



Appendix N2:

# Addendum to 2005 Urban Water Management Plan

# **Addendum to 2005 Update of the Urban Water Management Plan**

**RANCHO CALIFORNIA WATER DISTRICT**

**42135 WINCHESTER ROAD  
TEMECULA, CA 92590  
(951) 296-6900**

**MARCH 2007**

**Report Prepared by**

**Perry Louck  
Director of Planning  
Rancho California Water District**

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# **SECTION 1**

# **BACKGROUND**

Rancho California Water District adopted and submitted its 2005 Urban Water Management Plan update to the California Department of Water Resources in December of 2005. As part of the normal review process, the California Department of Water Resources (DWR) performed a review of the 2005 plan. As a result of this review, DWR requested additional information in the form of a plan addendum.

As a result of this request, staff has worked closely with the DWR staff to ensure that the addendum meets all the requirements of the review process.

# **SECTION 2**

## **REVIEW NOTES AND RESPONSES**

The following items are provided in response to the request for additional information and clarification of data resulting from DWR's review of RCWD's 2005 Urban Water Management Plan.

## **2.1 Water Sources**

Table 4 - Current and Planned Water Supplies – AFY

Review Note - Who are the wholesale agency or agencies?

*See amended table 4 attached*

### **2.1.2 Groundwater Sources**

Does the District have a Groundwater Management plan ?

Need description of basin – *See Basin description attached*

Provide a copy of the order or decree – *See copy of the 1940 Stipulated Judgment attached*

Need GW amounts for 2000 – 2004 - *See amended Table 6 attached*

### **2.1.3 Reliability of Supply**

Need supply for Normal, single dry and multiple dry years – *See amended Table 8 attached*

### **2.1.4 District is a CUWCC signatory**

Provide copy of 2005 report- *Copy of 2005 and 2006 reports are attached*

### **2.1.5 Wholesaler Supplies**

Table 19 - Agency demand projections provided to wholesale suppliers – AFY – *See amended Table attached*

Table 20- Wholesaler identified & quantified the existing and planned sources of water- AFY – *See amended Table 20 attached*

Table 21 - Wholesale Supply Reliability - % of normal AFY – *See amended Table 21 attached*

### **2.1.6 Supply Reliability**

Need 5th multiple dry year as per page 8-3 – *See amended Table 21 attached*

Table 23 - Water Supply Shortage Stages and Conditions – *See amended table 23 attached*

Table 27 - Consumption Reduction Methods – *See copy of Water shortage Contingency Plan attached*

### **2.1.7 Review of Implementation of 2000 UWMP**

Provide Review of implementation of 2000 UWMP

*As a result of the Rancho California Water District completing and adopting its Regional Integrated Resources Plan (RIRP) in October 2005, the implementation plans identified in the 2000 UWMP have been put on hold. Resulting from the completion of the RIRP and the District becoming a CUWCC signatory after the 2000 UWMP plan was adopted, the District's resource supply and conservation plans changed dramatically as reflected in the 2005 UWMP. The District also adopted a Water Shortage contingency plan and a Tier 2 targeted water conservation program that superseded the conservation plans identified in the 2000 UWMP. In regards to the Resource plans identified in the RIRP and the 2005 UWMP, the District has funded and is performing a feasibility study to further the implementation of the resource projects identified in the RIRP.*

# **SECTION 3**

## **ADDENDUM RESOLUTION**

**RESOLUTION NO. 2007-4-draft**

**RESOLUTION OF THE BOARD OF DIRECTORS OF  
RANCHO CALIFORNIA WATER DISTRICT, RIVERSIDE  
COUNTY, CALIFORNIA, ADOPTING AN ADDENDUM TO  
ITS URBAN WATER MANAGEMENT PLAN, DECEMBER  
2005**

WHEREAS, the California Legislature enacted Assembly Bill 797 during the 1983-1984 Regular Session of the California Legislature (Water Code Section 10610 et. seq.), known as the Urban Water Management Planning Act, which mandates that every urban supplier of water providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000 acre feet of water annually, prepare an Urban Water Management Plan, the primary objective of which is to plan for the conservation and efficient use of water; and

WHEREAS, the proper and cost effective conservation of our water resources is essential to ensuring adequate water supplies now and in the future; and

WHEREAS, water conservation is recognized as an integral part of all water programs; and

WHEREAS, The Rancho California Water District has updated their Urban Water Management Plan (the "Plan") pursuant to the requirements of California Water Code Section 10610 et. seq.; and

WHEREAS, the Plan is the formal document to discuss past, current, and projected water demands; current and alternate water conservation measures; water supply deficiencies; and future water management practices; and

WHEREAS, the Department of Water Resources has requested Rancho California Water District provide additional information to support the 2005 Urban Water Management Plan.

NOW, THEREFORE, BE IT HEREBY RESOLVED, DETERMINED, AND ORDERED by the Board of Directors of Rancho California Water District that:

SECTION 1. The Board of Directors of Rancho California Water District approves and adopts the addendum to the "Urban Water Management Plan for Rancho California Water District, December 2005."

SECTION 2. The General Manager is hereby authorized and directed to file the Plan addendum with the California Department of Water Resources within 30 days after this date, pursuant to the requirements of California Water Code Section 10610, et. seq.

ADOPTED, SIGNED, AND APPROVED this 12<sup>th</sup> day of April 2007.

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Stephen J. Corona, President of the  
Board of Directors of the  
Rancho California Water District

ATTEST:

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Kelli E. Garcia, Secretary of the  
Board of Directors of the  
Rancho California Water District

STATE OF CALIFORNIA )  
 )ss.  
COUNTY OF RIVERSIDE )

I, Kelli E. Garcia, Secretary of the Board of Directors of Rancho California Water District, do hereby certify that the foregoing Resolution No. 2007-\_\_-\_\_ was duly adopted by the Board of Directors of said District at a regular meeting thereof held on the 12th day of April, 2007, and that it was so adopted by the following vote:

AYES: DIRECTORS:

NOES: DIRECTORS:

ABSENT: DIRECTORS:

ABSTAIN: DIRECTORS:

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Kelli E. Garcia, Secretary of the  
Board of Directors of  
Rancho California Water District

(SEAL)

# **APPENDICES**

# **APPENDIX A**

## **REVISED 2005 URBAN WATER MANAGEMENT PLAN “REVIEW FOR COMPLETENESS” FORM**

2005 Urban Water Management Plan "Review for Completeness" Form

Rancho California Water District

(Water Code § 10620 (d)(1)(2))

Yes

Participated in area, regional, watershed or basin wide plan \_\_\_\_\_ Reference & Page Number

Name of plan \_\_\_\_\_ Lead Agency \_\_\_\_\_

Describe the coordination of the plan preparation and anticipated benefits. pg 1-6 Reference & Page Number

**Table 1  
Coordination with Appropriate Agencies**

Check at least one box on each row	Participated in developing the plan	Commented on the draft	Attended public meetings	Was contacted for assistance	Was sent a copy of the draft plan	Was sent a notice of intention to adopt	Not I
MWD	X		X	X			
Eastern MWD	X		X	X	X		
Western MWD	X		X	X	X		
Other							
Other							

(Water Code §10620 (f))

Describe how water management tools / options maximize resources & minimize need to import water pg 1-5 / 1-6 Reference & Page Number

(Water Code § 10621(a))

Date updated and adopted plan received 8-Dec-05 (enter date) Appx D Reference & Page Number

(Water Code § 10621(b))

Notify any city or county within service area of UWMP of plan review & revision Appx C Reference & Page Number

Consult and obtain comments from cities and counties within service area Appx C Reference & Page Number

Water Code § 10631 (a))

Include current and projected population pg 1-3 Reference & Page Number

Population projections were based on data from state, regional or local agency pg 1-3 Reference & Page Number

**Table 2  
Population - Current and Projected**

	2005	2010	2015	2020	2025	2030 - opt
Service Area Population	109,123	121,324	134,184	145,631	155,772	165,151

Describe climate characteristics that affect water management pg 1-4 Reference & Page Number

Describe other demographic factors affecting water management pg 1-4 Reference & Page Number

**Table 3  
Climate**

	January	February	March	April	May	June
Standard Average ETo	2.3	3.24	4.14	5.01	6.47	6.98
Average Rainfall	2.33	2.31	1.38	0.65	0.17	0.02
Average Temperature	65.4	67.9	71	76.5	82	90.6

**Table 3 (continued)  
Climate**

	July	August	September	October	November	December
Average ETo	7.92	7.58	5.79	4.2	2.64	2.26

Average Rainfall	0.07	0.1	0.24	0.4	1.03	1.63	
Average Temperature	98.2	98.3	93.4	83.8	73.6	66.8	

**(Water Code § 10631 (b))**

- Identify existing and planned water supply sources
- Provide current water supply quantities
- Provide planned water supply quantities

- pg 2-1 Reference & Page Number
- pg 2-1 Reference & Page Number
- pg 2-12 Reference & Page Number

Table 4 Current and Planned Water Supplies - AFY						
Water Supply Sources	2005	2010	2015	2020	2025	
<b>Water purchased from:</b>						
U.S. Bureau of Reclamation						
Department of Water Resources						
Arcade Water District						
Calleguas Municipal Water District						
Castaic Lake Water Agency						
Central Basin Municipal Water District						
Chino Basin Municipal Water District						
Coastal Municipal Water District						
Contra Costa Water District						
Eastern Municipal Water District	16,000	16,310	24,410	35,010	36,100	
Foothill Municipal Water District						
Humboldt Bay Municipal Water District						
Inland Empire Utilities Agency						
Joint Regional Water Supply System						
Kern County Water Agency						
Metropolitan Water District of Southern Cal						
Municipal Water District of Orange County						
North of The River Municipal Water District						
Placer County Water Agency						
Sacramento County Water Management Dist						
San Diego County Water Authority						
San Francisco City of						
San Juan Water District						
San Luis Obispo County						
Santa Clara Valley Water District						
Solano County Water Agency						
Sonoma County Water Agency						
Stockton East Water District						
Tehachapi-Cummings County Water District						
Three Valleys Municipal Utility District						
Upper San Gabriel Valley Municipal Water						
Water Facilities Authority						
West Basin Municipal Water District						
Western Municipal Water Dist of Riverside	35,000	38,500	36,500	23,500	16,500	

<b>Zone 7</b>						
<b>Other Wholesaler 1 (enter agency name)</b>						
<b>Other Wholesaler 2 (enter agency name)</b>						
<b>Other Wholesaler 3 (enter agency name)</b>						
<b>Supplier produced groundwater</b>	38,000	38,000	38,000	56,000	56,000	
<b>Supplier surface diversions</b>						
<b>Transfers in or out</b>						
<b>Exchanges In or out</b>						
<b>Recycled Water (projected use)</b>	6,700	7,890	9,090	9,890	24,300	
<b>Desalination</b>						
<b>Other</b>						
<b>Other</b>						
<b>Total</b>	<b>95,700</b>	<b>100,700</b>	<b>108,000</b>	<b>124,400</b>	<b>132,900</b>	

**(Water Code §10631 (b)(1-4))**

<input type="checkbox"/>	Has management plan	_____	Reference & Page Number
<input type="checkbox"/>	Attached management plan (b)(1)	_____	Reference & Page Number
<input type="checkbox"/>	Description of basin(s) (b)(2)	_____	Reference & Page Number
<input checked="" type="checkbox"/>	Basin is adjudicated	pg 2-2	Reference & Page Number
<input type="checkbox"/>	If adjudicated, attached order or decree (b)(2)	_____	Reference & Page Number
<input type="checkbox"/>	Quantified amount of legal pumping right (b)(2)	N/A	Reference & Page Number

Table 5 Groundwater Pumping Rights - AFY	
Basin Name	Pumping Right - AFY
<b>Total</b>	<b>0</b>

<input type="checkbox"/>	DWR identified, or projected to be, in overdraft (b)(2)	N/A	Reference & Page Number
<input type="checkbox"/>	Plan to eliminate overdraft (b)(2)	N/A	Reference & Page Number
<input type="checkbox"/>	Analysis of location, amount & sufficiency, last five years (b)(3)	_____	Reference & Page Number
<input checked="" type="checkbox"/>	Analysis of location & amount projected, 20 years (b)(4)	pg 2-13	Reference & Page Number

Table 6 Amount of Groundwater pumped - AFY					
Basin Name (s)	2000	2001	2002	2003	2004
<b>Temecula/Pauba</b>	39,096	41,706	41,348	37,188	37,832
<b>% of Total Water Supply</b>	<b>38.82%</b>	<b>38.62%</b>	<b>33.24%</b>	<b>27.98%</b>	<b>28.47%</b>

Table 7 Amount of Groundwater projected to be pumped - AFY					
Basin Name(s)	2010	2015	2020	2025	2030 - opt
<b>Pauba</b>	27,766	27,766	45,766	45,766	45,766
<b>South Murrieta</b>	260	260	260	260	260
<b>Lower Mesa</b>	3,646	3,646	3,646	3,646	3,646
<b>North Murrieta</b>	404	404	404	404	404
<b>Wolf Valley</b>	1,566	1,566	1,566	1,566	1,566
<b>San Gertrudis</b>	4,056	4,056	4,056	4,056	4,056

Upper Mesa	76	76	76	76	76
Palomar	226	226	226	226	226
<b>% of Total Water Supply</b>	37.74%	35.19%	45.02%	42.14%	39.89%

**(Water Code §10631 (c) (1-3))**

Describes the reliability of the water supply and vulnerability to seasonal or climatic shortage

Reference & Page Number

Table 8 Supply Reliability - AF Year					
Average / Normal Water Year	Single Dry Water Year	Multiple Dry Water Years			
		Year 1	Year 2	Year 3	Year 4
95,700	95,700	95,700	95,700	95,700	95,700
% of Normal	100.0%	100.0%	100.0%	100.0%	100.0%

Table 9 Basis of Water Year Data	
Water Year Type	Base Year(s)
Average Water Year	1954
Single-Dry Water Year	1989
Multiple-Dry Water Years	1987 - 1991

pg 8-3 Reference & Page Number  
 pg 8-3 Reference & Page Number  
 pg 8-3 Reference & Page Number

**(Water Code §10631 (c))**

Describe the reliability of the water supply due to seasonal or climatic shortages

Reference & Page Number

Describe the vulnerability of the water supply to seasonal or climatic shortages

Reference & Page Number

No unreliable sources

pg 8-6 Reference & Page Number

Table 10 Factors resulting in inconsistency of supply					
Name of supply	Legal	Environ-mental	Water Quality	Climatic	
Groundwater	x	x	x	x	
Imported	x	x	x	x	

Describe plans to supplement or replace inconsistent sources with alternative sources or DMMs

pg 38 Reference & Page Number

No inconsistent sources

Reference & Page Number

**(Water Code §10631 (d))**

Describe short term and long term exchange or transfer opportunities

Reference & Page Number

No transfer opportunities

pg 2-13 / 2-14 Reference & Page Number

Table 11 Transfer and Exchange Opportunities - AF Year					
Transfer Agency	Transfer or Exchange	Short term	Proposed Quantities	Long term	Proposed Quantities



<b>Conjunctive use</b>						
raw water						
recycled						
Gorge Discharge per water rights agreement		2,500	2,500	2,500	2,500	
Unaccounted-for system losses		1,500	1,700	1,800	1,900	
<b>Total</b>	<b>0</b>	<b>17,000</b>	<b>17,200</b>	<b>17,300</b>	<b>27,400</b>	

Table 15						
Total Water Use - AF Year						
Water Use	2000	2005	2010	2015	2020	
Total of Tables 12, 13, 14	68,800	93,100	100,700	108,000	124,400	

**(Water Code §10631 (f))**

(Water Code §10631 (f) & (g), the 2005 Urban Water Management Plan "Review of DMMs for Completeness" Form is found on Sheet 2

**(Water Code §10631 (D359))**

<input checked="" type="checkbox"/>	No future water supply projects or programs and no non-implemented / not scheduled DMMs	<u>pg 4-1</u>	Reference & Page Number
<input type="checkbox"/>	Cost-Benefit includes economic and non-economic factors (environmental, social, health, customer impact, and technological factors)	<u>                    </u>	Reference & Page Number
<input type="checkbox"/>	Cost-Benefit analysis includes total benefits and total costs	<u>                    </u>	Reference & Page Number
<input type="checkbox"/>	Identifies funding available for Projects with higher per-unit-cost than DMMs	<u>                    </u>	Reference & Page Number
<input type="checkbox"/>	Identifies Suppliers' legal authority to implement DMMs, efforts to implement the measures and efforts to identify cost share partners	<u>                    </u>	Reference & Page Number

Table 16	
Evaluation of unit cost of water resulting from non-implemented / non-scheduled DMMs and planned water supply project and programs	
Non-implemented & Not Scheduled DMM / Planned Water Supply Projects (Name)	Per-AF Cost (\$)

**(Water Code §10631 (h))**

<input type="checkbox"/>	No future water supply projects or programs		
<input checked="" type="checkbox"/>	Detailed description of expected future supply projects & programs	<u>pg 2-7 to 2-12</u>	Reference & Page Number
<input checked="" type="checkbox"/>	Timeline for each proposed project	<u>pg 2-12</u>	Reference & Page Number
<input checked="" type="checkbox"/>	Quantification of each projects normal yield (AFY)	<u>pg 2-12</u>	Reference & Page Number
<input checked="" type="checkbox"/>	Quantification of each projects single dry-year yield (AFY)	<u>pg 2-12</u>	Reference & Page Number
<input checked="" type="checkbox"/>	Quantification of each projects multiple dry-year yield (AFY)	<u>pg 2-12</u>	Reference & Page Number

Table 17							
Future Water Supply Projects							
Project Name	Projected Start Date	Projected Completion Date	Normal-year AF to agency	Single-dry year yield AF	Multiple-Dry-Year 1 AF	Multiple-Dry-Year 2 AF	Mult
18 new wells	2020	Ongoing	18,000	16,700	16,700	15,900	
MF/RO Facilit for Recycle water	2025	TBA	13,600	13,600	13,600	13,600	
			31,600	30,300	30,300	29,500	

**(Water Code §10631 (i))**

<input checked="" type="checkbox"/>	Describes opportunities for development of desalinated water, including, but not limited to, ocean water, brackish water, and groundwater, as a long-term supply
-------------------------------------	--

No opportunities

Table 18 Opportunities for desalinated water	
Sources of Water	Check if yes
Ocean Water	X
Brackish ocean water	X
Brackish groundwater	X
other	
other	

pg 2-14 Reference & Page Number

(Water Code § 10631 (j))

Urban suppliers that are California Urban Water Conservation Council members may submit the annual reports identifying water demand management measures currently being implemented, or scheduled for implementation, to satisfy the requirements of subdivisions (f) and (g).

The supplier's CUWCC Best Management Practices Report should be attached to the UWMP.

- Agency is a CUWCC member pg 4-1 Reference & Page Number
- 2005 annual updates are attached to plan Reference & Page Number
- Annual updates are considered completed by CUWCC website Reference & Page Number

(Water Code §10631 (k))

Yes

- Agency receives, or projects receiving, wholesale water pg 8-4 Reference & Page Number
- Agency provided written demand projections to wholesaler, 20 years pg 8-4 Reference & Page Number

Table 19 Agency demand projections provided to wholesale suppliers - AFY					
Wholesaler	2010	2015	2020	2025	2030 - opt
Eastern MWD	29,919	23,169	29,433	32,251	51,584
Western MWD	35,000	22,500	20,500	7,500	3,800

- Wholesaler provided written water availability projections, by source, to agency, 20 years Reference & Page Number  
(if agency served by more than one wholesaler, duplicate this table and provide the source availability for each wholesaler)

Table 20 Wholesaler identified & quantified the existing and planned sources of water- AFY					
Wholesaler sources	2010	2015	2020	2025	2030 - opt
Eastern MWD	16,310	24,410	35,010	36,100	39,700
Western MWD	38,500	36,500	23,500	16,500	19,500
(source 3)					

- Reliability of wholesale supply provided in writing by wholesale agency pg 8-5 Reference & Page Number  
(if agency served by more than one wholesaler, duplicate this table and provide the source availability for each wholesaler)

Table 21 Wholesale Supply Reliability - % of normal AFY						
Wholesaler sources	Multiple Dry Water Years					
	Single Dry	Year 1	Year 2	Year 3	Year 4	Year 5
MWD	100	100	100	100	100	100
(source 2)						
(source 3)						

Table 22 Factors resulting in inconsistency of wholesaler's supply				
Name of supply	Legal	Environment	Water Quality	Climatic
MWD	X	X	X	X
(source 2)				

(Water Code § 10632)

**(Water Code § 10632 (a))**

- Provide stages of action pg 5-7 to 5-9 Reference & Page Number
- Provide the water supply conditions for each stage pg 5-7 to 5-9 Reference & Page Number
- Includes plan for 50 percent supply shortage Reference & Page Number

Table 23 Water Supply Shortage Stages and Conditions RATIONING STAGES		
Stage No.	Water Supply Conditions	% Shortage
1	Normal condition	0
2	Water Alert	10
3	Water Warning	30
4	Water Emergency	50

**(Water Code §10632 (b))**

- Identifies driest 3-year period pg 5-10 Reference & Page Number
- Minimum water supply available by source for the next three years pg 5-10 Reference & Page Number

Table 24 Three-Year Estimated Minimum Water Supply - AF Year					
source**	Normal	2006	2007	2008	
Imported (MWD)	31,084	34,761	40,226	32,777	
Groundwater	38,130	38,931	39,636	39,378	
Reclaimed	6,044	6,093	6,161	6,068	
<b>Total</b>	<b>75,258</b>	<b>79,785</b>	<b>86,023</b>	<b>78,223</b>	

\*Note: If reporting after 2005, please change the cc (Year 1, 2, & 3) to the appropriate years

**(Water Code §10632 (c))**

- Provided catastrophic supply interruption plan pg 5-11/5-12 Reference & Page Number

Table 25 Preparation Actions for a Catastrophe	
Possible Catastrophe	Check if Discussed
Regional power outage	X
Earthquake	X
Other (name action)	
Other (name action)	

**(Water Code § 10632 (d))**

- List the mandatory prohibitions against specific water use practices during water shortages pg 5-7 to 5-9 Reference & Page Number

Table 26 Mandatory Prohibitions	
Examples of Prohibitions	Stage When Prohibition Becomes Mandatory

Using potable water for street washing	2
No runoff onto hardscape, driveways, streets, or gutters	1
Water at night only parks, school yards & golf courses	2
No fire hydrant meters to be issued	3
No watering lawns	4
Water will only be serve at restaurants when requested	4
Swimming pools are not to be filled	3

**(Water Code § 10632 (e))**

List the consumption reduction methods the water supplier will use to reduce water use in the most restrictive stages with up to a 50% \_\_\_\_\_ Reference & Page Number reduction.

