 inch -years												3
High use meters - years							1		1 or 2			1
Test interval meter total consumption - 1.5 inch - CCF				1,250,000							10,000 or 5 yrs	
Test interval meter total consumption - 3 to 8 inch compound - CCF				5-31 million							5,000 or 1.5 yrs	
Test interval meter total consumption - 10" compound - CCF											4,000 or 1 yr	
Test interval meter total consumption - turbo fire hydrant - CCF					X						20,000 or 2 yrs	X
Replace meters instead of testing & repairing meters				X			X					X
Meter readings compared with prior customer use (billing exception reports) followed with inspection and testing if outside parameters											X	X
Test sample of new meters before field installation												
Test sample of meters of different sizes and different ages to determine accuracy and need for replacement	X											X
Fire service flow detector assembly checked												X
Large meters tested when replaced	X											X
Reference to AWWA & manufacturers accuracy standards	X								X		X	X
Repair & Maintenance												
Base repair schedule on cumulative consumption of meter					X						X	X
Worn or damaged Construction meters parts replaced	X											X
Replacement Criteria												
Change out - meters 5/8 and 1 inch -years	15			15	25					15 to 20	14.5	10 to 15
Change out- meters 1.5 and 2 inch -years	15			10						15 to 20	0.5	10 to 15
Change out- meters greater than 2 inch (includes meter chamber change instead of entire body) years				10						15 to 20		10 to 15
Production meters - replace propeller meters with "Mag Meters"											X	
Hydrant meters- replace with 3" turbo meters											X	
Additional Replacement Criteria												
change meters based cumulative consumption				X					1 to 2			
meters stuck/stopped								X			X	
meter chambers recalibrated												
meter test results								X				
meter location												
customer complaint												
large old meters					X							
Replace meters as needed				X				X				X
Provided schedule to replace old meters - meter age in years				X	X							
Provided capitol budget for new meter change out			X		X	X						

The fields in red are required.

Primary contact:

You must enter the reporting unit number that we have on record for your agency. Click here to open a table to obtain this number.

Agency name: Ramona Municipal Water District

First name: Patty

Reporting unit name (District name): Ramona Municipal Water District

Last name: Bevers

Reporting unit number: 187

Email: pbevers@rmwd.org



2010

BMP 1.4 Retail Conservation Pricing

[Link to FAQs](#)

[View MOU](#)

If you are reporting more rate structures than this form allows, add the structures to a spreadsheet and send the file to natalie@cuwcc.org.

Implementation (Water Rate Structure)

Enter the Water Rate Structures that are assigned to the majority of your customers, by customer class

Rate Structure	Customer Class	Total Revenue	Commodity Charges	Total Revenue Customer Meter/Service (Fixed Charges)
Uniform	Single-Family	5,688,505.00		1,479,478.00
Uniform	Multi-Family	712,740.00		185,371.00
Uniform	Commercial	1,012,947.00		263,450.00
Uniform	Agricultural	2,277,974.00		592,460.00
Uniform	Other	16,668.00		
Select a Rate Struc	Other			
Select a Rate Struc	Other			

Implementation Option (Conservation Pricing Option)

- Use Annual Revenue As Reported
- Use Canadian Water & Wastewater Association Rate Design Model

If CWWA is select, enter the file name and email the spreadsheet to natalie@cuwcc.org

Retail Waste Water (Sewer) Rate Structure by Customer Class

Agency Provide Sewer Service

Yes No

Select the Retail Waste Water(Sewer) Rate Structure assigned to the majority of your customers within a specific customer class.

Rate Structure	Customer Class	Total Revenue	Commodity Charges	Total Revenue Customer Meter/Service (Fixed Charges)
Uniform	Other	0.00		3,897,446.00
Select a Rate Struc	Other			
Select a Rate Struc	Other			
Select a Rate Struc	Other			
Select a Rate Struc	Other			
Select a Rate Struc	Other			
Select a Rate Struc	Other			

Comments:

Sewer charges based on equivalent dwelling units, \$513 for one sewer plant an



Comments:

Sewer charges based on equivalent dwelling units, \$513 for one sewer plant and \$496 for the other. A single family home would be one sewer EDU, commercial and institutional would be based on the number of sinks and toilets and the use of the facility.

The fields in red are required.