Table 27 Consumption Reduction Methods		
Consumption Reduction Methods	Stage When Method Takes Effect	Projected Reduction (%)
*****See Water Shortage Contingency Plan attached*****		

**(Water Code § 10632 (f))**

List excessive use penalties or charges for excessive use \_\_\_\_\_ pg 5-12 Reference & Page Number

Table 28 Penalties and Charges	
Penalties or Charges	Stage When Penalty Takes Effect
Penalty for excess use	1
Charge for excess use	1

**(Water Code § 10632 (g))**

Describe how actions and conditions impact revenues \_\_\_\_\_ pg 5-12/5-13 Reference & Page Number

Describe how actions and conditions impact expenditures \_\_\_\_\_ pg 5-13 Reference & Page Number

X

Describe measures to overcome the revenue and expenditure impacts

pg 5-13

Reference & Page Number

Table 29 Proposed measures to overcome revenue impacts	
Names of measures	Check if Discussed
Rate adjustment	X
Development of reserves	X
name of measure	
name of measure	

Table 30 Proposed measures to overcome expenditure impacts	
Names of measures	Check if Discussed
Drought Reserves	X

(Water Code § 10632 (h))

X

Attach a copy of the draft water shortage contingency resolution or ordinance.

Appx B

Reference & Page Number

(Water Code § 10632 (i))

X

Provided mechanisms for determining actual reductions

pg 5-13

Reference & Page Number

Table 31 Water Use Monitoring Mechanisms	
Mechanisms for determining actual reductions	Type data expected (pop-up?)
Billing System on a monthly basis	Actual water use
Name mechanism	
Name mechanism	

Water Code § 10633

X

Describe the coordination of the recycling plan preparation information to the extent available.

pg 6-1

Reference & Page Number

Table 32 Participating agencies	
	participated
Water agencies	RCWD, MWD
Wastewater agencies	EMWD, WMWD
Groundwater agencies	
Planning Agencies	

(Water Code § 10633 (a))

- Describe the wastewater collection and treatment systems in the supplier's service area pg 6-1 Reference & Page Number
- Quantify the volume of wastewater collected and treated pg 6-2 Reference & Page Number

**Table 33**  
**Wastewater Collection and Treatment - AF Year**

Type of Wastewater	2000	2005	2010	2015	2020
Wastewater collected & treated in service area		18,594	22,655	26,715	29,404
Volume that meets recycled water standard		18,594	22,655	26,715	29,404

(Water Code § 10633 (a - d))

- Describes methods of wastewater disposal pg 6-2 Reference & Page Number
- Describe the current type, place and use of recycled water pg 6-4 Reference & Page Number
- None
- Describe and quantify potential uses of recycled water pg 6-3/6-4 Reference & Page Number

**Table 34**  
**Disposal of wastewater (non-recycled) AF Year**

Method of disposal	Treatment Level	2005	2010	2015	2020
Temascal Creek	Title 22	6,945	9,017	11,089	12,882
Name of method					
Name of method					
<b>Total</b>		<b>6,945</b>	<b>9,017</b>	<b>11,089</b>	<b>12,882</b>

**Table 35**  
**Recycled Water Uses - Actual and Potential (AFY)**

User type	Treatment Level	2005	2010	2015	2020
Agriculture	Title 22	194	190	190	190
Landscape	Title 22	6,497	4,481	5,699	6,917
Wildlife Habitat					
Wetlands					
Industrial					
Groundwater Recharge	MF/RO	0	35,000	35,000	35,000
Tolerant Agriculture	MF/RO	0	38,000	38,000	38,000
Other (user type)					
<b>Total</b>		<b>6,691</b>	<b>77,671</b>	<b>78,889</b>	<b>80,107</b>

- Determination of technical and economic feasibility of serving the potential uses pg 6-3 to 6-5 Reference & Page Number

(Water Code § 10633 (e))

- Projected use of recycled water, 20 years pg 6-4 Reference & Page Number

**Table 36**  
**Projected Future Use of Recycled Water in Service Area - AF Year**

	2010	2015	2020	2025	2030 - opt
Projected use of Recycled Water	7,890	9,090	9,890	24,300	25,200

- Compare UWMP 2000 projections with UWMP 2005 actual pg 6-5 Reference & Page Number
- None

(§ 10633 (e))

Table 37 Recycled Water Uses - 2000 Projection compared with 2005 actual - AFY		
User type	2000 Projection for 2005	2005 actual use
Agriculture		
Landscape	4,180	6,497
Wildlife Habitat		
Wetlands		
Industrial		
Groundwater Recharge		
Other (user type)		
Other (user type)		
<b>Total</b>	<b>4,180</b>	<b>6,497</b>

(Water Code § 10633 (f))

- Describe actions that might be taken to encourage recycled water uses pg 6-5/6-6 Reference & Page Number
- Describe projected results of these actions in terms of acre-feet of recycled water used per year pg 6-5/6-6 Reference & Page Number

Table 38 Methods to Encourage Recycled Water Use					
Actions	AF of use projected to result from this action				
	2010	2015	2020	2025	
Financial incentives	7,890	9,090	9,890	24,300	
name of action					
name of action					
name of action					
name of action					
name of action					
name of action					
<b>Total</b>	<b>7,890</b>	<b>9,090</b>	<b>9,890</b>	<b>24,300</b>	

- Provide a recycled water use optimization plan which includes actions to facilitate the use of recycled water (dual distribution systems, promote recirculating uses) pg 6-7 Reference & Page Number

(Water Code §10634)

- Discuss water quality impacts (by source) upon water management strategies and supply reliability pg 7-1 to 7-8 Reference & Page Number
- No water quality impacts projected pg 7-1 Reference & Page Number

Table 39 Current & projected water supply changes due to water quality - percentage						
water source	2005	2010	2015	2020	2025	2030 - opt

(Water Code § 10635 (a))

- Compare the projected normal water supply to projected normal water use over the next 20 years, in 5-year increments. pg 8-6 Reference & Page Number

Table 40 Projected Normal Water Supply - AF Year					
(from table 4)	2010	2015	2020	2025	2030 - opt

<b>Supply</b>	100,700	108,000	124,400	132,900	140,400
% of year 2005	105.2%	112.9%	130.0%	138.9%	146.7%

Table 41 Projected Normal Water Demand - AF Year					
(from table 15)	2010	2015	2020	2025	2030 - opt
<b>Demand</b>	100,700	108,000	124,400	132,900	140,400
% of year 2005	108.2%	116.0%	133.6%	142.7%	150.8%

Table 42 Projected Supply and Demand Comparison - AF Year					
	2010	2015	2020	2025	2030 - opt
<b>Supply totals</b>	100,700	108,000	124,400	132,900	140,400
<b>Demand totals</b>	100,700	108,000	124,400	132,900	140,400
<b>Difference</b>	0	0	0	0	0
Difference as % of Supply	0.0%	0.0%	0.0%	0.0%	0.0%
Difference as % of Demand	0.0%	0.0%	0.0%	0.0%	0.0%

(Water Code § 10635 (a))

X

Compare the projected single-dry year water supply to projected single-dry year water use over the next 20 years, in 5-year increments. pg 8-7 Reference & Page Number

Table 43 Projected single dry year Water Supply - AF Year					
	2010	2015	2020	2025	2030 - opt
<b>Supply</b>	108,215	116,163	133,130	142,377	150,543
% of projected normal	107.5%	107.6%	107.0%	107.1%	

Table 44 Projected single dry year Water Demand - AF Year					
	2010	2015	2020	2025	2030 - opt
<b>Demand</b>	108,215	116,163	133,130	142,377	150,543
% of projected normal	107.5%	107.6%	107.0%	107.1%	

Table 45 Projected single dry year Supply and Demand Comparison - AF Year					
	2010	2015	2020	2025	2030 - opt
<b>Supply totals</b>	108,215	116,163	133,130	142,377	150,543
<b>Demand totals</b>	108,215	116,163	133,130	142,377	150,543
<b>Difference</b>	0	0	0	0	0
Difference as % of Supply	0.0%	0.0%	0.0%	0.0%	0.0%
Difference as % of Demand	0.0%	0.0%	0.0%	0.0%	0.0%

(Water Code § 10635 (a))

X

Project a multiple-dry year period (as identified in Table 9) occurring between 2006-2010 and compare projected supply and demand during those years. pg 8-7 Reference & Page Number

Table 46 Projected supply during multiple dry year period ending in 2010 - AF Year					
---	--	--	--	--	--

	2006	2007	2008	2009	2010
Supply	93,863	98,501	105,269	99,675	93,872
% of projected normal	98.1%	102.9%	110.0%	104.2%	93.2%

**Table 47**  
Projected demand multiple dry year period ending in 2010 - AFY

	2006	2007	2008	2009	2010
Demand	93,863	98,501	105,269	102,758	99,864
% of projected normal	100.8%	105.8%	113.1%	110.4%	99.2%

**Table 48**  
Projected Supply and Demand Comparison during multiple dry year period ending in 2010- AF Year

	2006	2007	2008	2009	2010
Supply totals	93,863	98,501	105,269	99,675	93,872
Demand totals	93,863	98,501	105,269	102,758	99,864
Difference	0	0	0	(3,083)	(5,992)
Difference as % of Supply	0.0%	0.0%	0.0%	-3.1%	-6.4%
Difference as % of Demand	0.0%	0.0%	0.0%	-3.0%	-6.0%

X

Project a multiple-dry year period (as identified in Table 9) occurring between 2011-2015 and compare projected supply and demand during those years pg 8-8 Reference & Page Number

**Table 49**  
Projected supply during multiple dry year period ending in 2015 - AF Year

	2011	2012	2013	2014	2015
Supply	101,332	106,200	113,376	106,016	98,524
% of projected normal	100.6%	105.5%	112.6%	105.3%	91.2%

**Table 50**  
Projected demand multiple dry year period ending in 2015 - AFY

	2011	2012	2013	2014	2015
Demand	101,332	106,200	113,376	110,434	107,092
% of projected normal	100.6%	105.5%	112.6%	109.7%	99.2%

**Table 51**  
Projected Supply and Demand Comparison during multiple dry year period ending in 2015- AF Year

	2011	2012	2013	2014	2015
Supply totals	101,332	106,200	113,376	106,016	98,524
Demand totals	101,332	106,200	113,376	110,434	107,092
Difference	0	0	0	(4,418)	(8,568)
Difference as % of Supply	0.0%	0.0%	0.0%	-4.2%	-8.7%
Difference as % of Demand	0.0%	0.0%	0.0%	-4.0%	-8.0%

X

Project a multiple-dry year period (as identified in Table 9) occurring between 2016-2020 and compare projected supply and demand during those years pg 8-8 Reference & Page Number

**Table 52**  
Projected supply during multiple dry year period ending in 2020 - AF Year

	2016	2017	2018	2019	2020
Supply	108,563	114,004	121,906	115,619	113,554
% of projected normal	100.5%	105.6%	112.9%	107.1%	91.3%

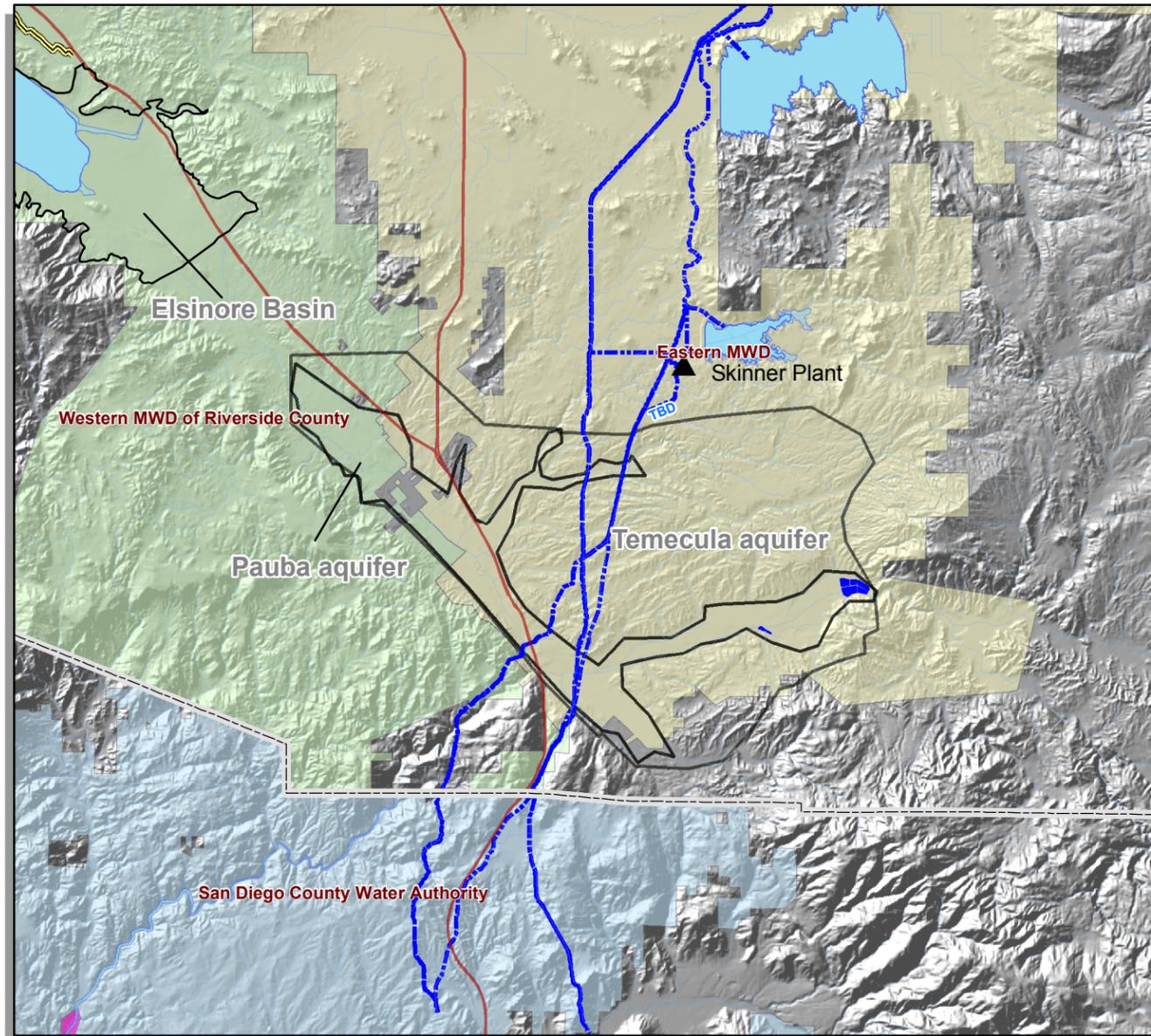
**Table 53**



<input type="checkbox"/>	2000 UWMP not required		Reference & Page Number
<b>(Water Code § 10644 (a))</b>			
<input checked="" type="checkbox"/>	Provide 2005 UWMP to DWR, and cities and counties within 30 days of adoption	Appx D	Reference & Page Number
<b>(Water Code § 10645)</b>			
<input checked="" type="checkbox"/>	Does UWMP or correspondence accompanying it show where it is available for public review	Appx C	Reference & Page Number

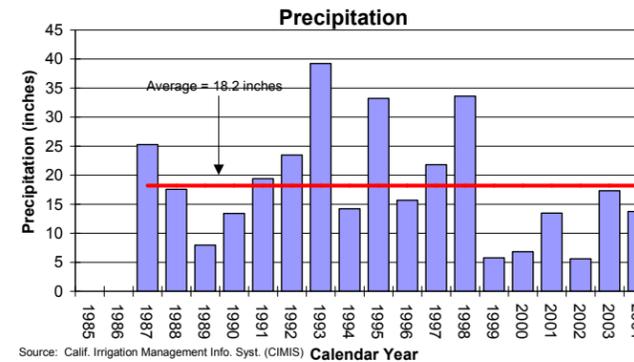
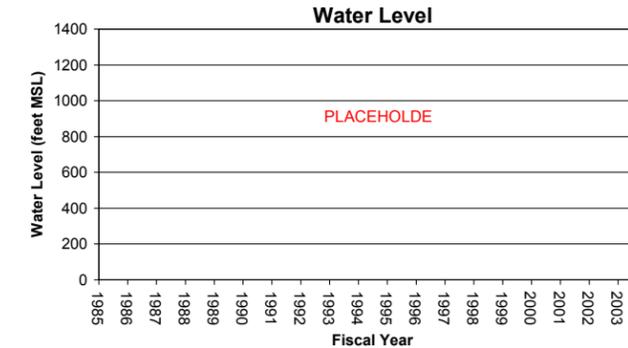
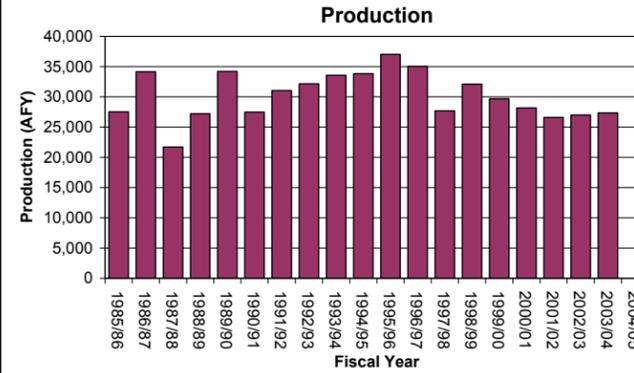
# **APPENDIX B**

## **BASIN DESCRIPTION**

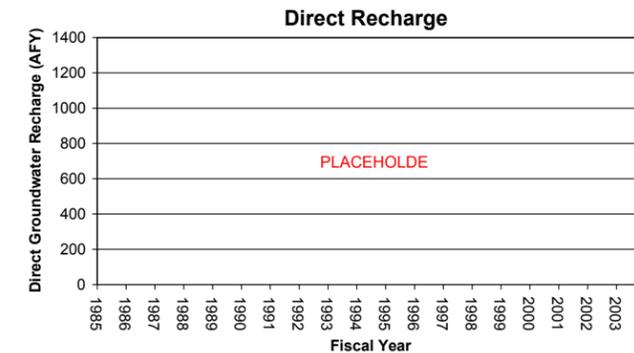


**Temecula-Murrieta Basin**

- ▲ MWD Facility
- Stream
- Freeways
- Santa Ana Regional Interceptor Line
- MWD Pipeline
- Water Body
- County
- Recharge Basins
- Elsinore



Source: Calif. Irrigation Management Info. Syst. (CIMIS)



**BASIN FACTS**  
**Temecula-Murrieta Basin**

**Description**  
**Location:** Riverside and San Diego Counties  
**Watershed Surface Area:** 137 square miles  
**MWD Member Agency(s):**  
 Eastern Municipal Water District  
 Western Municipal Water District  
**Management:** Adjudicated  
 Groundwater in connection with surface water is adjudicated under terms of Santa Margarita River Watermaster.  
**Safe/Operating Yield:** 34,400 AFY  
**Total Storage:** 1.3 to 2.0 MAF  
**Usable Storage:** 250,000 to 500,000 AF  
**Storage Space Available:** Data not available  
**Storage and Extraction Facilities**  
**Production Wells**  
 Production Capacity: 37,000 AFY  
 Average: ~31,700 AFY  
**Injection Wells**  
 Injection Capacity: None  
 Average: None  
**Spreading Basins**  
 Spreading Capacity: Data not available  
 Average: 16,000 AFY  
**Basin Constraints**

- Diversion and pumping limitations of the Santa Margarita River Watermaster and other diversion/pumping rights



Note: This map was prepared by the Metropolitan Water District of Southern California for its own use. No warranty is expressed or implied as to the correctness, timeliness, or content of the information shown herein.

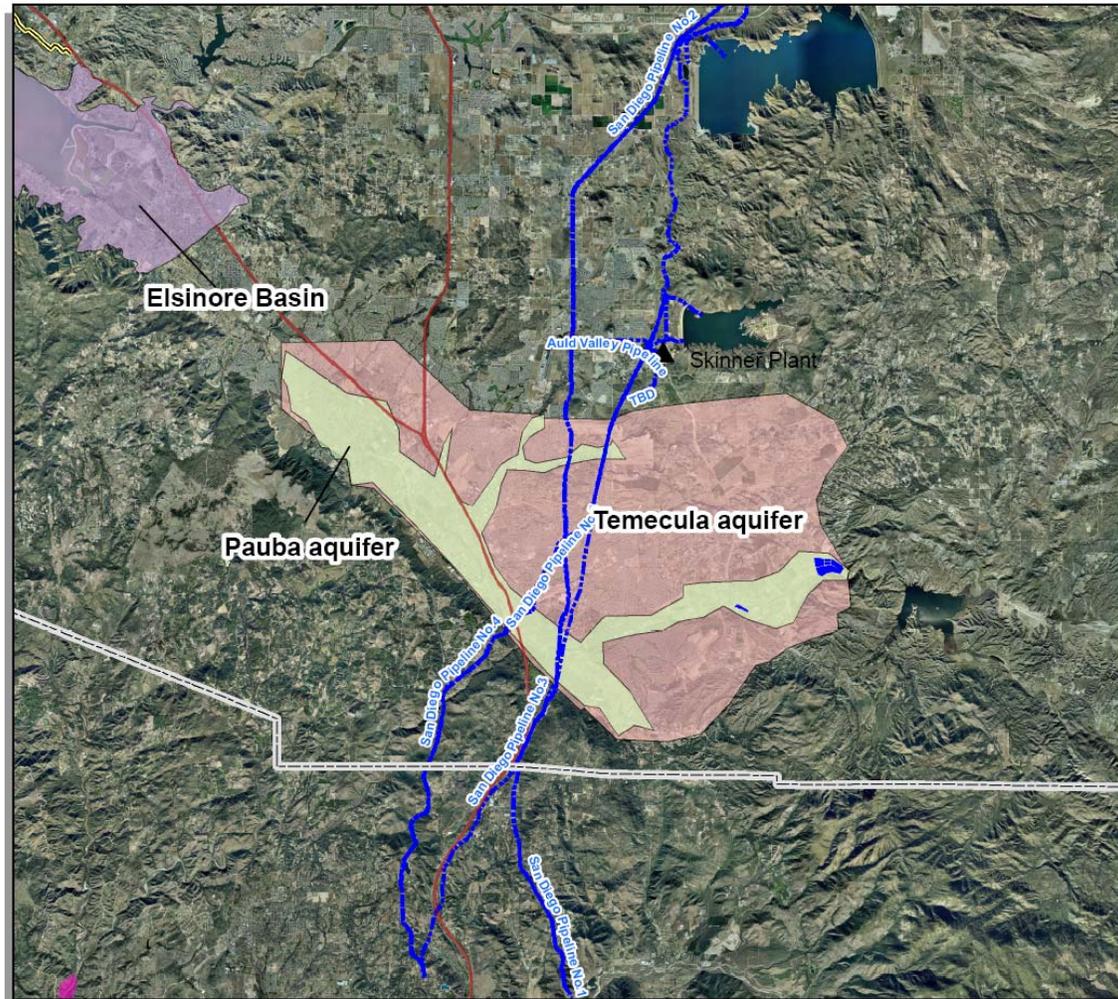
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Additional Data Source(s): Santa Ana Watershed Project Authority (SAWPA); California Spatial Information Library (CaSIL).

# Temecula-Murrieta Basin

The Temecula-Murrieta Basin underlies several valleys in southwestern Riverside County and a portion of northern San Diego County. Alluvial sediments extend through Pauba Valley, Temecula-Murrieta Valley, Santa Gertrudis Valley, and Wolf Valley. These basins underlie the Metropolitan member agency service areas of Eastern Municipal Water District (Eastern MWD) and Western Municipal Water District (Western MWD). A map of the Temecula-Murrieta Basin is provided in **Figure 1**.

**Figure 1**  
**Map of Temecula-Murrieta Basin**



## Temecula-Murrieta Basin

-  MWD Facility
-  Freeways
-  Santa Ana Regional Interceptor Line
-  MWD Pipeline
-  County
-  Recharge Basins
-  Elsinore



3 1.5 0 3 Miles

**I. BASIN CHARACTERIZATION**

The following section provides a physical description of the Temecula-Murrieta Basin, including its geographic location and hydrogeologic character.

**A. Basin Producing Zones and Storage Capacity**

There are two aquifers within the Temecula-Murrieta Basin: the Pauba aquifer and the Temecula aquifer. Within these two aquifers Rancho California Water District (RCWD) has identified eight underlying groundwater basins, which are based upon surface water hydrology subbasins: Pauba Valley Basin, Lower Mesa Basin, Upper Mesa Basin, North Murrieta Basin, South Murrieta Basin, San Gertrudis Basin, Wolf Valley Basin, and Palomar Basin. For purposes of this report, the extent of the groundwater basins are defined by the extent of the principal aquifers rather than surface water designations. The Pauba aquifer consists of younger, unconfined alluvium deposited within the Temecula-Murrieta Basin. The deeper Temecula aquifer is semi-confined and confined, and underlies and extends beyond the boundaries of the Pauba aquifer. A description of each aquifer follows.

The Lancaster, Aguanga, and Agua Caliente faults and several strands of the Elsinore fault zone cross the basin and may affect groundwater movement. The Wildomar fault is a groundwater barrier that produces differences in water level and pressure in the northwestern part of the basin. Murrieta Hot Springs lie along an unnamed fault indicating that the fault affects subsurface flow (DWR, 2004). Significant differences in water levels can occur across this fault and RCWD reports that pumping wells on one side of this fault do not discernibly affect the piezometric levels on the other side of the fault.

**1. Pauba aquifer**

The Pauba aquifer covers approximately 18 square miles. Alluvial sediments extend through Pauba Valley, Temecula-Murrieta Valley, Santa Gertrudis Valley, and Wolf Valley. The Pauba Valley occurs along Temecula Creek and extends approximately seven miles westward from Vail Lake. Well yields in the unconfined alluvial aquifer of the Pauba Valley are excellent, and typically range from 500 gpm to 2,000 gpm. The Pauba aquifer is underlain by the confined Temecula aquifer. The storage capacity of the Pauba aquifer has been estimated at 200,000 AF.

**2. Temecula aquifer**

The Temecula aquifer extends over an area of approximately 100 square miles and is comprised of consolidated sediments that underlie and extend beyond the boundaries of the Pauba aquifer. Sediment depths within the Temecula aquifer are typically 1,000 feet or more. Except for upstream forebay areas, confining layers separate the Pauba and Temecula aquifers, and groundwater is confined or semi-confined throughout the Temecula aquifer. RCWD reports well yields ranging from several hundred gpm to approximately 2,000 gpm.

Estimates for the amount of groundwater stored within the Temecula aquifer vary widely. The Santa Margarita River Watermaster estimated total groundwater storage in the uppermost 500 feet at 1,340,556 AF as of September 30, 2001. RCWD reports total groundwater storage with the Temecula aquifer at approximately 2 million AF. DWR reports groundwater storage

within the Pauba and Temecula aquifers at approximately 250,000 AF. Anchor Environmental estimated the Temecula aquifer storage capacity at approximately 300,000 AF, given the approximated 100 square mile areal extent of the 1,000-foot thick aquifer, a specific yield of 0.5 percent.

A summary of the hydrogeologic parameters of the Temecula-Murrieta Basin is presented in **Table 1**.

**Table 1**  
**Summary of Hydrogeologic Parameters of Temecula Valley Basin**

<b>Parameter</b>	<b>Description</b>
<b>Structure</b>	
Aquifer(s)	Temecula Valley aquifer Pauba aquifer
Depth of groundwater basin	>2,500 feet
Thickness of water-bearing units	Temecula aquifer: 1,000 feet or more Pauba aquifer: 50 to 250 feet
<b>Yield and storage</b>	
Natural safe yield	34,400 AFY
Total Storage	1.34 to 2 million AF
Usable Storage	Temecula and Pauba aquifers: 250,000 to 500,000 AF
Available Storage	Data not available

Source: DWR, 2004; RCWD, 2005; Anchor Environmental, 2004; and Santa Margarita River Watermaster, 2005

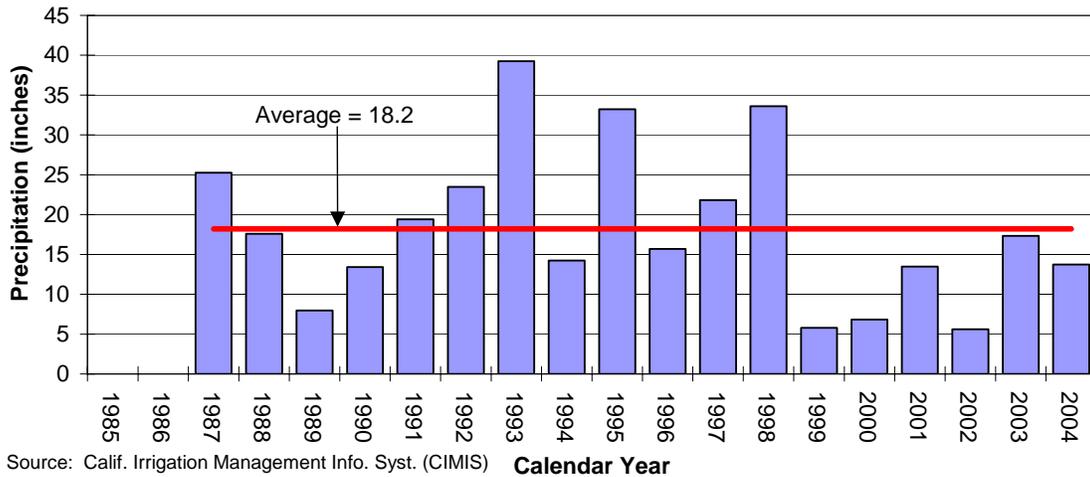
**B. Safe Yield/Long-Term Balance of Recharge and Discharge**

Average precipitation in the Temecula Valley is about 18.2 inches per year. **Figure 2** presents historical precipitation at the California Irrigation Management Information System (CIMIS) station Temecula #62. Extremely wet years occurred in 1993, 1995 and 1998. Very dry years occurred in 1989, 1999, 2000, 2001, and 2002.

According to RCWD’s groundwater model, the average natural inflow (recharge, return flow, stream percolation and underflow) for all eight basins is 41,000 AFY when no artificial recharge is occurring (CDM, 2005). There are seven years in which the natural inflow has exceeded 70,000 AFY. The average natural basin outflow for all eight groundwater basins from 1935 to 1998 was 6,600 AFY. The natural yield of the eight basins equals the natural inflows less the

natural losses, which would be 34,400 AFY. Further descriptions on the recharge characteristics of the Pauba aquifer and the Temecula aquifer follow.

**Figure 2**  
**Historical Precipitation in the Temecula Valleys**  
**(CIMIS Station #62)**



**1. Pauba aquifer**

As discussed above, the alluvial sediments of the Pauba aquifer extend through four valleys: Pauba Valley, Temecula-Murrieta Valley, Santa Gertrudis Valley, and Wolf Valley. The upstream portion of the Pauba Valley is a key forebay that recharges both the Pauba aquifer and the underlying Temecula aquifer. Pauba aquifer depths downstream from the forebay are typically in excess of 100 feet and extend to depths of more than 250 feet.

The Temecula-Murrieta Valley extends along Murrieta Creek northward from the Santa Margarita River confluence. The Murrieta forebay is located in the upstream portion of the Valley, and the forebay recharges both the alluvial sediments of the Temecula-Murrieta Valley and the underlying Temecula aquifer. Downstream from the forebay, confining layers separate overlying alluvial sediments from the underlying Temecula aquifer. Sediment depths in the unconfined portion of the Valley (Pauba aquifer) are typically in excess of 100 feet in depth, and extend to a maximum depth of approximately 200 feet.

The Santa Gertrudis Valley is a long and narrow valley that extends eastward from the Temecula-Murrieta Valley along Santa Gertrudis Creek. A forebay exists at the upstream end of the Valley that recharges both the unconfined alluvial sediments of the Valley (Pauba aquifer) and the underlying confined Temecula aquifer. The Pauba aquifer depths downstream from the forebay typically range from 50 to 100 feet.

Wolf Valley extends southward approximately three miles from the confluence of Pechanga Creek and Temecula Creek. A forebay exists at the upstream (south) end of Wolf Valley that recharges both the unconfined alluvial sediments of the Wolf Valley (Pauba aquifer) and the

underlying Temecula aquifer. Pauba aquifer depths downstream from the Wolf Valley forebay range from 50 to 80 feet.

## **2. Temecula aquifer**

The Temecula aquifer is a deeper, confined or semi-confined aquifer below the Pauba aquifer. Streamflow infiltration in unconfined alluvial forebays represents the primary source of recharge to the Temecula aquifer. Such streamflow infiltration recharge occurs in upstream forebays within Pauba Valley, Wolf Valley, Temecula-Murrieta Valley, and Santa Gertrudis Valley. In addition, portions of the Temecula aquifer are exposed in the upland mesa portion of eastern Temecula, allowing for recharge through streamflow infiltration, applied water infiltration, and precipitation infiltration.

## **II. GROUNDWATER MANAGEMENT**

The following section describes how the basins are currently managed.

### **A. Basin Governance**

As part of the Santa Margarita River system, surface water and groundwater supporting surface water (defined as being in the older and younger alluvium) with the Temecula Valley have been under some form of court jurisdiction since 1928. Groundwater basins not contributing the Santa Margarita River system are not adjudicated. A summary of the governing agencies and their roles is presented in **Table 2**.

Rights to utilize the groundwater and the water stored in Vail Lake are defined in the 1940 Stipulated Judgment in the case of Santa Margarita versus Vail and Appropriations Permit 7032 issued by the State Water Resources Control Board. A Watermaster has been assigned by the court to oversee all uses within the Santa Margarita River Watershed. The Stipulated Judgment assigns two-thirds of all natural waters to Camp Pendleton and the remaining one third to RCWD. Inflow to Vail Lake is not stored, but rather is passed through to Temecula Creek from May through October (CDM, 2005)

In March 1989, the Court appointed a James S. Jenks as Watermaster (who has since been replaced by Chuck Binder) to administer and enforce the provisions of the Modified Final Judgment and Decree and subsequent orders of the Court. The Court also appointed a Steering Committee, that at the conclusion of 2003-04 was comprised of representatives from the United States, Eastern Municipal Water District, Fallbrook Public Utility District, Metropolitan, the Pechanga Tribe, and RCWD. The purposes of the Steering Committee are to assist the Court, to facilitate litigation, and to assist the Watermaster (Santa Margarita River Watershed Watermaster Report 2005.)

**Table 2**  
**Summary of Governing Agencies for Temecula-Murrieta Basin**

<b>Agency</b>	<b>Role</b>
Santa Margarita River Watershed Steering Committee	Assist the Court, to facilitate litigation, and to assist the Watermaster
Chuck Binder	Court-appointed Santa Margarita River Watermaster
Rancho California Water District	Prepares Groundwater Audit and Recommend Groundwater Production Report

In addition, each year the RCWD prepares a Groundwater Audit and a Recommended Groundwater Production Report (RGPR). The amount of groundwater that can be produced varies due to such factors as rainfall, recharge area, and amount and location of well pumping capacity (RCWD, 1997).

#### **B. Interactions with Adjoining Basins**

The Temecula-Murrieta Basin is adjacent to the Elsinore Basin. When groundwater levels are above 1,100 feet MSL in the southeastern portion of the Elsinore Basin, small amounts (less than 100 AFY) of groundwater could spill into the adjacent Temecula-Murrieta Basin (MWH,2003a). Current water levels are substantially below this level so there are no agreements regarding this flow.

### **III. WATER SUPPLY FACILITIES AND OPERATIONS**

The following section presents information on water supply facilities and operations. Facilities include more than 70 groundwater production wells, 4 groundwater recovery wells and spreading basins. Each of these facilities is discussed in more detail below.

#### **A. Active Production Wells**

A summary of production wells in the Temecula-Murrieta Basin is presented in **Table 3**.

**Table 3  
Summary of Production Wells in Temecula Valley Basin**

Category	Number of Wells	Estimated Production Capacity (AFY)	Average Production (AFY)	Well Operation Cost (\$/AF)
<b>Pauba/Temecula aquifers</b>				
Municipal	RCWD: 52 EMWD: 0 MCWD: 5 FPUD: <u>3</u> Subtotal: 60	Data not available	RCWD: 28,800 EMWD: 0 MCWD: 760 FPUD: <u>0</u> Subtotal: 29,560	Data not available
Private "Substantial Users" (2003-04 Production)	Pechanga: 11 Others: Data not available		Pechanga: 721 Others: <u>1,377</u> Subtotal: 2,098	
<b>Totals</b>	<b>&gt;71</b>		<b>31,658</b>	

Sources: Santa Margarita River Watermaster, 2004; Santa Margarita River Watershed Management Plan, Watershed Assessment Report Draft, 2004

The agencies that pump from the eight basins include RCWD, Eastern MWD, Western MWD (formerly Murrieta County Water District (MCWD)), the Pechanga Indian Reservation, and other private pumpers (RCWD, 2005). Well yields generally range to 300 gpm in the northwestern part of the basin, but reach 1,750 gpm for wells in Pauba Valley (DWR, 2004). RCWD, the largest of these agencies, encompasses almost 100,000 acres and provides retail water supply for a variety of agricultural and residential uses. Typical agricultural uses include avocados, citrus, and grapes while residential demands are for the rapidly growing cities of Temecula and Murrieta (RCWD, 1997).

RCWD maintains more than 100 production and monitoring wells within the Temecula Valley. RCWD currently has 52 production wells in the eight basins with a total instantaneous capacity of 46,400 gpm (104 cfs), not including four groundwater recovery wells in the Valle de los Caballos project. Total RCWD groundwater pumping is dependent on water demands and hydrologic conditions, but RCWD typically derives from 40 to 50 percent of its total water supply from local groundwaters of the Pauba and Temecula aquifers. From 1984/85 to 2003/04, RCWD groundwater production ranged from 21,400 AFY to 36,100 AFY, averaging 28,800 AFY (Santa Margarita River Watermaster, 2004).

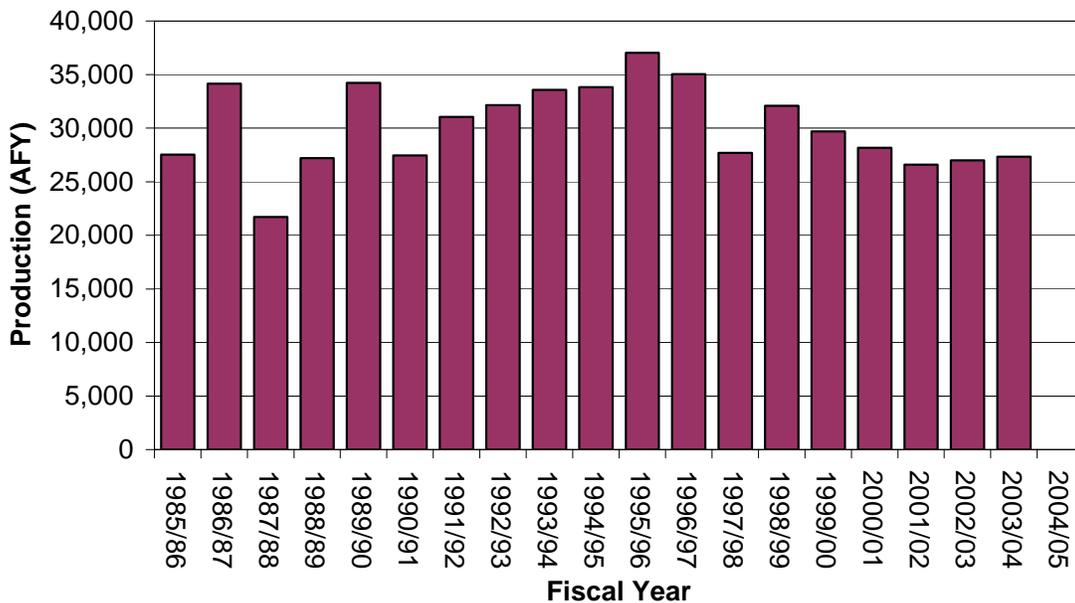
Eastern MWD has historically derived a small percentage of its domestic water supply from wells within the Temecula Valley. From 1984-85 to 2003-04, EMWD groundwater production from the Temecula Valley ranged from 0 AFY to 685 AFY, averaging 317 AFY (Santa Margarita River Watermaster, 2004). In 2004, Eastern MWD destroyed its one remaining well in the Temecula Valley.