Agency name: Primary contact: First name: Last name: Reporting unit name (District name): Email: Reporting unit number:

Click here to open a table that displays your agency name reporting unit name and reporting unit number. Please ensure that you enter the correct information.

[Link to FAQs](#)

[View MOU](#)

2010

BMP 2.1 Public Outreach - Retail Reporting

Is a Wholesale Agency Performing Public Outreach?

Are there one or more wholesale agencies performing public outreach which can be counted to help your agency comply with the BMP?

Yes No

Enter the name(s) of the wholesale agency (comma delimited)

Is your agency performing public outreach?

Report a minimum of 4 water conservation related contacts your agency had with the public during the year.

Public Information Programs List

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

Number of Public Contacts	Public Information Programs
117,000	Flyers and/or brochures (total copies), bill stuffers, messages printed on bill, information packets
4,000	General water conservation information
8	Website
150	Email Messages
	Select a public contact

Contact with the Media

Are there one or more wholesale agencies performing media outreach which can be counted to help your agency comply with the BMP?

Yes No

Enter the name(s) of the wholesale agency (comma delimited)

OR Retail Agency (Contacts with the Media)

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

Media Contacts List

Number of Media Contacts	Did at least one contact take place during each quarter of the reporting year?	Media Contact Types
6		Articles or stories resulting from outreach
4		News releases
50		Newspaper contacts
		Select a type of media contact
		Select a type of media contact
		Select a type of media contact

Is a Wholesale Agency Performing Website Updates?

Did one or more CUWCC wholesale agencies agree to assume your agency's responsibility for meeting the requirements of and for CUWCC reporting of this BMP? Yes No

Enter the name(s) of the wholesale agency (comma delimited)

Is Your Agency Performing Website Updates?

Enter your agency's URL (website address):

<http://www.rmwd.org/>

Describe a minimum of four water conservation related updates to your agency's website that took place during the year:

- 07/09 Level 2 Drought Alert
- 09/09 CWA Flyer
- 01/10 News Release
- 02/10 District website completely redesigned

Did at least one Website Update take place during each quarter of the reporting year? Yes No

Public Outreach Annual Budget

Enter budget for public outreach programs. You may enter total budget in a single line or break the budget into discrete categories by entering many rows. Please indicate if personnel costs are included in the entry.

Category	Amount	Personnel Costs Included? <small>If yes, check the box.</small>	Comments
	\$19,000	<input type="checkbox"/>	Total budget
		<input type="checkbox"/>	

Comments:

The fields in red are required.



Agency name: Primary contact:
 Reporting unit name: First name:
 (District name) Last name:
 Reporting unit number: Email:

Click here to open a table that displays your agency name reporting unit name and reporting unit number. Please ensure that you enter the correct information.

[Link to FAQs](#)

2010

BMP 2.1 Public Outreach Cont'd

[View MOU](#)

Public Outreach Expenses

Enter expenses for public outreach programs. Please include the same kind of expenses you included in the question related to your budget (Section 2.1.7, above). For example, if you included personnel costs in the budget entered above, be sure to include them here as well.

Expense Category	Expense Amount	Personnel Costs Included?
Product Incentives	\$12,219	<input type="checkbox"/> <i>If yes, check the check box.</i>
Water Bill Inserts	\$406	<input type="checkbox"/>
Water Conservation Publications	\$572	<input type="checkbox"/>
Community Events	\$1,400	<input type="checkbox"/>

Additional Public Information Program

Please report additional public information contacts. List these additional contacts in order of how your agency views their importance / effectiveness with respect to conserving water, with the most important/ effective listed first (where 1 = most important).

Were there additional Public Outreach efforts?

Yes No

Public Outreach Additional Information

Public Information Programs	Importance
Water bill inserts with conservation/drought information	<input type="text"/>
Water bill usage comparison with same period of previous year	<input type="text"/>
Water conservation door hangers	<input type="text"/>

Social Marketing Programs

Branding

Does your agency have a water conservation "brand," "theme" or mascot? Yes No

Describe the brand, theme or mascot.

Market Research

Have you sponsored or participated in market research to refine your message? Yes No

Market Research Topic

Brand Message

Brand Mission Statement

Community Committees

Do you have a community conservation committee?