Groundwater serves as the exclusive source of water supply for Western MWD, which acquired MCWD in 2005. Western MWD operates five water supply wells within the north end of the Temecula Valley. From 1984-85 to 2003-04, MCWD groundwater production from the Temecula Valley ranged from 286 AFY to 1979 AFY, averaging 760 AFY (Santa Margarita River Watermaster, 2004).

Fallbrook Public Utility District (FPUD) imports the majority of its water from SDCWA and Metropolitan, but it does have three wells in the Temecula Valley. From 1984-85 to 2003-04, FPUD groundwater production from the Valley ranged from 0 AFY to 94 AFY, averaging 20 AFY. There has been no production from these wells since 1994-95 (Santa Margarita River Watermaster, 2004).

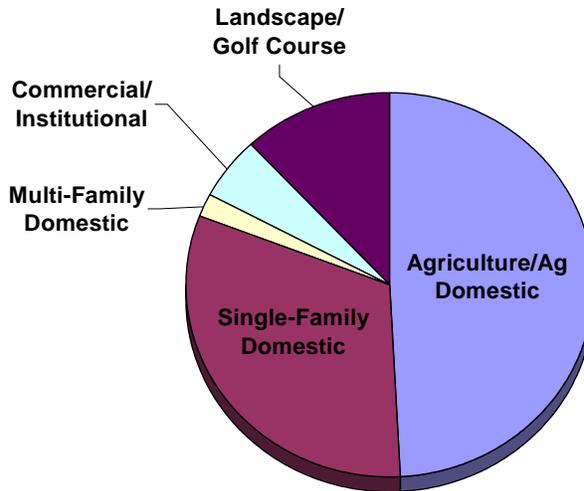
Historical municipal groundwater production for the Temecula Valley is presented in **Figure 3**. This figure does not include the production from substantial private users outside of these organized service areas.

**Figure 3**  
**Temecula Valley Historical Groundwater Production**



Agricultural demands continue to be a significant part of the RCWD demands, as shown in **Figure 4**. However, increased residential and commercial development in the Temecula Valley will result in greater domestic/commercial demands over time.

**Figure 4**  
**Year 2000 Consumptive Water Demands in RCWD Service Area**



Source: RCWD Urban Water Management Plan, 2005

**B. Other Production**

It is important to note that as a condition to receiving RCWD water service, RCWD requires local water users to convey overlying groundwater rights to RCWD. As a result, virtually no private groundwater wells exist within the RCWD service area. Outside of the RCWD service area, however, dozens of private well owners pump groundwater within the Temecula Valley. Most of the private wells are within the upstream portion of the Murrieta Valley, and are used for domestic or irrigation supply at private residences. In 2003-04, the Santa Margarita River Watermaster identified a total of nine private water users within the Temecula Valley as being "substantial users." During 2003-04, approximately 2,100 AF of groundwater was produced by these "substantial users" (Santa Margarita River Watermaster, 2004).

The Pechanga Indian Reservation is one of these "substantial users" and develops its potable and irrigation supplies from 11 onsite wells within the Temecula Valley. During 2003-04, the Pechanga Indian Reservation produced 721 AFY of groundwater from the Temecula-Murrieta Basin (Santa Margarita River Watermaster, 2004).

RCWD's Vail Dam appropriative right provides that the District may store up to 40,000 AF in Vail Reservoir each year between November 1 and April 30, subject to limitations, and that the water so stored may be used for irrigation and domestic uses incidental to farming operations on 3,797 acres of land between May 1 and October 31. Such use may be by direct diversion from Vail Lake or by recovery with wells of water released from Vail and spread downstream in Pauba Valley. The amount of local runoff reaching the lake can vary widely depending on hydrological conditions. From 1962 to 2000, flows into Vail Lake ranged from 218 AFY to

29,570 AFY, with an average flow of 5,150 AFY. The storage capacity of the lake is approximately 40,000 AF, with a surface area of 1,000 acres. Currently, RCWD only uses Vail Lake to store local runoff. The historical available storage of the lake has varied widely as well, including two periods when the reservoir was full in March 1984 and February 1997. The average available storage is approximately 30,900 AF.

### C. ASR Wells

RCWD operates four groundwater recovery wells – the Valle de los Caballos wells – at the Valle de los Caballos spreading basins discussed below.

### D. Spreading Basins

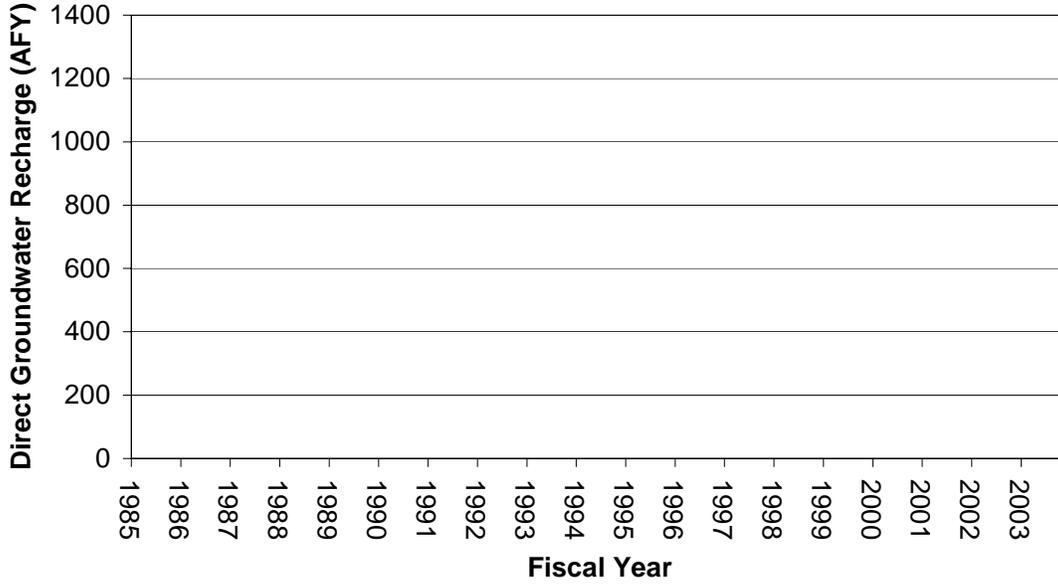
In addition to the extraction of the natural yield of the basins, RCWD artificially recharges the Pauba Valley Basin with untreated imported water for enhanced groundwater production. RCWD purchases imported water from Metropolitan and delivers it from the San Diego aqueduct turnout EM-19 to the Valle de los Caballos (VDC) recharge basins. In the past, the VDC recharge basins have provided up to 16,000 AFY of artificial groundwater recharge. These data are summarized in **Figure 5**.

RCWD stores local runoff in Vail Lake, which was created in 1948 through construction of Vail Dam on Temecula Creek. RCWD has a surface water storage permit in Vail Lake for up to 40,000 AF from November 1 to April 30. During these months, RCWD releases available water from Vail Lake to the VDC spreading basins, about 1.5 miles downstream, for groundwater recharge. From May through October, existing State permits prohibit storage and require inflow to pass through Vail Lake to Temecula Creek.  
(RCWD Urban Water Management Plan, 2005)

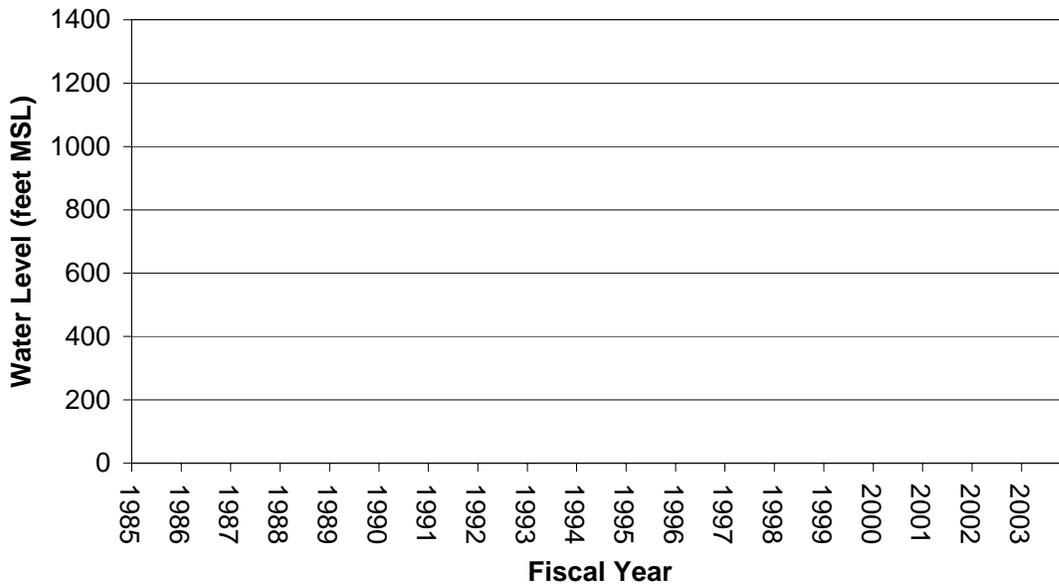
## IV. GROUNDWATER LEVELS

Groundwater flows southeastward under Murrieta and Temecula Valleys and southwestward beneath Pauba Valley to the southwestern part of the basin. RCWD noted an extended drawdown in groundwater levels from 1945 to 1978, with major recoveries during the wet years in 1980 and 1993. Significant declines again occurred during the relatively dry years after 1980 and 1993. Water levels declined 1.3 feet in 2003-04. In the central part of the basin, the water level in one well rose about 12 feet during 1990 through 1993. In the southwestern part of the basin, the water level in one well declined about 60 feet during 1980 through 1993, recovered about 50 feet during 1993, then declined about 15 feet during 1994 through 2000. The hydrograph of another well in the southwestern part of the basin indicates large seasonal variations in water levels. Historical water levels are provided in **Figure 6**.

**Figure 5**  
**Historical Groundwater Recharge in Temecula-Murrieta Basin**  
**PLACEHOLDER FOR GROUNDWATER RECHARGE**



**Figure 6**  
**Historical Water Levels in Temecula-Murrieta Basin**  
**PLACEHOLDER FOR REPRESENTATIVE HYDROGRAPH**



## **V. GROUNDWATER QUALITY**

This following section presents information on the groundwater quality of the Temecula-Murrieta Basin.

### **A. Groundwater Quality Monitoring**

RCWD continually monitors the water quality of the eight groundwater basins and its 54 wells. Every year RCWD conducts over 2,000 tests for water quality on each of its wells and throughout the distribution system.

### **B. Groundwater Contaminants**

Constituents of concern for the Temecula-Murrieta Basin are summarized in **Table 4**. These include: total dissolved solids (TDS), nitrate, volatile organic compounds (VOCs), perchlorate, fluoride and manganese. Groundwater in most of the Pauba aquifer and the Temecula aquifer is generally suitable for domestic and irrigation uses. TDS concentrations in the lower, confined and semi-confined Temecula aquifer tend to be lower than in the Pauba aquifer, though the percent sodium is higher in the Temecula aquifer. Nitrate levels are typically in compliance with drinking water MCLs, although nitrate levels have been found to be higher in the wells in the Santa Gertrudis Valley. Sampling at RCWD's wells between 2002 and 2004 has indicated that the primary MCL standard of 2 mg/L for fluoride has been exceeded. However, well water is blended with other well water and imported MWD water and the distribution system average level of fluoride was well below the MCL. Well sampling has also indicated high levels for manganese, but blending reduces the manganese concentration to the non-detect level. Groundwater is rated inferior for domestic use locally near Murrieta Hot Springs because of high nitrate and fluoride content.

### **C. Blending Needs**

RCWD blends groundwater with imported water from Metropolitan to reduce fluoride concentrations and manganese concentrations.

### **D. Groundwater Treatment**

Agencies chlorinate the groundwater. Data related to other treatment is currently not available.

## **VI. CURRENT GROUNDWATER STORAGE PROGRAMS**

RCWD artificially recharges the Pauba Valley Basin with untreated imported water for enhanced groundwater production. RCWD purchases imported water from the Metropolitan and delivers it from the San Diego aqueduct turnout EM-19 to the Valle de los Caballos (VDC) recharge basins. In the past, the VDC recharge basins have provided up to 16,000 AFY of artificial groundwater recharge.

**Table 4**  
**Summary of Constituents of Concern in Temecula Basins**

<b>Constituent</b>	<b>Units</b>	<b>Range</b>	<b>Description</b>
<b>TDS</b> Secondary MCL = 500	mg/L	200 to >1,000	In the unconfined Pauba aquifer, TDS ranges from 450 mg/L to greater than 1,000 mg/L. In the semi-confined and confined Temecula aquifer, TDS ranges from 200 mg/L to 600 mg/L. Percent sodium in the TDS for the Temecula aquifer can range from 55 to over 80 percent.
<b>Nitrate (as N)</b> Primary MCL = 10	mg/L	6.9 to 10	A sampling of 25 RCWD wells in 2003-04. High levels near Murrieta Hot Springs.
<b>VOCs (TCE and PCE)</b> Primary MCL TCE = 5 Primary MCL PCE = 5	µg/L	ND	No known detections of TCE or PCE.
<b>Perchlorate</b> Notification level = 6	µg/L	ND to 6.6	Detected in three RCWD wells since 2002. Only 1 well had a detection above notification level
<b>Fluoride</b> Primary MCL = 2	mg/L	0.2 to 7.6	A sampling of RCWD wells from 2002 to 2004. After blending with other well water and imported water, distribution system average was 0.4 mg/L. High levels near Murrieta Hot Springs.
<b>Manganese</b> Secondary MCL = 50	µg/L	50 to 250	RCWD wells. After blending with other well water and imported water, distribution system average was to non-detect level.

Sources: Santa Margarita River Watershed Annual Watermaster Report, 2005; RCWD Urban Water Management Plan, 2005; Santa Margarita River Watershed Management Plan, Watershed Assessment Report Draft, 2004

**VII. BASIN CONSTRAINTS ON STORAGE AND EXTRACTION**

The Temecula-Murrieta Basin is subject to the diversion and pumping limitations of the Santa Margarita River Watermaster, and to other local surface water diversion and groundwater pumping rights.

In addition, each year the RCWD prepares a Groundwater Audit and a Recommended Groundwater Production Report (RGPR). The amount of groundwater that can be produced varies due to such factors as rainfall, recharge area, and amount and location of well pumping capacity.

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# **APPENDIX C**

## **WATER SHORTAGE CONTINGENCY PLAN**

# **WATER SHORTAGE CONTINGENCY PLAN**

## **Rancho California Water District**

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# Water Shortage Contingency Plan

## Rancho California Water District

### Section 1

#### Purpose and Principles of Plan

##### 1.1 Water Code 10632

The Rancho California Water District (District) has developed a Water Shortage Contingency Plan (Plan) in accordance with California Water Code 10632. The Water Code 10632 states that water agencies must develop a supply shortage contingency plan in the event of drought, water supply reductions, failure of water distribution system, or other emergencies. The contingency plan must demonstrate the ability of an agency to meet demands under a supply shortage of up to 50 percent. Emphasis is placed on protection of public health, sanitation, fire protection, and general public welfare.

As such, this Plan adopts regulations and restrictions on outdoor water use only, including domestic, commercial/institutional, parks and golf courses, and agriculture. Recycled water users may be exempt from some restrictions in this Plan.

##### 1.2 Metropolitan Water District of Southern California Water Surplus and Drought Management Plan

The District currently receives approximately 65 percent of its total water supply (treated and untreated) from the Metropolitan Water District of Southern California (MWD). This imported water is delivered through water connections of the Eastern Municipal Water District (EMWD) and Western Municipal Water District of Riverside County (WMWD). Both EMWD and WMWD are member agencies of MWD, and therefore the District is subject to MWD's plans and policies during a water shortage.

To deal with periods of water surplus and drought, MWD developed its Water Surplus and Drought Management Plan (WSDM Plan). MWD strategically manages water in times of surplus to ensure there is an adequate supply during a shortage. The WSDM Plan defines surplus and shortage conditions as follows:

**Surplus:** Supplies are sufficient to allow MWD to meet full service demands, make deliveries to all interruptible programs (replenishment, long-term seasonal storage, and agricultural deliveries), and deliver water to regional and local facilities for storage.

**Shortage:** Supplies are sufficient to allow MWD to meet full service demands and make partial or full deliveries to interruptible programs, sometimes using stored water and voluntary water transfers.

**Severe Shortage:** Supplies are insufficient to meet full service demands and MWD is required to make withdrawals from storage, call on its water

transfers, and possibly call for extraordinary drought conservation and reduce deliveries under the Interim Agriculture Water Program (IAWP).

**Extreme Shortage:** Supplies are insufficient to meet full service demands and MWD is required to allocate its available imported supplies to its member agencies.

The following actions represent MWD's plan for dealing with supply shortages in the general order they would be implemented:

- Draw on stored water in the Diamond Valley Lake
- Draw on out-of-region groundwater storage in Semitropic and Arvin-Edison
- Reduce/suspend discounted long-term groundwater and surface storage replenishment deliveries
- Draw on contractual groundwater storage programs within the region
- Draw on State Water Project terminus reservoir storage
- Call for extraordinary drought conservation and public education
- Reduce agricultural deliveries in accordance with IAWP
- Call on water transfer options contracts and purchase transfers on the spot market
- Allocate MWD's firm imported supplies to its member agencies

### **1.3 Metropolitan Water District of Southern California Interim Agricultural Water Program**

In 2005, the District served approximately 1,700 Agriculture and Agriculture/Domestic accounts and delivered about 25,000 acre-feet (AF) of water to these customers (representing about 36 percent of total water deliveries). Most of these agriculture and agriculture/domestic deliveries are subject to MWD's IAWP.

The IAWP offers interruptible water to Southern California's agricultural industry at discounted water rates. These agricultural water supplies will be interrupted as part of MWD's shortage actions. MWD will work with IAWP participants to provide as much advance warning of interruption as possible. The IAWP reflects current policies toward agricultural water users. The policies underlying this program are due to be reviewed during the ten-year period of the WSDM Plan and the plan will be adjusted accordingly.

According to MWD's IAWP Reduction Guidelines, MWD has the right to discontinue surplus water service in whole or in part with one year's written notice. After a purchaser is given a notice of discontinuation, MWD's General Manager may reduce IAWP deliveries up to 30 percent prior to any urban water allocation action under the WSDM Plan.

The timing of potential IAWP reductions is important to note as Colorado River and State Water Project (SWP) supplies are determined annually. The initial supply allocation is estimated in December; however, the SWP supply is uncertain and not final until May 1. Typically May 1 is when a notification would be made by MWD regarding a reduction in IAWP water deliveries, with actual reductions occurring 60 days later on July 1.

If MWD requires a utility to reduce IAWP water usage, water usage targets for the upcoming year are established based on water use during the previous year. Once this baseline water use target is established it will remain in place as long as the reduction is in effect, even if it goes beyond the fiscal year. Actual IAWP water consumption will be measured every six months. If an agency used less water than it was allotted it receives a credit that carries over into the next six month period. If the agency used more water than it was allotted via the established baseline then it is assigned a debit. If an agency uses more water than it is allotted they have to pay MWD's penalty rate for the amount of water over the established baseline.

#### **1.4 Principles of District's Water Shortage Contingency Plan**

The overall principle of the District's Plan is to reliably meet water demands during shortages caused by droughts, supply reductions, and emergency conditions. The Plan recognizes the following priorities for potable water:

1. Public safety, health and welfare
2. Economic sustainability
3. Quality of life for the District's customers

The potable water use regulated and/or prohibited under this Plan is considered to be non-essential use. Continued use of such water during times of water shortage or other emergency supply conditions are deemed to constitute a waste of water and will be subject to appropriate penalties as described in Section 4 of this Plan.

In the event that the reduction in water sales as a result of implementation of the Plan negatively impacts the coverage of the District's fixed costs obligations, the District will utilize its cash reserves (see Section 5 of this Plan).

#### **1.5 Public Notice and Coordination with Other Water Agencies**

The District will periodically provide the public with information about the Plan, including its implementation. Such information will include, but not limited to, stages of action, restrictions on water use, water-saving tips, and potential penalties for non-compliance of Plan. In addition, the District will coordinate its implementation of its Plan with EMWD, WMWD and MWD. This will be necessary to ensure efficient regional water management during periods of water supply shortage.

## Section 2 Authorization and Application of Plan

### 2.1 Authorization of Plan

The water shortage contingency measures of this Plan shall apply to all persons, customers, and property using water provided by the District. The terms “persons” and “customers” used in this Plan include individuals, home and property owners, corporations, businesses, agencies, associations, and all other legal entities.

A declaration by the Board or the General Manager of a water shortage condition as outlined below shall be made by public announcement and shall be published in a newspaper of general circulation. The declaration shall become effective immediately upon such publication.

There are two basic conditions which can trigger the declaration of the Plan:

#### **Condition No. 1: Long and Short Term Water Supply Deficiencies**

As outlined in Water Code 10632, the District’s General Manager shall request the Board of Directors (Board) to authorize and implement provisions of the Plan, which declares that the demand for District water is anticipated to be in excess of water supply. The request shall be made at a regular or special meeting of the Board where findings will dictate the necessity, if any, to implement the measures of the Plan. The Board will have the authority to initiate or terminate any of the measures described in the Plan.

#### **Condition No. 2: Emergency Water Shortage Response**

Emergency water shortages are defined as an unexpected event that prevents adequate water to be delivered to customers due to a problem in the District’s water distribution system. By adopting this Plan, the Board authorizes the General Manager to declare the extent of the water shortage emergency and to indicate which measures of the Plan are needed.

### 2.2 Criteria for Water Shortage Stages

The District will continue to monitor water demands and supplies on a regular basis and shall determine when conditions warrant initiation or termination of each stage of the Plan as follows:

**Stage 1 - Normal Conditions:** the District’s General Manager has declared that the District’s water supply is a “normal condition.” Customers are requested to continue to use water efficiently, maximize recycled water use, practice sensible water conservation and take advantage of the District’s indoor and outdoor water conservation incentive programs so water is not wasted. Water waste is in violation of California Law and District regulations at any Stage.

**Stage 2 - Water Alert:** there is a probability that the District may not be able to meet all of the water demands of its customers. This may correlate to MWD’s WSDM Plan stage of “Shortage”, or may mean groundwater levels and Vail Lake levels are lower

than normal. Expected water shortages are less than 10 percent. Additional voluntary conservation measures will be called upon during this stage. Some restrictions on certain non-essential outdoor water use may be implemented.

**Stage 3 – Water Warning:** water supplies are not sufficient to meet the District’s demands by more than 10 percent, but less than 30 percent. This may correlate to MWD’s WSDM Plan stage of “Severe Shortage”. During this stage it is anticipated that the District’s agricultural customers will be asked to comply with MWD’s IAWP. Some restrictions on certain non-essential outdoor urban water use will be implemented. Penalties for non-compliance of such restrictions will be imposed.

**Stage 4 – Extreme Water Warning:** water supplies are not sufficient to meet the District’s demands by more than 30 percent, but less than 50 percent. This may correlate to MWD’s WSDM Plan stage of “Extreme Shortage”. During this stage the District’s agricultural customers will comply with MWD’s IAWP and urban landscapes will greatly reduce water use. No new landscaping will be allowed. If this stage is the result of an extended drought and has been triggered by Condition No. 1 of Section 2 of this Plan, the District will explore increased conservation incentives for demand management measures that will have immediate and substantial impacts on water demands. More severe restrictions on non-essential outdoor water use will be implemented. Penalties for non-compliance of such restrictions will be imposed.

**Stage 5 – Water Emergency:** water supplies are not sufficient to meet the District’s demands by more than 50 percent. This may correlate to MWD’s WSDM Plan stage of “Extreme Shortage” or may be as a result of an emergency situation resulting in the inability of the District’s water distribution system to deliver all of the District’s supply. During this stage the District’s agricultural customers will greatly reduce water consumption for permanent crops, or might even be discontinued. Restrictions on all non-essential outdoor water use will also be implemented. Severe penalties for non-compliance of such restrictions will be imposed.

## Section 3

# Supply Shortage Contingency Measures

The following represents the shortage contingency measures the District will impose for its domestic (household), commercial/institutional, and agricultural customers. Through timely communication, using various local outlets, the District will provide updates regarding supply conditions and Plan Stages. The District is not responsible for any customer issues that may arise from the implementation of the Plan or adjustment in timing of the Plan's Stages.

### 3.1 Domestic (Household) Customers

#### Stage 2 - Water Alert (shortages under 10 percent):

The following voluntary measures will be requested:

1. Do not hose down driveways or other hardscape surfaces.
2. Irrigate lawns and landscape only between 8:00 pm and 6:00 am (unless hand watering). Adjust automatic irrigation timers according to changing weather patterns and landscape requirements.
3. Refrain from using decorative fountains unless they are equipped with a recycling system.
4. Install pool and spa covers to minimize evaporative water loss.
5. Do not allow hoses to run while washing vehicles. Use a bucket or a hose with automatic shutoff valve.

No penalties or mandatory restrictions will be imposed during this stage.

#### Stage 3 - Water Warning (shortages more than 10 to 30 percent):

Same measures as in Stage 2, but now those measures are mandatory. In addition, the following mandatory measures will be imposed:

1. Irrigate lawns and landscape only between midnight and 6:00 am, and only every other day. Addresses with odd last digit (1, 3, 5, 7, 9) water on odd-numbered days of the month; while addresses with even last digit (0, 2, 4, 6, 8) water on even-numbered days.
2. If new landscaping must be installed, only landscaping meeting the specifications of "California-Friendly" landscaping as defined by the Metropolitan Water District of Southern California will be allowed.
3. No replacement water to be provided for ponds or lakes.
4. No water for decorative fountains to be used, even if it has a recycling system.

Penalties for non-compliance may be imposed for flagrant or repeat violations (see Section 4).

Stage 4 - Extreme Water Warning (shortages more than 30 to 50 percent):

Same mandatory measures as in Stages 2 and 3, with the following additional mandatory measures imposed:

1. Irrigate lawns and landscape only between midnight and 6:00 am, and only twice a week. Addresses with odd last digit (1, 3, 5, 7, 9) water on Sundays and Thursdays only; while addresses with even last digit (0, 2, 4, 6, 8) water Tuesdays and Saturdays only.
2. No planting of new landscaping (seed, sod, or other plant materials).
3. Washing of personal vehicles at home (including autos, trucks, trailers, motor homes, boats or others) is prohibited.
4. Water for refilling recreational swimming pools and spas is prohibited.

Penalties for non-compliance will be imposed (see Section 4).

Stage 5 - Water Emergency (shortages more than 50 percent):

Same mandatory measures as in Stages 2, 3 and 4, with the following additional mandatory measures imposed:

1. No irrigation of lawns, landscapes and/or gardens.

Penalties for non-compliance will be imposed (see Section 4).

### **3.2 Commercial/Institutional and Landscape Customers**

Stage 2 - Water Alert (shortages under 10 percent):

The following voluntary measures will be requested:

1. A recommended base water allocation for outdoor use for Commercial/Institutional Customers with no separate landscape meters will be calculated using the minimum month method outlined in Section 4 of this Plan. Outdoor water-use should not exceed 80-percent of the historical reference Evapotranspiration (ET) rate measured at CIMIS Station Number 62.
2. A recommended base water allocation for Commercial/Institutional Customers with a separate landscape meter will be calculated using the relevant landscape water meter. The base outdoor allocation will be established by calculating the maximum allowable project water demand as listed in Addendum Number 1 (the Water Budget Formula) to the County of Riverside Landscape and Irrigation Ordinance. The reference Evapotranspiration rate from CIMIS station 62 will be used.
3. All Commercial/Institutional and Landscape Customers, including but not limited to parks, school grounds, highway medians, commercial landscaping, and golf courses will be restricted to irrigation applications between 8:00 pm and 6:00 am only. These irrigators will be advised to adjust automatic irrigation timers according to changing weather patterns and landscape requirements. Recycled water customers will be exempt.
4. Refrain from using decorative fountains unless they are equipped with a recycling system.

5. Install pool and spa covers to minimize evaporative water loss.

No penalties or mandatory restrictions will be imposed during this stage.

Stage 3 - Water Warning (shortages more than 10 to 30 percent):

Same measures as in Stage 2, but now these measures are mandatory. In addition, the following mandatory measures will be imposed:

1. All Commercial/Institutional and Landscape Customers, including but not limited to parks, school grounds, highway medians, commercial landscaping, and golf courses will be restricted to irrigation applications between 10:00 pm and 6:00 am, and only twice a week. The District, at its discretion, may assign some or all commercial irrigators to watering groups and watering days. Outdoor water-use by Commercial, Institutional and Landscape customers will in no case exceed 60 percent of the historical reference Evapotranspiration (ET) rate as measured at CIMIS Station Number 62. Recycled water customers will be exempt provided signage on the site conforms to recycled water-use requirements and is clearly visible.
2. If new landscaping must be installed, only landscaping meeting the specifications of "California-Friendly" landscaping as defined by the Metropolitan Water District of Southern California will be allowed.
3. No replacement water to be provided for ponds or lakes. Recycled water customers, if applicable, will be exempted provided signage on the site conforms to recycled water-use requirements and is clearly visible.
4. No hosing down driveways, sidewalks or other hardscape except for California Department of Health Services prescribed health and sanitary reasons.
5. No washing of commercial or municipal vehicles unless necessary for public health and safety.
6. Commercial car wash consumption will be required to be reduced by 25 percent using on-site recycled water systems or other means.
7. No water for decorative fountains may be used, even if it has a recycling system.

Penalties for non-compliance will be imposed for flagrant or repeat violations (see Section 4).

Stage 4 - Extreme Water Warning (shortages more than 30 to 50 percent):

Same mandatory measures as in Stages 2 and 3, with the following additional mandatory measures imposed:

1. All Commercial/Institutional and Landscape Customers, including but not limited to parks, school grounds, highway medians, commercial landscaping, and golf courses will be restricted to irrigation applications between 10:00 pm and 6:00 am, and only once a week. The District, at its discretion, may assign some or all commercial irrigators to watering groups and watering days. Landscape meters will be restricted to a maximum of 25 percent of reference Evapotranspiration (ET) as measured at CIMIS Station Number 62. Recycled water customers will be exempt provided signage on the site conforms to recycled water-use requirements and is clearly visible.

2. No planting of new landscaping (seed, sod, or other plant materials).
3. Commercial car wash consumption will be required to be reduced by 50 percent using on-site recycled water systems or other means.
4. Water for refilling recreational swimming pools and spas is prohibited.
5. No new hydrant-construction or temporary construction meter permits will be issued by District.

Penalties for non-compliance will be imposed (see Section 4).

Stage 5 - Water Emergency (shortages more than 50 percent):

Same mandatory measures as in Stages 2, 3 and 4, with the following additional mandatory measures:

1. No irrigation of lawns and landscape. Recycled water customers will be exempted provided signage on the site conforms to recycled water-use requirements and is clearly visible.
2. No water for commercial car washes.
3. All hydrant-construction and/or temporary construction meter permits will be rescinded by the District.

Penalties for non-compliance will be imposed (see Section 4).

### **3.3 Agricultural Customers**

Although the District retains the right to implement actions independent of Metropolitan Water District, each successive stage, with respect to Agricultural Customers, will be triggered by actions associated with Metropolitan Water District's Interim Agricultural Water Program (IAWP) unless the District's Plan or an individual Stage in the Plan is triggered by a local event leading to either a Condition 1 scenario or a Condition 2 scenario as outlined in Section 2 of this Plan.

Stage 2 - Water Alert (shortages under 10 percent):

The following voluntary measures will be requested:

1. A recommended base agricultural water-use allocation will be established using reference Evapotranspiration (ET) and the generally accepted crop-coefficient for each permanent and non-permanent crop grown.
2. A recommended commercial nursery base water-use allocation will be established at 80% of the Evapotranspiration (ET) rate using historical data from CIMIS Station Number 62.

No penalties or mandatory restrictions will be imposed during this stage.

Stage 3 - Water Warning (shortages more than 10 to 30 percent):

The following mandatory measures will be implemented:

1. Commercial nursery customers will be required to reduce the recommended base water-use allocation by 20 percent. Commercial nursery customer water-

use will be restricted to irrigation applications from midnight to 6:00 am, and only on alternate days. The District, at its discretion, may assign some or all commercial nursery irrigators to watering groups and watering days.

2. Agricultural customers will be required to reduce the recommended base water-use allocation by 20 percent.

Penalties for non-compliance will be imposed for flagrant or repeat violations (see Section 4).

#### Stage 4 - Extreme Water Warning (shortages more than 30 to 50 percent):

Same mandatory measures as those in Stage 3, with the following additional mandatory measures imposed:

1. Commercial nursery customers will be required to reduce the recommended base water-use allocation by 50 percent. Commercial nursery customer water-use will be restricted to irrigation applications from midnight to 6:00 am, and only twice weekly. The District, at its discretion, may assign some or all commercial nursery irrigators to watering groups and watering days.
2. Agricultural customers will be required to reduce recommended base water-use allocation by 50 percent. The District, at its discretion, may assign agricultural customers to watering groups and watering days. In the event of a temporary service outage, service to be restored when Stage 4 is terminated.
3. No planting of new agricultural trees, vines or row crops.

Penalties for non-compliance will be imposed (see Section 4).

#### Stage 5 - Water Emergency (shortages more than 50 percent):

Same mandatory measures as in Stages 2, 3 and 4, with the following additional mandatory measures imposed:

1. All agricultural and commercial nursery customers will be required to reduce recommended base water-use allocation by 75 to 100 percent, depending on severity of water emergency. Water service may be completely discontinued until Stage 5 is terminated.

Penalties for non-compliance will be imposed (see Section 4).

## **Section 4**

### **Enforcement and Variances**

Measures called for in the stages of the District's Plan will be primarily enforced through financial penalties. In extreme cases, certain types of outdoor water service may be discontinued until the emergency situation is over.

For most customers, financial penalties will be imposed using a base period water demand allocation.

#### **4.1 Domestic and Commercial Customers with No Separate Irrigation Meters Present**

For domestic and commercial customers without separate irrigation meters, the base period water demand allocation for outdoor water use will be calculated using a base year. The base year will represent the year prior to any stage of the Plan being implemented. For example, if Stage 2 of the Plan occurs in 2010, the base year would be 2009. If in 2011, Stage 3 of the Plan is implemented, the base year would still remain 2009. To estimate outdoor water use for this base year, the District will use the minimum month method. This method will use the lowest month for the base year and multiply that by 12 months. This will approximate indoor use. The actual water use above the minimum month will represent outdoor use. The calculated outdoor use for the base year will represent the base demand allocation for the purposes of imposing any financial penalties.

Because outdoor water use represents approximately 50 percent of the total non-agricultural water demand in the District, any target percent reduction in water use would represent double of what would be needed from outdoor water use. For example, if Stage 4 of the Plan calls for a 40 percent reduction in overall non-agricultural water use, then outdoor water use would have to be reduced by 80 percent. Therefore, if the domestic or commercial customer's demand for outdoor water use is greater than 20 percent of its base outdoor use, a penalty would be applied for each unit above the base.

For Stages 3 and 4 of the Plan, any penalty will represent any MWD penalties imposed (the total MWD penalty would be allocated to customers based on a pro-rata share), plus a 25 percent District increase in the customer's water bill for the base year. If MWD did not assess a penalty for a given stage of the District's Plan, the financial penalty imposed would just be a 25 percent District increase in the customer's water bill. For Stage 5, the District will impose a 50 percent increase in the customer's water bill, in addition to any MWD penalty. All penalties collected would be used for additional administration of the Plan, to pay MWD for penalties assessed to the District, to implement additional demand management measures during an extended water shortage as well as to replenish the Drought Cash Reserve for the District (see Section 5).

## **4.2 Commercial Customers with Separate Irrigation Meters Present**

For those commercial/institutional customers with a separate irrigation meter, the base demand allocation will be established at 100-percent of the Evapotranspiration (ET) rate using historical data from CIMIS Station Number 62. Different stages of the District's Plan would call for base water demand to be reduced and in some cases discontinued. Any water use above the specified reduction in base water allocations will be subject to a financial penalty.

Financial penalties for Commercial Customers with separate irrigation meters will be calculated in the same manner as calculated for domestic and commercial customers without separate landscape meters. For Stages 3 and 4 of the Plan, any penalty will represent any MWD penalties imposed (the total MWD penalty would be allocated to customers based on a pro-rata share), plus a 25 percent District increase in the customer's water bill for the base year. If MWD did not assess a penalty for a given stage of the District's Plan, the financial penalty imposed would just be a 25 percent District increase in the customer's water bill. For Stage 5, the District will impose a 50 percent increase in the customer's water a bill, in addition to any MWD penalty. All penalties collected would be used for additional administration of the Plan, to pay MWD for penalties assessed to the District, to implement additional demand management measures during an extended water shortage as well as to replenish the Drought Cash Reserve for the District (see Section 5).

## **4.3 Agricultural Customers**

For permanent and non-permanent crops, each crop will be assigned a base water demand using reference Evapotranspiration (ET) and the generally accepted crop-coefficient for that crop. In no case will base water demand exceed 80-percent of the historical Evapotranspiration (ET) rate measured at CIMIS Station Number 62. Different stages of the District's Plan would call for the prescribed base water demand to be reduced and in some cases discontinued completely. Any water use above the specified reduction will be subject to a financial penalty.

Financial penalties for Agricultural Customers will be calculated in a similar manner as prescribed for domestic and commercial customers with or without separate landscape meters. However, all Agricultural Customer penalties will represent the MWD penalties imposed under the MWD Interim Agricultural Water Program and levied solely as a result of agricultural activities during any of the District's Plan stages (the total MWD penalty would be allocated to agricultural customers based on a pro-rata share), plus a 25 percent District increase in the customer's water bill for the base year for Stages 3 and 4 of the Plan. If MWD did not assess an IAWP penalty for a given stage of the District's Plan, the financial penalty imposed would just be a 25 percent District increase in the customer's water bill for Stages 3 and 4. For Stage 5, the District will impose a 50 percent increase in the customer's water a bill, in addition to any MWD penalty. All penalties collected would be used for additional administration of the Plan, to pay MWD for penalties assessed to the District, implement additional demand management measures during an extended water shortage as well as to replenish the Drought Cash Reserve for the District (see Section 5).

#### **4.4 Variances**

The District may, in writing, grant temporary variance for any penalties or restrictions imposed by the Plan. Variances may be granted due to health and safety reasons or because of special circumstances in how the base water demand was established and the actual use during a restrictive stage.

Any variance must be requested in writing within 15 days of the Plan's staged implementation. The following information must be provided:

1. Name, contact phone number , service address and customer account number of petitioner;
2. Purpose of water use (e.g., domestic, commercial, agriculture);
3. Specific provision (s) of the Plan from which the petitioner is requesting relief;
4. Detailed statement as to how the provision of the Plan adversely affects the petitioner or what damage or harm will occur;
5. Description of the relief requested;
6. Period of time for which the variance is sought; and
7. Any alternative water use restrictions (for example indoor use) that the petitioner is taking or proposes to take to meet the intent of the Plan.

## **Section 5 Revenue and Rate Impacts**

Currently the District has a Cash Reserve Policy to deal with risk. One element of that reserve policy is a Drought Reserve. The Drought Reserve takes into account changes in the District's water supply operational costs and the reduced revenues from lower water sales. The target Drought Reserve level is \$5.1 million. This reserve will be used to minimize any potential rate impacts caused by the implementation of the District's Plan.

Any penalties collected through non-compliance of the Plan would be partially used to replenish this Drought Reserve, implement additional demand management measures during an extended water shortage, contribute to increased administration costs, and pay for any MWD penalties imposed to the District.

## Section 6

### District's Emergency Actions

The Water Code 10632 requires 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.

The District operates in an area where the probability of an earthquake is high. Depending on the severity, an earthquake may damage the water system. The District's Emergency Response Plan provides a framework for an organized response to an earthquake emergency. The primary objectives of the plan are to maintain the functionality of the water distribution system, assess the system and if necessary make rapid repair to any damage, and prevent any further damage. The District's response to an earthquake will be directed by the General Manager.

The District has Response Phases in the event of an Earthquake:

Phase I - Inspection: A rapid inspection to determine injuries and any damage which might affect the distribution system.

Phase II - Report Back: Emergency communications flow: additional inspection procedures.

Phase III - Repair: Coordination of maintenance forces.

Phase IV - Management Procedures: Key Management responsibilities for the emergency.

Phase V - Operating/Maintenance/Engineering: Outlines procedures for division staff.

Prior to Phase I inspections, system operators and inspectors report to the Emergency Operating Center to receive assigned inspection routes. The Emergency Operating Center creates a communications hub for the District to efficiently manage their available resources. For example, personnel inspecting Vail Dam, wastewater treatment facilities, and wells receive their assignments from and report their findings to the Emergency Operating Center. The Emergency Response Plan contains ten areas that are inspected with driving directions for specific inspections routes. If inspections reveal damage to any of the areas the necessary repairs are made. Communications are ongoing at all phases of the response to an earthquake. The District has a primary and secondary radio systems to insure communications will be available during an emergency.

The Emergency Response Plan also includes an analysis of the potential of an electrical power outage. The District depends on electricity to boost water to higher elevations via pumping stations, although some wells use natural gas as their energy source. In an emergency situation involving a power outage the District will utilize emergency generators to provide customers with a reliable source of water.