Yes No

Enter the names of the community committees:

Training

Training Type	# of Trainings	# of Attendees	Description of Other

Social Marketing Expenditures

Public Outreach Social Marketing Expenses

Expense Category	Expense Amount	Description

Partnering Programs - Partners

Name

Type of Program

CLCA?

Green Building Programs?

Master Gardeners?

Cooperative Extension?

Local Colleges?

Other

The Water Conservation Garden at Cuyamaca College

Retail and wholesale outlet; name(s) and type(s) of programs:

Partnering Programs - Newsletters

Number of newsletters per year

Number of customers per year

Partnering with Other Utilities

Describe other utilities your agency partners with, including electrical utilities

San Diego County Water Authority, Metropolitan Water District, San Diego Gas & Electric

Conservation Gardens

Describe water conservation gardens at your agency or other high traffic areas or new

The Water Conservation Garden at Cuyamaca College (Garden Partner sponsor)

Landscape contests or awards

Describe water wise landscape contest or awards program conducted by your agency

Comments:

The fields in red are required.

Primary contact:

Agency name: **San Diego County Water Authority** First name: **Lori**
 Reporting unit name (District name): **San Diego County Water Authority** Last name: **Swanson**
 Reporting unit number: **196** Email: **lswanson@sdcwa.org**

Click here to open a table that displays your agency name reporting unit name and reporting unit number. Please ensure that you enter the correct information.



[Link to FAQs](#)

2010

BMP 2.1 Public Outreach

[View MOU](#)

Is your agency performing Public Outreach for your Retailers?

Are there one or more retail agencies that count on your agency to help them comply with this BMP?

Yes No

Enter the name(s) of the retail agency (comma delimited)

Carlsbad MWD, City of Del Mar Water Utilities, City of Escondido Utilities Administration, Fallbrook P.U.D., Helix Water District, Lakeside Water District, City of Oceanside Water Utilities, Olivenhain Municipal Water District, Otay

Is your agency performing public outreach?

Report a minimum of 4 water conservation related contacts your agency had with the public during the year.

Public Information Programs List

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

Number of Public Contacts	Public Information Programs
37	General water conservation information
18	Website
47,500	Flyers and/or brochures (total copies), bill stuffers, messages printed on bill, information packets
1	Landscape water conservation media campaigns
14	Newsletter articles on conservation

Contact with the Media Are there one or more retail agencies that count on your agency to help them comply with this BMP?

Yes No

Enter the name(s) of the retail agency (comma delimited)

Carlsbad MWD, City of Del Mar Water Utilities, City of Escondido Utilities Administration, Fallbrook P.U.D., Helix Water District, Lakeside Water District, City of Oceanside Water Utilities, Olivenhain Municipal Water

OR Wholesale Agency (Contacts with the Media)

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

Media Contacts List

Number of Media Contacts	Did at least one contact take place during each quarter of the reporting year?	Media Contact Types
9		News releases
71		Articles or stories resulting from outreach
873		Newspaper contacts
171		Television contacts
72		Radio contacts
2		Written editorials

The fields in red are required.



Agency name: Ramona Municipal Water District
Reporting unit name (District name): Ramona Municipal Water District
Reporting unit number: 187

Primary contact:
First name: Patty
Last name: Bevers
Email: pbevers@rmwd.org

Click here to open a table that displays your agency name reporting unit name and reporting unit number. Please ensure that you enter the correct information.

2010

BMP 2.2 School Education Programs, Retail Agencies
School Programs

Link to FAQs

View MOU

Is a wholesale agency implementing school programs which can be counted to help your agency comply with this BMP?

Yes No

Enter Wholesaler Names, separated by commas:

San Diego County Water Authority, Metropolitan Water District

Materials meet state education framework requirements?

Description of Materials

3rd & 4th grade history video/dvd, "Give Water a Second Chance...Re-cycle III" for 5th grade, Be Water Smart DVD, Water Quality Testing Kit for high school science teachers' classroom use, Water Science in a Box for 1st, 2nd and 3rd grades, Watersheds, Water & You student workbook for 5th grade, Water Works! school-to-career workbook, Water Smart garden curriculum

Materials distributed to K-6 Students?

Description of materials distributed to K-6 Students

3rd & 4th grade history video/dvd, "Give Water a Second Chance...Recycle III" Booklet for 5th grade, Be Water Smart DVD for 4th-6th grades

Number of students reached

1,500

Materials distributed to 7-12 Students?