## Section 7

### Definitions for Plan

1. Acre-foot: a uniform volume of water that will cover one acre (43,560 square feet) to a depth of 1 foot (approximately 325,851 gallons).
2. Aesthetic water use: water use for ornamental or decorative purposes including, but not limited to, fountains, reflecting pools and water gardens.
3. Agricultural water use: water used for the irrigation and maintenance of both permanent and non-permanent agricultural crops including, but not limited to, avocado, citrus, winegrapes, corn and other products for human consumption or the generation of feed for livestock.
4. Beneficial water use: the efficient use of water resources for agriculture, commercial, domestic, habitat, industrial or recreation purposes.
5. Billing Unit: the unit amount of water used to apply water rates for the purposes of calculating commodity charges for the customer water usage; equal to 100 cubic feet or 748 gallons of water.
6. California-Friendly landscaping: defined by Metropolitan Water District as a landscape that features low-water using plants, state-of-the-art irrigation and controllers, sustainable landscaping techniques, and maintenance plan. Specific guidelines can be found at [www.bewaterwise.com](http://www.bewaterwise.com).
7. CIMIS: California Irrigation Management Information System; additional information at [www.cimis.water.ca.gov](http://www.cimis.water.ca.gov).
8. Commercial/Institutional water use: water used in businesses producing goods, providing services or in multiple family dwellings (apartments and condominiums), home owners' associations (HOA) property owners' associations (POA), schools, hospitals and correctional facilities.
9. Conservation: those practices, techniques, and technologies that reduce the consumption of water, reduce the loss or waste of water, improve the efficiency in the use of water or increase the recycling and reuse of water so that a supply is conserved and made available for future or alternative uses.
10. Demand management: water-efficiency measures, practices or incentives implemented by the District to reduce or change the pattern of customer water demand.
11. District: Rancho California Water District.
12. Domestic (household) water use: water used for outdoor landscape irrigation or recreation and indoor personal needs such as drinking, bathing, heating, cooking, sanitation, or for general cleaning.

13. Drought: an extended period of below-normal precipitation that can result in water-supply shortages, increased water demand, or both.
14. EMWD: Eastern Municipal Water District.
15. Evapotranspiration (ET): water lost from the surface of soils and plants through evaporation and transpiration, respectively.
16. Evapotranspiration (ET) rate: the quantity of water transpired from plant tissues and evaporated from the surface of surrounding soil, expressed as a depth of water in inches or feet; where the ET rate is affected by temperature, solar radiation, humidity, wind and soil moisture.
17. Hardscape: asphalt, concrete, masonry or wood surfaced areas including streets, parking lots, sidewalks, driveways patios and decks.
18. Irrigation: the application of water to soil to meet the water needs of crops, turf, shrubbery, gardens, or wildlife food and habitat not satisfied by rainfall.
19. Landscape irrigation use: water used for the irrigation and maintenance of landscaped areas, whether publicly or privately owned, including residential and commercial lawns, gardens, golf courses, parks and rights-of-way and medians.
20. MWD: Metropolitan Water District of Southern California.
21. Non-permanent crop: agricultural commodity produced from plants that are removed following harvest and must be replanted to reproduce.
22. Non-essential water use: water uses that are not essential nor required for the protection of public, health, safety, and welfare, including:
  - a. Irrigation of landscape areas, including parks, athletic fields, and golf courses, except otherwise provided under this plan;
  - b. Use of water to wash any motor vehicle, motorbike, boat, trailer, airplane or other equipment or vehicle;
  - c. Use of water to wash down any sidewalks, walkways, driveways, parking lots, tennis courts, or other hard-surfaced areas, unless required by the California Department of Health Services for health and sanitary reasons;
  - d. Use of water to wash down buildings or structures for purposes other than immediate fire protection or hazardous substance remediation;
  - e. Flushing gutters or permitting water to run or accumulate in any gutter, swale or street;
  - f. Use of water to fill, refill, or add to any indoor or outdoor swimming pools or Jacuzzi-type pools used solely for recreational purposes;

- g. Use of water in a fountain or pond for aesthetic or scenic purposes except where necessary to support aquatic life; and
  - h. Use of water from hydrants for construction purposes or any other purposes other than fire fighting.
23. Non-potable water: water not suitable for drinking; which may be recycled water or imported raw water, or a blend of the two.
24. Permanent crop: agricultural commodity produced from plants that remain following harvest.
25. Potable water: water suitable for drinking.
26. Raw water: untreated imported water.
27. Recycled water: municipal wastewater that has been treated to meet all applicable federal, state and local standards for use in approved applications, including but not limited to agricultural and landscape irrigation. Recycled water is not for human consumption.
28. Run-off: Irrigation water (agriculture and landscape) which is not absorbed by the soil to which it is applied and flows from the planted area.
29. Water waste: the use of water that results in water flowing into any gutter, street, sidewalk, swale, or storm drain in a steady stream of flow during the course of a period of five or more continuous minutes or the use of water that results in water pooling in a public street, sidewalk, right-of-way or easement, or water applied to a landscape or agricultural crop in excess of the commonly accepted ET adjustment factor or crop-coefficient.
30. WMWD: Western Municipal Water District of Riverside County.

# **APPENDIX D**

## **2005 CUWCC REPORT**

Reported as of 12/1/06

**Water Supply & Reuse**

Reporting Unit:

**Rancho California Water District**

Year:

**2005****Water Supply Source Information**

<b>Supply Source Name</b>	<b>Quantity (AF) Supplied</b>	<b>Supply Type</b>
MWD Treated	29921	Imported
RCWD	36459	Groundwater
SRWRF	3698	Recycled
TVRWRF	1322	Recycled
Vail Lake	71	Local Watershed

**Total AF: 71471**

**Accounts & Water Use**

Reporting Unit Name: **Rancho California Water District** Submitted to **CUWCC** Year: **2005**  
 11/30/2006

**A. Service Area Population Information:**

1. Total service area population 109123

**B. Number of Accounts and Water Deliveries (AF)**

Type	Metered		Unmetered	
	No. of Accounts	Water Deliveries (AF)	No. of Accounts	Water Deliveries (AF)
1. Single-Family	33688	25442	0	0
2. Multi-Family	182	1750	0	0
3. Commercial	2324	4097	0	0
4. Industrial	0	0	0	0
5. Institutional	0	0	0	0
6. Dedicated Irrigation	1026	2468	0	0
7. Recycled Water	242	5020	0	0
8. Other	2872	31729	0	0
9. Unaccounted	NA	0	NA	0
<b>Total</b>	<b>40334</b>	<b>70506</b>	<b>0</b>	<b>0</b>

## BMP 01: Water Survey Programs for Single-Family and Multi-Family Residential Customers

Reporting Unit: **Rancho California Water District**      BMP Form Status: **100% Complete**      Year: **2005**

### A. Implementation

- |  |            |
|--|------------|
| 1. Based on your signed MOU date, 03/09/2005, your Agency STRATEGY DUE DATE is:  | 03/09/2007 |
| 2. Has your agency developed and implemented a targeting/marketing strategy for SINGLE-FAMILY residential water use surveys? | yes        |
| a. If YES, when was it implemented?  | 07/28/2004 |
| 3. Has your agency developed and implemented a targeting/marketing strategy for MULTI-FAMILY residential water use surveys?  | yes        |
| a. If YES, when was it implemented?  | 07/28/2004 |

### B. Water Survey Data

Survey Counts:	Single Family Accounts	Multi-Family Units
1. Number of surveys offered:	120	5
2. Number of surveys completed:	74	1

### Indoor Survey:

- |   |    |    |
|---|----|----|
| 3. Check for leaks, including toilets, faucets and meter checks   | no | no |
| 4. Check showerhead flow rates, aerator flow rates, and offer to replace or recommend replacement, if necessary   | no | no |
| 5. Check toilet flow rates and offer to install or recommend installation of displacement device or direct customer to ULFT replacement program, as necessary; replace leaking toilet flapper, as necessary | no | no |

### Outdoor Survey:

- |  |     |                 |
|--|-----|-----------------|
| 6. Check irrigation system and timers  | yes | yes             |
| 7. Review or develop customer irrigation schedule  | yes | yes             |
| 8. Measure landscaped area (Recommended but not required for surveys)  | no  | no              |
| 9. Measure total irrigable area (Recommended but not required for surveys)   | no  | no              |
| 10. Which measurement method is typically used (Recommended but not required for surveys)                                |     | None            |
| 11. Were customers provided with information packets that included evaluation results and water savings recommendations? | yes | yes             |
| 12. Have the number of surveys offered and completed, survey results, and survey costs been tracked?                     | yes | yes             |
| a. If yes, in what form are surveys tracked?   |     | manual activity |
| b. Describe how your agency tracks this information.   |     |                 |

Contractor provides paper copies of completed evaluations. Indication of

completed evaluation is entered into customer billing system.

**C. "At Least As Effective As"**

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? No

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

**D. Comments**

RCWD's Targeted Conservation Program focuses on the 500 highest water-use residential customers. Installed WBIC counted as evaluations.

**BMP 02: Residential Plumbing Retrofit**

Reporting Unit:  
**Rancho California Water District**

BMP Form Status:  
**100% Complete**

Year:  
**2005**

**A. Implementation**

- 1. Is there an enforceable ordinance in effect in your service area requiring replacement of high-flow showerheads and other water use fixtures with their low-flow counterparts? no
  - a. If YES, list local jurisdictions in your service area and code or ordinance in each:
  
- 2. Has your agency satisfied the 75% saturation requirement for single-family housing units? no
- 3. Estimated percent of single-family households with low-flow showerheads: %
- 4. Has your agency satisfied the 75% saturation requirement for multi-family housing units? no
- 5. Estimated percent of multi-family households with low-flow showerheads: %
- 6. If YES to 2 OR 4 above, please describe how saturation was determined, including the dates and results of any survey research.

**B. Low-Flow Device Distribution Information**

- 1. Has your agency developed a targeting/ marketing strategy for distributing low-flow devices? yes
  - a. If YES, when did your agency begin implementing this strategy? 04/01/2005
  - b. Describe your targeting/ marketing strategy.

One-time, trifold bill insert included in all customers bills. Follow up bill messages periodically to remind customers. Brochure listed program eligibility guidelines including single family home/condo owner or property manager of multifamily dwelling built prior to 1992.

<b>Low-Flow Devices Distributed/ Installed</b>	<b>SF Accounts</b>	<b>MF Units</b>
--	--------------------	-----------------

- |   |     |    |
|---|-----|----|
| 2. Number of low-flow showerheads distributed:        | 315 | 20 |
| 3. Number of toilet-displacement devices distributed: | 0   | 0  |
| 4. Number of toilet flappers distributed:             | 0   | 0  |
| 5. Number of faucet aerators distributed:             | 185 | 10 |
- 6. Does your agency track the distribution and cost of low-flow devices? yes
    - a. If YES, in what format are low-flow devices tracked? Spreadsheet
    - b. If yes, describe your tracking and distribution system :

MS Excel Spreadsheet

**C. "At Least As Effective As"**

- 1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? No

D6

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

**D. Comments**

**BMP 03: System Water Audits, Leak Detection and Repair**

Reporting Unit: **Rancho California Water District**      BMP Form Status: **100% Complete**      Year: **2005**

**A. Implementation**

- 1. Does your agency own or operate a water distribution system? yes
- 2. Has your agency completed a pre-screening system audit for this reporting year? no
- 3. If YES, enter the values (AF/Year) used to calculate verifiable use as a percent of total production:
  - a. Determine metered sales (AF) 66328.55
  - b. Determine other system verifiable uses (AF) 0
  - c. Determine total supply into the system (AF) 66451
  - d. Using the numbers above, if (Metered Sales + Other Verifiable Uses) / Total Supply is < 0.9 then a full-scale system audit is required. 1.00
- 4. Does your agency keep necessary data on file to verify the values entered in question 3? yes
- 5. Did your agency complete a full-scale audit during this report year? no
- 6. Does your agency maintain in-house records of audit results or completed AWWA M36 audit worksheets for the completed audit which could be forwarded to CUWCC? no
- 7. Does your agency operate a system leak detection program? no
  - a. If yes, describe the leak detection program:

**B. Survey Data**

- 1. Total number of miles of distribution system line. 842.05
- 2. Number of miles of distribution system line surveyed. 0

**C. "At Least As Effective As"**

- 1. Is your agency implementing an "at least as effective as" variant of this BMP? No
  - a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

**D. Comments**

FY 2006 supply into the system includes treated water purchased from MWD; locally produced groundwater and vail water.

**Voluntary Questions (Not used to calculate compliance)**

---

**E. Volumes**

- |   | Estimated | Verified |
|---|-----------|----------|
| 1. Volume of raw water supplied to the system:    |           |          |
| 2. Volume treated water supplied into the system: |           |          |
| 3. Volume of water exported from the system:      |           |          |
| 4. Volume of billed authorized metered            |           |          |

consumption:

5. Volume of billed authorized unmetered consumption:

6. Volume of unbilled authorized metered consumption:

7. Volume of unbilled authorized unmetered consumption:

## F. Infrastructure and Hydraulics

1. System input (source or master meter) volumes metered at the entry to the:

2. How frequently are they tested and calibrated?

3. Length of mains:

4. What % of distribution mains are rigid pipes (metal, ac, concrete)?

5. Number of service connections:

6. What % of service connections are rigid pipes (metal)?

7. Are residential properties fully metered?

8. Are non-residential properties fully metered?

9. Provide an estimate of customer meter under-registration:

10. Average length of customer service line from the main to the point of the meter:

11. Average system pressure:

12. Range of system pressures:

From to

13. What percentage of the system is fed from gravity feed?

14. What percentage of the system is fed by pumping and re-pumping?

## G. Maintenance Questions

1. Who is responsible for providing, testing, repairing and replacing customer meters?

2. Does your agency test, repair and replace your meters on a regular timed schedule?

a. If yes, does your agency test by meter size or customer category?:

b. If yes to meter size, please provide the frequency of testing by meter size:

Less than or equal to 1"

1.5" to 2"

3" and Larger

c. If yes to customer category, provide the frequency of testing by customer category:

SF residential

MF residential

Commercial

Industrial & Institutional

3. Who is responsible for repairs to the customer lateral or customer service line?

4. Who is responsible for service line repairs downstream of the customer meter?

D9

5. Does your agency proactively search for leaks using leak survey techniques or does your utility reactively repair leaks which are called in, or both?

6. What is the utility budget breakdown for:

Leak Detection	\$
Leak Repair	\$
Auditing and Water Loss Evaluation	\$
Meter Testing	\$

**H. Comments**

### BMP 04: Metering with Commodity Rates for all New Connections and Retrofit of Existing

Reporting Unit: **Rancho California Water District**      BMP Form Status: **100% Complete**      Year: **2005**

#### A. Implementation

1. Please fill out the following matrix:

Types of Billed Accounts	% Accounts Metered	% Accounts Measured (Not Metered)	% Accounts Volumetric Billing
Treated Water SF Residential Accounts	100		100
Treated Water MF Residential Accounts	100		100
Treated Water Commercial Accounts	100		100
Treated Water Industrial Accounts	100		100
Treated Water Institutional Accounts	100		100
Raw Water Residential Deliveries	0	0	0
Raw Water Non-Residential Deliveries	0	0	0

2. If your agency does not meter 100% of all treated water accounts:

- a. Does your agency have a plan or program for retrofitting existing unmetered treated water connections?
- b. By what date would 100% of all treated water accounts be metered?
- c. Number of previously unmetered accounts fitted with meters during report year:

3. If your agency does bill 100% of all treated water accounts by volume of use:

- a. By what date (Year must be four digit mm/dd/yyyy) will all customers with meters be billed by volume of use?

4. If your agency does not meter or measure 100% of all raw water delivery fields (as listed in question 1f & 1g), does your agency intend to develop a program for measuring all raw water deliveries? No

5. If your agency does not volumetrically bill 100% of all raw water delivery, does your agency intend to develop a program for billing all raw water deliveries by volume of use? No

6. Does your agency meter by volume of use all municipal or governmental accounts?: Yes

- a. If no, which types of accounts are not included:  
D11

7. Does your agency bill by volume of use all municipal or governmental accounts? Yes

a. If no, which types of accounts are not included:

### B. Feasibility Study

1. 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? no

a. If YES, when was the feasibility study conducted? (mm/dd/yy)

b. Describe the feasibility study:

2. Number of CII accounts with mixed-use meters: 0

3. Number of CII accounts with mixed-use meters retrofitted with dedicated irrigation meters during reporting period 0

### D. "At Least As Effective As"

1. Is your agency implementing an "at least as effective as" variant of this BMP? No

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

### E. Comments

Report completed by Jason Martin and Sheri Todd.

## BMP 05: Large Landscape Conservation Programs and Incentives

Reporting Unit:  
**Rancho California**  
**Water District**

BMP Form Status:  
**100% Complete**

Year:  
**2005**

### A. Water Use Budgets

- |  |      |
|--|------|
| 1. Number of Dedicated Irrigation Meter Accounts:  | 1026 |
| 2. Number of Dedicated Irrigation Meter Accounts with Water Budgets:                         | 1026 |
| 3. Budgeted Use for Irrigation Meter Accounts with Water Budgets (AF) during reporting year: | 5203 |
| 4. Actual Use for Irrigation Meter Accounts with Water Budgets (AF) during reporting year:   | 5358 |
| 5. Does your agency provide water use notices to accounts with budgets each billing cycle?   | yes  |

### B. Landscape Surveys

- |  |            |
|--|------------|
| 1. Has your agency developed a marketing / targeting strategy for landscape surveys?   | yes        |
| a. If YES, when did your agency begin implementing this strategy?  | 07/28/2004 |
| b. Description of marketing / targeting strategy:  |            |
| <p>Rancho California Water District began implementing its Targeted Conservation Program (TCP) in July 2004. The program, provides water-use efficiency evaluations for the District's high water-use customers. If a customer's annual water-use is 200-percent higher than the average consumption in their customer class, they are "targeted" for program participation. 2,500 urban water users were initially identified for the program. The goal of the Targeted Conservation Program is to reduce the demand for more costly Tier 2 imported water.</p> |            |
| 2. Number of Surveys Offered during reporting year.  | 750        |
| 3. Number of Surveys Completed during reporting year.  | 380        |
| 4. Indicate which of the following Landscape Elements are part of your survey:   |            |
| a. Irrigation System Check   | yes        |
| b. Distribution Uniformity Analysis  | no         |
| c. Review / Develop Irrigation Schedules   | yes        |
| d. Measure Landscape Area  | yes        |
| e. Measure Total Irrigable Area  | yes        |
| f. Provide Customer Report / Information   | yes        |
| 5. Do you track survey offers and results?   | yes        |
| 6. Does your agency provide follow-up surveys for previously completed surveys?  | yes        |
| a. If YES, describe below:   |            |

### C. Other BMP 5 Actions

- |   |     |
|---|-----|
| 1. An agency can provide mixed-use accounts with ETo-based landscape budgets in lieu of a large landscape survey program. | yes |
| Does your agency provide mixed-use accounts with  |     |

D13

- landscape budgets?
- 2. Number of CII mixed-use accounts with landscape budgets. 0
  - Number of CII accounts with mixed-use meters retrofitted with dedicated irrigation meters during reporting period. (From BMP 4 report) 0
  - Total number of change-outs from mixed-use to dedicated irrigation meters since Base Year.
- 3. Do you offer landscape irrigation training? yes
- 4. Does your agency offer financial incentives to improve landscape water use efficiency? yes

Type of Financial Incentive:	Budget (Dollars/Year)	Number Awarded to Customers	Total Amount Awarded
a. Rebates	0	0	0
b. Loans	0	0	0
c. Grants	0	0	0

- 5. Do you provide landscape water use efficiency information to new customers and customers changing services? No
  - a. If YES, describe below:
- 6. Do you have irrigated landscaping at your facilities? yes
  - a. If yes, is it water-efficient? yes
  - b. If yes, does it have dedicated irrigation metering? yes
- 7. Do you provide customer notices at the start of the irrigation season? no
- 8. Do you provide customer notices at the end of the irrigation season? no

**D. "At Least As Effective As"**

- 1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? No
  - a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

**E. Comments**

## BMP 06: High-Efficiency Washing Machine Rebate Programs

Reporting Unit: **Rancho California Water District**      BMP Form Status: **100% Complete**      Year: **2005**

### A. Coverage Goal

	Single Family	Multi-Family
1. Number of <b>residential</b> dwelling units in the agency service area.	27,518	6,336
2. Coverage Goal = Total Dwelling Units x 0.048	= 1,625 Points	

### B. Implementation

1. Does your agency offer rebates for **residential** high-efficiency washers? yes

HEW Water Factor	Number of Financial Incentives Issued	Total Value of Financial Incentives			TOTAL	POINTS AWARDED
		Retail Water Agency	Wholesaler/ Grants (if applicable)	Energy Utility (if applicable)		
2. Greater than 8.5 but not exceeding 9.5 (1 point)	26	\$ 0	\$ 0	\$ 0	\$ 0	0
3. Greater than 6.0 but not exceeding 8.5 (2 points)	77	\$ 0	\$ 0	\$ 0	\$ 0	0
4. Less than or equal to 6.0 (3 points)	230	\$ 0	\$ 0	\$ 0	\$ 0	0
<b>TOTALS:</b>	<b>333</b>	<b>\$ 0</b>	<b>\$ 0</b>	<b>\$ 0</b>	<b>\$ 0</b>	<b>0</b>

### C. Past Credit Points

**For HEW incentives issued before July 1, 2004, select ONE of the following TWO options:**

- Method One: Points based on HEW Water Factor
  - Method Two: Agency earns 1 point for each HEW.
- NOTE: Agency shall not receive credit for any HEW incentives where the agency did not provide a financial incentive of \$25 or more.

#### Method One: Points based on HEW Water Factor

HEW Water Factor	Number of Financial Incentives Issued	Total Value of Financial Incentives			TOTAL	POINTS AWARDED
		Retail Water Agency	Wholesaler/ Grants (if applicable)	Energy Utility (if applicable)		
1. Greater than 8.5 but not exceeding 9.5 (1 point each)	7	\$ 0	\$ 0	\$ 0	\$ 0	0
2. Greater than 6.0 but not exceeding 8.5	150	\$ 0	\$ 0	\$ 0	\$ 0	0

(2 points each)

**3. Less than or equal to 6.0**

(3 points each)

171	\$ 0	\$ 0	\$ 0	\$ 0	0
-----	------	------	------	------	---

**Method Two: Agency earns 1 point for each HEW**

	Number of Financial Incentives Issued	Total Value of Water Agency Financial Incentives				POINTS AWARDED
<b>4. Total HEWs installed</b>						

<b>PAST CREDIT TOTALS:</b>	<b>328</b>	<b>\$ 0</b>	<b>\$ 0</b>	<b>\$ 0</b>	<b>\$ 0</b>	<b>0</b>
----------------------------	------------	-------------	-------------	-------------	-------------	----------

**D. Rebate Program Expenditures**

1. Average or Estimated Administration and Overhead \$ 8,000

2. Is the financial incentive offered per HEW at least equal to the marginal benefits of the water savings per HEW?

**E. "At Least As Effective As"**

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? no

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

**F. Comments**

No comments

**BMP 07: Public Information Programs**

Reporting Unit:

**Rancho California Water District**

BMP Form Status:  
**100% Complete**

Year:  
**2005**

**A. Implementation**

1. How is your public information program implemented?

Wholesaler and retailer both materially participate in program

Which wholesaler(s)?

Western Municipal Water District; Eastern Municipal Water District; and the Metropolitan Water District of Southern California

2. Describe the program and how it's organized:

Rancho California Water District's public information program consists of community and media outreach. The program was managed under the direction of the Director of Planning. The various public information outreach efforts focus on informing and educating the District's stakeholders on various topics relating to water and the organization itself. Included in these topics are: water conservation, water reliability, water quality and infrastructure planning. The District supports the local, regional and statewide community through its public information efforts. COMMUNITY Quarterly customer newsletter: includes annual water quality report, rate increase information and seasonal information. Bottled water program: reaching 49 organizations, including City of Temecula, American Red Cross and Susan G. Komen Race for the Cure. Community Water Festival: co-sponsored with other water agencies to educate the community on various topics relating to water. Landscape seminar: held in demonstration garden, open to the public. Three seminars held. City of Temecula 4th of July Parade: involvement included employee participation. MEDIA Press releases: used as a medium to relay messages about the District.

3. Indicate which and how many of the following activities are included in your public information program:

Public Information Program Activity in Retail Service Area	Yes/No	Number of Events
a. Paid Advertising	yes	1
b. Public Service Announcement	no	
c. Bill Inserts / Newsletters / Brochures	yes	12
d. Bill showing water usage in comparison to previous year's usage	yes	
e. Demonstration Gardens	yes	4
f. Special Events, Media Events	yes	5
g. Speaker's Bureau	no	
h. Program to coordinate with other government agencies, industry and public interest groups and media	yes	

**B. Conservation Information Program Expenditures**

1. Annual Expenditures (Excluding Staffing) 58491.36

**C. "At Least As Effective As"**

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? No

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

**D. Comments**

Report completed by Liselle DeGrave.

D17



**BMP 08: School Education Programs**

Reporting Unit:

**Rancho California Water District**

BMP Form Status:

**100% Complete**

Year:

**2005**

**A. Implementation**

1. How is your public information program implemented?

Wholesaler and retailer both participate in program

Which wholesaler(s)?

Western Municipal Water District and Eastern Municipal Water District

2. Please provide information on your region-wide school programs (by grade level):

Grade	Are grade-appropriate materials distributed?	No. of class presentations	No. of students reached	No. of teachers' workshops
Grades K-3rd	yes	146	5900	0
Grades 4th-6th	yes	33	1000	0
Grades 7th-8th	yes	0	0	0
High School	yes	0	20	0

4. Did your Agency's materials meet state education framework requirements? yes

5. When did your Agency begin implementing this program? 01/01/1984

**B. School Education Program Expenditures**

1. Annual Expenditures (Excluding Staffing) 11057.58

**C. "At Least As Effective As"**

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? No

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

**D. Comments**

Report completed by Liselle DeGrave.

### BMP 09: Conservation Programs for CII Accounts

Reporting Unit:  
**Rancho California  
 Water District**

BMP Form Status:  
**100% Complete**

Year:  
**2005**

#### A. Implementation

- 1. Has your agency identified and ranked COMMERCIAL customers according to use? yes
- 2. Has your agency identified and ranked INDUSTRIAL customers according to use? yes
- 3. Has your agency identified and ranked INSTITUTIONAL customers according to use? yes

#### Option A: CII Water Use Survey and Customer Incentives Program

4. Is your agency operating a CII water use survey and customer incentives program for the purpose of complying with BMP 9 under this option? If so, please describe activity during reporting period: no

CII Surveys	Commercial Accounts	Industrial Accounts	Institutional Accounts
a. Number of New Surveys Offered	0	0	0
b. Number of New Surveys Completed	0	0	0
c. Number of Site Follow-ups of Previous Surveys (within 1 yr)	0	0	0
d. Number of Phone Follow-ups of Previous Surveys (within 1 yr)	0	0	0
CII Survey Components	Commercial Accounts	Industrial Accounts	Institutional Accounts
e. Site Visit	yes	yes	yes
f. Evaluation of all water-using apparatus and processes	no	no	no
g. Customer report identifying recommended efficiency measures, paybacks and agency incentives	no	no	no
Agency CII Customer Incentives	Budget (\$/Year)	# Awarded to Customers	Total \$ Amount Awarded
h. Rebates	0	0	0
i. Loans	0	0	0
j. Grants	0	0	0
k. Others	0	0	0

#### Option B: CII Conservation Program Targets

D20

5. Does your agency track CII program interventions and water savings for the purpose of complying with BMP 9 under this option? yes

6. Does your agency document and maintain records on how savings were realized and the method of calculation for estimated savings? yes

7. **System Calculated** annual savings (AF/yr):

CII Programs	# Device Installations
a. Ultra Low Flush Toilets	4
b. Dual Flush Toilets	0
c. High Efficiency Toilets	0
d. High Efficiency Urinals	0
e. Non-Water Urinals	0
f. Commercial Clothes Washers (coin-op only; not industrial)	2
g. Cooling Tower Controllers	0
h. Food Steamers	0
i. Ice Machines	0
j. Pre-Rinse Spray Valves	0
k. Steam Sterilizer Retrofits	0
l. X-ray Film Processors	0

8. **Estimated** annual savings (AF/yr) from agency programs not including the devices listed in Option B. 7., above:

CII Programs	Annual Savings (AF/yr)
a. Site-verified actions taken by agency:	0
b. Non-site-verified actions taken by agency:	0

**B. Conservation Program Expenditures for CII Accounts**

	This Year	Next Year
1. Budgeted Expenditures	0	0
2. Actual Expenditures	0	

**C. "At Least As Effective As"**

1. Is your agency implementing an "at least as effective as" variant of this BMP? No

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

**D. Comments**

RCWD, as a water retailer in the Metropolitan Water District service area, participates in the Save Water-Save A Buck program for CII water customers.



## BMP 11: Conservation Pricing

Reporting Unit:  
**Rancho California Water District**

BMP Form  
 Status:  
**100% Complete**

Year:  
**2005**

### A. Implementation

#### Water Service Rate Structure Data by Customer Class

**Number of schedules:**

For the following accounts, how many rate schedules does agency offer/use?

- 1. **Single-family residential** 2
- 2. **Multi-family residential** 2
- 3. **Commercial** 2
- 4. **Industrial** 0
- 5. **Institutional/ government** 0
- 6. **Dedicated irrigation** 2  
(potable water)
- 7. **Other** 0
- 8. **Recycled-reclaimed water** 1
- 9. **Raw water** 0  
(urban use)
- 10. **Wholesale** (urban use) 0

**Use of classification:**

This agency:

- Uses classification in its billing system
- Uses classification in its billing system
- Uses classification in its billing system
- Includes customers in another class
- Includes customers in another class
- Uses classification in its billing system
- Does not serve this type of customer
- Uses classification in its billing system
- Does not serve this type of customer
- Does not serve this type of customer

**Sewer Service**

- 11. Does your agency provide sewer service to your water customers? yes
- 12. If yes, does sewer service use conservation rate structures? no
- 13. Has your agency made the required efforts (as prescribed in BMP 11) to have sewer services billed on conservation rates? no
- 14. What water agency activities have been undertaken during the reporting period to achieve waste water agency volumetric billing in your water agency service area? None

### B. "At Least As Effective As"

- 1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? No

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

### C. Comments

RCWD rate structure is actually more detailed than this report form allows. RCWD has two divisions with two rate tiers each. The tiers are adjusted for both meter and property size. A different tiered allotment is calculated for meter size and a lot size variance is available at four progressively larger categories of lot size.

D23

**BMP 11: Conservation Pricing**

Reporting Unit: **Rancho California Water District**      BMP Form Status: **100% Complete**      Year: **2005**

**1.A. Single-Family Residential Rate Schedule A**

a. Water Rate Structure	Increasing Block
b. Sewer Rate Structure	Non-volumetric Flat Rate
c. Total Revenue from only Volumetric Charges	6994909.49
d. Total Revenue from Non-Volumetric Charges (Includes fixed fees, surcharges, minimum usage charges, monthly service charges, meter charges etc.)	4073639.2
e. Total Revenue from this category	11068548.69

**1.A. Rate Schedule - Volumetric**

**Title:** Single Family Residential-Rancho Division

f. Billing Cycles/year	12
g. Service Charges/Cycle	12.1
h. Gallons/Bill Unit	748
i. Minimum Use/Cycle	0
j. Non-billed Units (included in monthly service charge)	0

	<b>\$/Bill Unit</b>	<b>Starting At (unit qty.)</b>
k. Tier 1	.61073	0
l. Tier 2	.79668	525
m. Tier 3		
n. Tier 4		
o. Tier 5		
p. Tier 6		

q. Approximate quantity of meters/accounts on this rate schedule	27988
r. Are elevation charges included?	no
s. Approximate total annual water usage (AF) from customers on this rate schedule	20864

**1.B. Single-Family Residential Rate Schedule B**

a. Water Rate Structure	Increasing Block
b. Sewer Rate Structure	Non-volumetric Flat Rate
c. Total Revenue from only Volumetric Charges	2456999.04
d. Total Revenue from Non-Volumetric Charges (Includes fixed fees, surcharges, minimum usage charges, monthly service charges, meter charges etc.)	1403977.05

e. Total Revenue from this category 3860976.09

**1.B. Rate Schedule - Volumetric**

**Title:** Single Family Residential-Santa Rosa Division

f. Billing Cycles/year		12
g. Service Charges/Cycle		18.71
h. Gallons/Bill Unit		748
i. Minimum Use/Cycle		0
j. Non-billed Units (included in monthly service charge)		0
	<b>\$/Bill Unit</b>	<b>Starting At (unit qty.)</b>
k. Tier 1	1.01674	0
l. Tier 2	1.20569	525
m. Tier 3		
n. Tier 4		
o. Tier 5		
p. Tier 6		
q. Approximate quantity of meters/accounts on this rate schedule		5700
r. Are elevation charges included?		no
s. Approximate total annual water usage (AF) from customers on this rate schedule		4578

**BMP 11: Conservation Pricing**

Reporting Unit: **Rancho California Water District**      BMP Form Status: **100% Complete**      Year: **2005**

**2.A. Multi-Family Residential Rate Schedule A**

a. Water Rate Structure	Increasing Block
b. Sewer Rate Structure	Non-volumetric Flat Rate
c. Total Revenue from only Volumetric Charges	774918.76
d. Total Revenue from Non-Volumetric Charges (Includes fixed fees, surcharges, minimum usage charges, monthly service charges, meter charges etc.)	319040.47
e. Total Revenue from this category	1093959.23

**2.A. Rate Schedule - Volumetric**

**Title:** Multi Family Residential - Rancho Division

f. Billing Cycles/year	12
g. Service Charges/Cycle	0
h. Gallons/Bill Unit	748
i. Minimum Use/Cycle	0
j. Non-billed Units (included in monthly service charge)	0

	<b>\$/Bill Unit</b>	<b>Starting At (unit qty.)</b>
k. Tier 1	.61073	1
l. Tier 2	.79668	525
m. Tier 3		
n. Tier 4		
o. Tier 5		
p. Tier 6		

q. Approximate quantity of meters/accounts on this rate schedule	176
r. Are elevation charges included?	no
s. Approximate total annual water usage (AF) from customers on this rate schedule	1592

**2.B. Multi-Family Residential Rate Schedule B**

a. Water Rate Structure	Increasing Block
b. Sewer Rate Structure	Non-volumetric Flat Rate
c. Total Revenue from only Volumetric Charges	232127.27
d. Total Revenue from Non-Volumetric Charges (Includes fixed fees, surcharges, minimum usage charges, monthly service charges, meter charges etc.)	144076.03

D26

e. Total Revenue from this category 376203.3

**2.B. Rate Schedule - Volumetric**

**Title:** Multi Family Residential - Santa Rosa Division

f. Billing Cycles/year		12
g. Service Charges/Cycle		0
h. Gallons/Bill Unit		748
i. Minimum Use/Cycle		0
j. Non-billed Units (included in monthly service charge)		0
	<b>\$/Bill Unit</b>	<b>Starting At (unit qty.)</b>
k. Tier 1	1.01674	0
l. Tier 2	1.20269	525
m. Tier 3		
n. Tier 4		
o. Tier 5		
p. Tier 6		
q. Approximate quantity of meters/accounts on this rate schedule		6
r. Are elevation charges included?		no
s. Approximate total annual water usage (AF) from customers on this rate schedule		158

**BMP 11: Conservation Pricing**

Reporting Unit: **Rancho California Water District**      BMP Form Status: **100% Complete**      Year: **2005**

**3.A. Commercial Rate Schedule A**

a. Water Rate Structure	Increasing Block
b. Sewer Rate Structure	Non-volumetric Flat Rate
c. Total Revenue from only Volumetric Charges	1813556.75
d. Total Revenue from Non-Volumetric Charges (Includes fixed fees, surcharges, minimum usage charges, monthly service charges, meter charges etc.)	746751.74
e. Total Revenue from this category	2560308.49

**3.A. Rate Schedule - Volumetric**

**Title:** CII - Rancho Division

f. Billing Cycles/year	12
g. Service Charges/Cycle	0
h. Gallons/Bill Unit	748
i. Minimum Use/Cycle	0
j. Non-billed Units (included in monthly service charge)	0

	<b>\$/Bill Unit</b>	<b>Starting At (unit qty.)</b>
k. Tier 1	.61073	0
l. Tier 2	.79668	525
m. Tier 3		
n. Tier 4		
o. Tier 5		
p. Tier 6		

q. Approximate quantity of meters/accounts on this rate schedule	1642
r. Are elevation charges included?	no
s. Approximate total annual water usage (AF) from customers on this rate schedule	3432

**3.B. Commercial Rate Schedule B**

a. Water Rate Structure	Increasing Block
b. Sewer Rate Structure	Non-volumetric Flat Rate
c. Total Revenue from only Volumetric Charges	543321.17
d. Total Revenue from Non-Volumetric Charges (Includes fixed fees, surcharges, minimum usage charges, monthly service charges, meter charges etc.)	337226.9

D28

e. Total Revenue from this category 880548.07

**3.B. Rate Schedule - Volumetric**

**Title:** CII - Santa Rosa Division

f. Billing Cycles/year 12  
 g. Service Charges/Cycle 0  
 h. Gallons/Bill Unit 748  
 i. Minimum Use/Cycle 0  
 j. Non-billed Units (included in monthly service charge) 0

	<b>\$/Bill Unit</b>	<b>Starting At (unit qty.)</b>
k. Tier 1	1.01674	0
l. Tier 2	1.20269	525
m. Tier 3		
n. Tier 4		
o. Tier 5		
p. Tier 6		

q. Approximate quantity of meters/accounts on this rate schedule 682

r. Are elevation charges included? no

s. Approximate total annual water usage (AF) from customers on this rate schedule 665

**BMP 11: Conservation Pricing**

Reporting Unit:

**Rancho California Water District**

BMP Form Status:

**100% Complete**

Year:

**2005****6.A. Irrigation Rate Schedule A**

a. Water Rate Structure	Increasing Block
b. Sewer Rate Structure	Service Not Provided
c. Total Revenue from only Volumetric Charges	1092477.46
d. Total Revenue from Non-Volumetric Charges (Includes fixed fees, surcharges, minimum usage charges, monthly service charges, meter charges etc.)	449839.49
e. Total Revenue from this category	1542316.95

**6.A. Rate Schedule - Volumetric****Title:** Domestic Landscape Irrigation - Rancho Division

f. Billing Cycles/year	12
g. Service Charges/Cycle	0
h. Gallons/Bill Unit	748
i. Minimum Use/Cycle	0
j. Non-billed Units (included in monthly service charge)	0

	<b>\$/Bill Unit</b>	<b>Starting At (unit qty.)</b>
k. Tier 1	.61073	0
l. Tier 2	.79668	525
m. Tier 3		
n. Tier 4		
o. Tier 5		
p. Tier 6		

q. Approximate quantity of meters/accounts on this rate schedule	599
r. Are elevation charges included?	no
s. Approximate total annual water usage (AF) from customers on this rate schedule	1298

**6.B. Irrigation Rate Schedule B**

a. Water Rate Structure	Increasing Block
b. Sewer Rate Structure	Service Not Provided
c. Total Revenue from only Volumetric Charges	327293.94
d. Total Revenue from Non-Volumetric Charges (Includes fixed fees, surcharges, minimum usage charges, monthly service charges, meter charges etc.)	203143.79

D30

e. Total Revenue from this category 530437.73

**6.B. Rate Schedule - Volumetric**

**Title:** Domestic Landscape Irrigation - Santa Rosa Division

f. Billing Cycles/year 12  
 g. Service Charges/Cycle 0  
 h. Gallons/Bill Unit 748  
 i. Minimum Use/Cycle 0  
 j. Non-billed Units (included in monthly service charge) 0

	<b>\$/Bill Unit</b>	<b>Starting At (unit qty.)</b>
k. Tier 1	1.01674	0
l. Tier 2	1.20269	525
m. Tier 3		
n. Tier 4		
o. Tier 5		
p. Tier 6		

q. Approximate quantity of meters/accounts on this rate schedule 467  
 r. Are elevation charges included? no  
 s. Approximate total annual water usage (AF) from customers on this rate schedule 1170

**BMP 11: Conservation Pricing**

Reporting Unit: **Rancho California Water District**      BMP Form Status: **100% Complete**      Year: **2005**

**8.A. Recycled Rate Schedule A**

a. Water Rate Structure	Uniform
b. Sewer Rate Structure	Service Not Provided
c. Total Revenue from only Volumetric Charges	754086.39
d. Total Revenue from Non-Volumetric Charges (Includes fixed fees, surcharges, minimum usage charges, monthly service charges, meter charges etc.)	20573.15
e. Total Revenue from this category	774659.54

**8.A. Rate Schedule - Volumetric**

**Title:** Tertiary Treated Recycled Water - Both Divisions

f. Billing Cycles/year		12
g. Service Charges/Cycle		10
h. Gallons/Bill Unit		325851
i. Minimum Use/Cycle		0
j. Non-billed Units (included in monthly service charge)		0
	<b>\$/Bill Unit</b>	<b>Starting At (unit qty.)</b>
k. Tier 1	178.12	0
l. Tier 2		
m. Tier 3		
n. Tier 4		
o. Tier 5		
p. Tier 6		
q. Approximate quantity of meters/accounts on this rate schedule		242
r. Are elevation charges included?		no
s. Approximate total annual water usage (AF) from customers on this rate schedule		5020

**BMP 12: Conservation Coordinator**

Reporting Unit:	BMP Form Status:	Year:
<b>Rancho California Water District</b>	<b>100% Complete</b>	<b>2005</b>

**A. Implementation**

- |   |                               |
|---|-------------------------------|
| 1. Does your Agency have a conservation coordinator?  | yes                           |
| 2. Is a coordinator position supplied by another agency with which you cooperate in a regional conservation program ? | no                            |
| a. Partner agency's name:   |                               |
| 3. If your agency supplies the conservation coordinator:  |                               |
| a. What percent is this conservation coordinator's position?  | 25%                           |
| b. Coordinator's Name   | Donna Powers                  |
| c. Coordinator's Title  | Public Information Specialist |
| d. Coordinator's Experience in Number of Years  | 21 years                      |
| e. Date Coordinator's position was created (mm/dd/yyyy)   | 12/04/1985                    |
| 4. Number of conservation staff (FTEs), including Conservation Coordinator.   | 1                             |

**B. Conservation Staff Program Expenditures**

- |  |       |
|--|-------|
| 1. Staffing Expenditures (In-house Only)   | 7000  |
| 2. BMP Program Implementation Expenditures | 25962 |

**C. "At Least As Effective As"**

- |  |    |
|--|----|
| 1. Is your agency implementing an "at least as effective as" variant of this BMP?  | no |
| a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as." |    |

**D. Comments**

None

**BMP 13: Water Waste Prohibition**

Reporting Unit: **Rancho California Water District**      BMP Form Status: **100% Complete**      Year: **2005**

**A. Requirements for Documenting BMP Implementation**

1. Is a water waste prohibition ordinance in effect in your service area? yes

a. If YES, describe the ordinance:

Resolution 91-5-8 identifies five water supply stages during which certain potentially wasteful activities are prohibited. During Stage 1 - Normal Condition, specific language prevents run-off and customers are reminded that water waste is a violation of California Law and District regulations at all times. As the water supply decreases due to drought or temporary operations shortages the stage numbers increase and the water-use restrictions become increasingly strict.