Description of materials distributed to 7-12 Students

Water Quality testing kits to high school science teachers for use in their classrooms

Number of Distribution

0

Annual budget for school education program

\$1,000.00

Description of all other water supplier education programs

Traveling Library Program, Youth and Scout Merit Patch Program, 20-Gallon Challenge Student Pledge Contest, WaterSm "ART" Essay Contest, Splash Science Mobile Lab, H2O Where Did You Go? Theatre Program

School Program Activities

Classroom presentations:

Number of presentations: 6

Number of attendees: 201

Large group assemblies:

Number of presentations: 2

Number of attendees: 1304

Children's water festivals or other events:

Number of presentations: 0

Number of attendees: 0

Cooperative efforts with existing science/water education programs (various workshops, science fair awards or judging) and follow-up:

Number of presentations: 0

Number of attendees: 0

Other methods of disseminating information (i.e. themed age-appropriate classroom loaner kits):

Description		
Number distributed	0	
Staffing children's booths at events & festivals:		
Number of booths	1	Number of attendees 100
Water conservation contests such as poster and photo:		
Description	4th Grade Poster Contest	
Number distributed		
Offer monetary awards/funding or scholarships to students:		
Number Offered	0	Total Funding 0
Teacher training workshops:		
Number of presentations	4	Number of attendees 14
Fund and/or staff student field trips to treatment facilities, recycling facilities, water conservation gardens, etc.:		
Number of tours or field trips	0	Number of participants 0
College internships in water conservation offered:		
Number of internships	0	Total funding 0
Career fairs/workshops:		
Number of presentations	0	Number of attendees 0
Additional program(s) supported by agency but not mentioned above:		
Description		
Number of events (if applicable)	0	Number of participants 0
Total reporting period budget expenditures for school education programs (include all agency costs):		637

Comments

Classroom and group presentations, as well as, teacher training workshops provided by San Diego County Water Authority.

Ramona Municipal Water District
Section A: Presentations, Assemblies, Splash Lab, and Traveling Library Display

Program	School	Date	Number of Classes	Number of Students
5th Grade Weather and Water Presentation	Dukes, James, Elementary	9/28/2009	3	105
	Ramona Elementary	1/14/2010	3	96
Totals:			6	201
H2O, Where Do You Go? - Assembly	Dukes, James, Elementary	9/29/2009	22	654
	Hanson Lane Elementary	3/18/2010	27	650
Totals:			49	1,304

1605

16

Ramona Municipal Water District
Section B: Inservices, Workshops, Curriculum, Other Materials

Program	School	Date	Number of Teachers
Be Water Smart Conservation DVD	Dukes, James, Elementary	9/14/2009	8
Total:			8
Give Water a Second Chance...Re-Cycle it! - Deliver	Dukes, James, Elementary	9/14/2009	3
Total:			3
Water Quality Testing Kit - Checkout kit	Barnett Elementary	1/11/2010	1
Total:			1
Regional Water Quality Testing - Workshop	Barnett Elementary	1/11/2010	2
Total:			2

Please Note:

This report includes MWD curriculum that was delivered by the Water Authority and requests for curriculum that the Water Authority forwarded to MWD. It does not include curriculum requests that were sent directly to MWD.

14

The fields in red are required.

Primary contact:

Agency name: **San Diego County Water Authority** First name: **Lori**
 Reporting unit name (District name) **San Diego County Water Authority** Last name: **Swanson**
 Reporting unit number: **196** Email: **lswanson@sdcwa.org**

Click here to open a table that displays your agency name reporting unit name and reporting unit number. Please ensure that you enter the correct information.



[Link to FAQs](#)

2010

BMP 2.2 School Education Programs School Programs

[View MOU](#)

Is your agency implementing school programs which can be counted to help another agency comply with this BMP?

Yes No

Enter retailer names, separated by commas:

Carlsbad MWD, City of Del Mar Water Utilities, City of Escondido Utilities Administration, Fallbrook P.U.D., Halk Water District, Lakeside Water District, City of Oceanside Water Utilities, Olivenhain Municipal Water District, Otay Water District, Padre Dam MWD, Camp Pendleton, Marine Corps Base, City of Poway Water Utilities, Rancho Municipal Water District, Ramona Municipal Water District, Rincon del Diablo Municipal Water District, City of San Diego Water Department, San Diego Water District, Santa Fe Irrigation District, Sweetwater Authority, Vallecitos Water District, Valley Center Municipal Water District, Vista Irrigation District, Yuima Municipal Water District

Materials meet state education framework requirements?

Description of Materials

3rd & 4th grade history video/dvd, "Give Water a Second Chance...Re-cycle it!" for 5th grade, Be Water Smart DVD, Water Quality Testing Kit for high school science teachers' classroom use, Water Science in a Box for 1st, 2nd and 3rd grades, Watersheds, Water & You" student workbook for 5th grade, Water Works! school-to-career workbook, Water Smart garden curriculum

Materials distributed to K-6 Students?

Description of materials distributed to K-6 Students

3rd & 4th grade history video/dvd, "Give Water a Second Chance...Recycle it!" Booklet for 5th grade, Be Water Smart DVD for 4th-6th grades

Number of students reached

7,921

Materials distributed to 7-12 Students?

Description of materials distributed to 7-12 Students

Water Quality testing kits to high school science teachers for use in their classrooms---13 trained reaching 1,530 students

Number of Distribution

30

Annual budget for school education program

\$451,500.00

Description of all other water supplier education programs

Traveling Library Program, Youth and Scout Merit Patch Program, 20-Gallon Challenge Student Pledge Contest, WaterSm "ART" Essay Contest, Splash Science Mobile Lab, H2O Where Did You Go? Theatre Program

School Program Activities

Classroom presentations:

Number of presentations **355**

Number of attendees **8,923**

Large group assemblies:

Number of presentations **67**

Number of attendees **34,362**

Children's water festivals or other events:

Number of presentations **2 elementary schools**

Number of attendees **675**

Cooperative efforts with existing science/water education programs (various workshops, science fair awards or judging) and follow-up:

Number of presentations **90**

Number of attendees **3,150**

Other methods of disseminating information (i.e. themed age-appropriate classroom loaner kits):

Description	n/a	
Number distributed	n/a	
Staffing children's booths at events & festivals:		
Number of booths	n/a	Number of attendees
Water conservation contests such as poster and photo:		
Description	20-Gallon Challenge Student Pledge Contest (marketing brochure drives students to website to sign-up, drawings held for prizes), WaterSm "ART" Essay contest	
Number distributed	15,000 marketing brochures	
Offer monetary awards/funding or scholarships to students:		
Number Offered	6 (Science Fair)	Total Funding
Teacher training workshops:		
Number of presentations	7 (WaterSmart Coaching Workshops, and 2 Regional)	Number of attendees
Fund and/or staff student field trips to treatment facilities, recycling facilities, water conservation gardens, etc.:	100 (70 Water Smart & 30 Water Quality)	
Number of tours or field trips	n/a	Number of participants
College internships in water conservation offered:		
Number of internships	1/2	Total funding
Career fairs/workshops:		
Number of presentations	n/a	Number of attendees
Additional program(s) supported by agency but not mentioned above:		
Description	Reuben H. Fleet Science Center -- 350,000 visitors/year reaching approximately 20% to water exhibit (70,000)	
Number of events (if applicable)	Display at Reuben H. Fleet Science Cr	Number of participants
Total reporting period budget expenditures for school education programs (include all agency costs):	\$451,500	

Comments

The San Diego County Water Authority provided partial funding for 18 schools which were reached by the Splash Science Mo

Granados, Steven

From: Patty Bevers <pbevers@rmwd.org>
Sent: Monday, January 30, 2012 11:19 AM
To: Granados, Steven
Subject: Confirmation of receipt of BMP Reports from CUWCC

-----Original Message-----

From: Inna Zagrodsky [<mailto:Inna@cuwcc.org>]
Sent: Friday, January 27, 2012 3:45 PM
To: Patty Bevers
Subject: RE: Submitting Completed Form

Patty,

I have complete set of data to prepare foundational BMP coverage report for Ramona MWD for 2009-2010.

Thank you,
Inna

-----Original Message-----

From: Patty Bevers [<mailto:pbevers@rmwd.org>]
Sent: Friday, January 27, 2012 3:32 PM
To: Natalie Calkins
Cc: Inna Zagrodsky
Subject: Submitting Completed Form

Instructions to add this form to a responses file:

1. Double-click the attachment.
2. Acrobat will prompt you to select a responses file.