2. Is a copy of the most current ordinance(s) on file with CUWCC? no

a. List local jurisdictions in your service area in the first text box and water waste ordinance citations in each jurisdiction in the second text box:

<p>TEMECULA, MURRIETA AND THE COUNTY OF RIVERSIDE</p>	<p>City of Temecula Development Code Chapter 17.32; City of Murrieta Ordinance 182-2; County of Riverside Code Chapter 17.286</p>
---	---

**B. Implementation**

1. Indicate which of the water uses listed below are prohibited by your agency or service area.

- |  |    |
|--|----|
| a. Gutter flooding   | no |
| b. Single-pass cooling systems for new connections                   | no |
| c. Non-recirculating systems in all new conveyor or car wash systems | no |
| d. Non-recirculating systems in all new commercial laundry systems   | no |
| e. Non-recirculating systems in all new decorative fountains         | no |
| f. Other, please name  | no |

2. Describe measures that prohibit water uses listed above:

No ordinance specifically prohibited the above water uses during FY 2005. RCWD signed the MOU in March of 2005 and will soon work to address this requirement.

**Water Softeners:**

3. Indicate which of the following measures your agency has supported in developing state law:

- |   |     |
|---|-----|
| a. Allow the sale of more efficient, demand-initiated regenerating DIR models.  | yes |
| b. Develop minimum appliance efficiency standards that:   |     |
| i.) Increase the regeneration efficiency standard to at least 3,350 grains of hardness removed per pound of common salt used. | yes |
| ii.) Implement an identified maximum number of gallons discharged per gallon of soft water                                    | yes |

produced.

c. Allow local agencies, including municipalities and special districts, to set more stringent standards and/or to ban on-site regeneration of water softeners if it is demonstrated and found by the agency governing board that there is an adverse effect on the reclaimed water or groundwater supply. yes

4. Does your agency include water softener checks in home water audit programs? no

5. Does your agency include information about DIR and exchange-type water softeners in educational efforts to encourage replacement of less efficient timer models? no

### **C. "At Least As Effective As"**

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? no

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

### **D. Comments**

None

**BMP 14: Residential ULFT Replacement Programs**

Reporting Unit: **Rancho California Water District**      BMP Form Status: **100% Complete**      Year: **2005**

**A. Implementation****Number of 1.6 gpf Toilets Replaced by Agency Program During Report Year**

	Single-Family Accounts	Multi-Family Units
1. Does your Agency have program(s) for replacing high-water-using toilets with ultra-low flush toilets?	yes	yes
<b>Replacement Method</b>	<b>SF Accounts</b>	<b>MF Units</b>
2. Rebate	154	0
3. Direct Install	0	0
4. CBO Distribution	0	0
5. Other	0	0
<b>Total</b>	<b>154</b>	<b>0</b>

**Number of 1.2 gpf High-Efficiency Toilets (HETs) Replaced by Agency Program During Report Year**

	Single-Family Accounts	Multi-Family Units
6. Does your Agency have program(s) for replacing high-water-using toilets with ultra-low flush toilets?	no	no
<b>Replacement Method</b>	<b>SF Accounts</b>	<b>MF Units</b>
7. Rebate	0	0
8. Direct Install	0	0
9. CBO Distribution	0	0
10. Other	0	0
<b>Total</b>	<b>0</b>	<b>0</b>

**Number of Dual-Flush Toilets Replaced by Agency Program During Report Year**

	Single-Family Accounts	Multi-Family Units
11. Does your Agency have program(s) for replacing high-water-using toilets with ultra-low flush toilets?	no	no
<b>Replacement Method</b>	<b>SF Accounts</b>	<b>MF Units</b>
12. Rebate	0	0
13. Direct Install	0	0
14. CBO Distribution	0	0
15. Other	0	0
<b>Total</b>	<b>0</b>	<b>0</b>

16. Describe your agency's ULFT, HET, and/or Dual-Flush Toilet programs for

single-family residences.

IN FY 2005, RCWD'S TOILET REPLACEMENT PROGRAM WAS SOLELY A REBATE FOR THE REPLACEMENT OF NON-CONSERVING UNITS WITH ULFTS. SINGLE FAMILY AND MULTI FAMILY WERE PERMITTED TO PARTICIPATE.

17. Describe your agency's ULFT, HET, and/or Dual-Flush Toilet programs for multi-family residences.

IN FY 2005, RCWD'S TOILET REPLACEMENT PROGRAM WAS SOLELY A REBATE FOR THE REPLACEMENT OF NON-CONSERVING UNITS WITH ULFTS. SINGLE FAMILY AND MULTI FAMILY WERE PERMITTED TO PARTICIPATE.

18. Is a toilet retrofit on resale ordinance in effect for your service area? no

19. List local jurisdictions in your service area in the left box and ordinance citations in each jurisdiction in the right box:

### **B. Residential ULFT Program Expenditures**

1. Estimated cost per ULFT/HET replacement: 56

### **C. "At Least As Effective As"**

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? no

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

### **D. Comments**

Estimated Cost per ULFT does not include the \$60 per unit rebate incentive that was passed to the customer.

# **APPENDIX E**

## **2006 CUWCC REPORT**

Reported as of 12/1/06

**Water Supply & Reuse**

Reporting Unit:

**Rancho California Water District**

Year:

**2006****Water Supply Source Information**

<b>Supply Source Name</b>	<b>Quantity (AF) Supplied</b>	<b>Supply Type</b>
MWD Treated	35969	Imported
SRWRF	4462	Recycled
TVRWF	893	Recycled
RCWD	40700	Groundwater
Vail Lake	834	Local Watershed

**Total AF: 82858**

**Accounts & Water Use**

Reporting Unit Name:	Submitted to	Year:
<b>Rancho California Water District</b>	<b>CUWCC</b>	<b>2006</b>
	<b>11/30/2006</b>	

**A. Service Area Population Information:**

1. Total service area population 111960

**B. Number of Accounts and Water Deliveries (AF)**

Type	Metered		Unmetered	
	No. of Accounts	Water Deliveries (AF)	No. of Accounts	Water Deliveries (AF)
1. Single-Family	34513	28200	0	0
2. Multi-Family	186	1758	0	0
3. Commercial	2425	4370	0	0
4. Industrial	0	0	0	0
5. Institutional	0	0	0	0
6. Dedicated Irrigation	1099	2120	0	0
7. Recycled Water	339	5355	0	0
8. Other	2936	38572	0	0
9. Unaccounted	NA	0	NA	0
<b>Total</b>	<b>41498</b>	<b>80375</b>	<b>0</b>	<b>0</b>

Reported as of 12/1/06

## BMP 01: Water Survey Programs for Single-Family and Multi-Family Residential Customers

Reporting Unit: **Rancho California Water District**      BMP Form Status: **100% Complete**      Year: **2006**

### A. Implementation

- |  |            |
|--|------------|
| 1. Based on your signed MOU date, 03/09/2005, your Agency STRATEGY DUE DATE is:  | 03/09/2007 |
| 2. Has your agency developed and implemented a targeting/marketing strategy for SINGLE-FAMILY residential water use surveys? | yes        |
| a. If YES, when was it implemented?  | 07/28/2004 |
| 3. Has your agency developed and implemented a targeting/marketing strategy for MULTI-FAMILY residential water use surveys?  | yes        |
| a. If YES, when was it implemented?  | 07/28/2004 |

### B. Water Survey Data

Survey Counts:	Single Family Accounts	Multi-Family Units
1. Number of surveys offered:	170	6
2. Number of surveys completed:	138	6

### Indoor Survey:

- |   |    |    |
|---|----|----|
| 3. Check for leaks, including toilets, faucets and meter checks   | no | no |
| 4. Check showerhead flow rates, aerator flow rates, and offer to replace or recommend replacement, if necessary   | no | no |
| 5. Check toilet flow rates and offer to install or recommend installation of displacement device or direct customer to ULFT replacement program, as necessary; replace leaking toilet flapper, as necessary | no | no |

### Outdoor Survey:

- |  |     |                 |
|--|-----|-----------------|
| 6. Check irrigation system and timers  | yes | yes             |
| 7. Review or develop customer irrigation schedule  | yes | yes             |
| 8. Measure landscaped area (Recommended but not required for surveys)  | no  | no              |
| 9. Measure total irrigable area (Recommended but not required for surveys)   | no  | no              |
| 10. Which measurement method is typically used (Recommended but not required for surveys)                                |     | None            |
| 11. Were customers provided with information packets that included evaluation results and water savings recommendations? | yes | yes             |
| 12. Have the number of surveys offered and completed, survey results, and survey costs been tracked?                     | yes | yes             |
| a. If yes, in what form are surveys tracked?   |     | manual activity |
| b. Describe how your agency tracks this information.   |     |                 |

Contractor provides paper copies of completed evaluations. Indication of

completed evaluation is entered into customer billing system.

**C. "At Least As Effective As"**

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? No

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

**D. Comments**

RCWD's Targeted Conservation Program focuses on the 500 highest water-use residential customers. Installed WBIC counted as evaluations.

**BMP 02: Residential Plumbing Retrofit**

Reporting Unit:

**Rancho California Water District**

BMP Form Status:

**100% Complete**

Year:

**2006****A. Implementation**

1. Is there an enforceable ordinance in effect in your service area requiring replacement of high-flow showerheads and other water use fixtures with their low-flow counterparts? no
- a. If YES, list local jurisdictions in your service area and code or ordinance in each:
2. Has your agency satisfied the 75% saturation requirement for single-family housing units? no
3. Estimated percent of single-family households with low-flow showerheads: %
4. Has your agency satisfied the 75% saturation requirement for multi-family housing units? no
5. Estimated percent of multi-family households with low-flow showerheads: %
6. If YES to 2 OR 4 above, please describe how saturation was determined, including the dates and results of any survey research.

**B. Low-Flow Device Distribution Information**

1. Has your agency developed a targeting/ marketing strategy for distributing low-flow devices? yes
- a. If YES, when did your agency begin implementing this strategy? 04/01/2005
- b. Describe your targeting/ marketing strategy.

In FY 2006, RCWD provided program messages in the customer newsletter and on monthly billing statements.

Low-Flow Devices Distributed/ Installed	SF Accounts	MF Units
2. Number of low-flow showerheads distributed:	58	0
3. Number of toilet-displacement devices distributed:	0	0
4. Number of toilet flappers distributed:	0	0
5. Number of faucet aerators distributed:	30	0
6. Does your agency track the distribution and cost of low-flow devices? <span style="float: right;">yes</span>		
a. If YES, in what format are low-flow devices tracked? <span style="float: right;">Spreadsheet</span>		
b. If yes, describe your tracking and distribution system :		

MS Excel Spreadsheet

**C. "At Least As Effective As"**

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? No
- a. If YES, please explain in detail how your implementation of this BMP

differs from Exhibit 1 and why you consider it to be "at least as effective as."

**D. Comments**

**BMP 03: System Water Audits, Leak Detection and Repair**

Reporting Unit: **Rancho California Water District**      BMP Form Status: **100% Complete**      Year: **2006**

**A. Implementation**

- |  |          |
|--|----------|
| 1. Does your agency own or operate a water distribution system?  | yes      |
| 2. Has your agency completed a pre-screening system audit for this reporting year?   | no       |
| 3. If YES, enter the values (AF/Year) used to calculate verifiable use as a percent of total production:   |          |
| a. Determine metered sales (AF)  | 77493.77 |
| b. Determine other system verifiable uses (AF)   | 0        |
| c. Determine total supply into the system (AF)   | 77503    |
| d. Using the numbers above, if (Metered Sales + Other Verifiable Uses) / Total Supply is < 0.9 then a full-scale system audit is required.                       | 1.00     |
| 4. Does your agency keep necessary data on file to verify the values entered in question 3?  | yes      |
| 5. Did your agency complete a full-scale audit during this report year?  | no       |
| 6. Does your agency maintain in-house records of audit results or completed AWWA M36 audit worksheets for the completed audit which could be forwarded to CUWCC? | no       |
| 7. Does your agency operate a system leak detection program?   | no       |
| a. If yes, describe the leak detection program:  |          |

**B. Survey Data**

- |  |        |
|--|--------|
| 1. Total number of miles of distribution system line.    | 851.51 |
| 2. Number of miles of distribution system line surveyed. | 0      |

**C. "At Least As Effective As"**

- |  |    |
|--|----|
| 1. Is your agency implementing an "at least as effective as" variant of this BMP?  | No |
| a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as." |    |

**D. Comments**

FY 2006 supply into the system includes treated water purchased from MWD; locally produced groundwater and vail water.

**Voluntary Questions (Not used to calculate compliance)****E. Volumes**

- |   | <b>Estimated</b> | <b>Verified</b> |
|---|------------------|-----------------|
| 1. Volume of raw water supplied to the system:    |                  |                 |
| 2. Volume treated water supplied into the system: |                  |                 |
| 3. Volume of water exported from the system:      |                  |                 |
| 4. Volume of billed authorized metered            |                  |                 |

consumption:

5. Volume of billed authorized unmetered consumption:

6. Volume of unbilled authorized metered consumption:

7. Volume of unbilled authorized unmetered consumption:

## **F. Infrastructure and Hydraulics**

1. System input (source or master meter) volumes metered at the entry to the:

2. How frequently are they tested and calibrated?

3. Length of mains:

4. What % of distribution mains are rigid pipes (metal, ac, concrete)?

5. Number of service connections:

6. What % of service connections are rigid pipes (metal)?

7. Are residential properties fully metered?

8. Are non-residential properties fully metered?

9. Provide an estimate of customer meter under-registration:

10. Average length of customer service line from the main to the point of the meter:

11. Average system pressure:

12. Range of system pressures:

From to

13. What percentage of the system is fed from gravity feed?

14. What percentage of the system is fed by pumping and re-pumping?

## **G. Maintenance Questions**

1. Who is responsible for providing, testing, repairing and replacing customer meters?

2. Does your agency test, repair and replace your meters on a regular timed schedule?

a. If yes, does your agency test by meter size or customer category?:

b. If yes to meter size, please provide the frequency of testing by meter size:

Less than or equal to 1"

1.5" to 2"

3" and Larger

c. If yes to customer category, provide the frequency of testing by customer category:

SF residential

MF residential

Commercial

Industrial & Institutional

3. Who is responsible for repairs to the customer lateral or customer service line?

4. Who is responsible for service line repairs downstream of the customer meter?

E9

5. Does your agency proactively search for leaks using leak survey techniques or does your utility reactively repair leaks which are called in, or both?

6. What is the utility budget breakdown for:

Leak Detection	\$
Leak Repair	\$
Auditing and Water Loss Evaluation	\$
Meter Testing	\$

**H. Comments**

### BMP 04: Metering with Commodity Rates for all New Connections and Retrofit of Existing

Reporting Unit: **Rancho California Water District**      BMP Form Status: **100% Complete**      Year: **2006**

#### A. Implementation

1. Please fill out the following matrix:

Types of Billed Accounts	% Accounts Metered	% Accounts Measured (Not Metered)	% Accounts Volumetric Billing
Treated Water SF Residential Accounts	100		100
Treated Water MF Residential Accounts	100		100
Treated Water Commercial Accounts	100		100
Treated Water Industrial Accounts	100		100
Treated Water Institutional Accounts	100		100
Raw Water Residential Deliveries	0	0	0
Raw Water Non-Residential Deliveries	0	0	0

2. If your agency does not meter 100% of all treated water accounts:

- a. Does your agency have a plan or program for retrofitting existing unmetered treated water connections? No
- b. By what date would 100% of all treated water accounts be metered?
- c. Number of previously unmetered accounts fitted with meters during report year:

3. If your agency does bill 100% of all treated water accounts by volume of use:

- a. By what date (Year must be four digit mm/dd/yyyy) will all customers with meters be billed by volume of use?

4. If your agency does not meter or measure 100% of all raw water delivery fields (as listed in question 1f & 1g), does your agency intend to develop a program for measuring all raw water deliveries? No

5. If your agency does not volumetrically bill 100% of all raw water delivery, does your agency intend to develop a program for billing all raw water deliveries by volume of use? No

6. Does your agency meter by volume of use all municipal or governmental accounts?: Yes

- a. If no, which types of accounts are not included:

E11

7. Does your agency bill by volume of use all municipal or governmental accounts? Yes

a. If no, which types of accounts are not included:

### B. Feasibility Study

1. 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? no

a. If YES, when was the feasibility study conducted? (mm/dd/yy)

b. Describe the feasibility study:

2. Number of CII accounts with mixed-use meters: 0

3. Number of CII accounts with mixed-use meters retrofitted with dedicated irrigation meters during reporting period 0

### D. "At Least As Effective As"

1. Is your agency implementing an "at least as effective as" variant of this BMP? No

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

### E. Comments

Report completed by Jason Martin and Sheri Todd.

## BMP 05: Large Landscape Conservation Programs and Incentives

Reporting Unit:  
**Rancho California  
 Water District**

BMP Form Status:  
**100% Complete**

Year:  
**2006**

### A. Water Use Budgets

- |  |      |
|--|------|
| 1. Number of Dedicated Irrigation Meter Accounts:  | 1099 |
| 2. Number of Dedicated Irrigation Meter Accounts with Water Budgets:                         | 1099 |
| 3. Budgeted Use for Irrigation Meter Accounts with Water Budgets (AF) during reporting year: | 5617 |
| 4. Actual Use for Irrigation Meter Accounts with Water Budgets (AF) during reporting year:   | 6718 |
| 5. Does your agency provide water use notices to accounts with budgets each billing cycle?   | yes  |

### B. Landscape Surveys

- |  |            |
|--|------------|
| 1. Has your agency developed a marketing / targeting strategy for landscape surveys? | yes        |
| a. If YES, when did your agency begin implementing this strategy?                    | 07/28/2004 |
| b. Description of marketing / targeting strategy:                                    |            |

Rancho California Water District began implementing its Targeted Conservation Program (TCP) in July 2004. The program, provides water-use efficiency evaluations for the District's high water-use customers. If a customer's annual water-use is 200-percent higher than the average consumption in their customer class, they are "targeted" for program participation. 2,500 urban water users were initially identified for the program. The goal of the Targeted Conservation Program is to reduce the demand for more costly Tier 2 imported water.

- |   |      |
|---|------|
| 2. Number of Surveys Offered during reporting year.                             | 1225 |
| 3. Number of Surveys Completed during reporting year.                           | 724  |
| 4. Indicate which of the following Landscape Elements are part of your survey:  |      |
| a. Irrigation System Check  | yes  |
| b. Distribution Uniformity Analysis   | no   |
| c. Review / Develop Irrigation Schedules  | yes  |
| d. Measure Landscape Area   | yes  |
| e. Measure Total Irrigable Area   | yes  |
| f. Provide Customer Report / Information  | yes  |
| 5. Do you track survey offers and results?                                      | yes  |
| 6. Does your agency provide follow-up surveys for previously completed surveys? | yes  |
| a. If YES, describe below:  |      |

RCWD's high water use list is generated each year. If a customer remains on the list from year to year and a follow up visit may yield additional savings a follow up evaluation may be conducted.

### C. Other BMP 5 Actions

- |   |     |
|---|-----|
| 1. An agency can provide mixed-use accounts with ET-based landscape budgets in lieu of a large landscape survey | yes |
|---|-----|

- program.  
 Does your agency provide mixed-use accounts with landscape budgets? 0
2. Number of CII mixed-use accounts with landscape budgets. 0
- Number of CII accounts with mixed-use meters retrofitted with dedicated irrigation meters during reporting period. (From BMP 4 report) 0
- Total number of change-outs from mixed-use to dedicated irrigation meters since Base Year.
3. Do you offer landscape irrigation training? yes
4. Does your agency offer financial incentives to improve landscape water use efficiency? yes

Type of Financial Incentive:	Budget (Dollars/Year)	Number Awarded to Customers	Total Amount Awarded
a. Rebates	0	0	0
b. Loans	0	0	0
c. Grants	0	0	0

5. Do you provide landscape water use efficiency information to new customers and customers changing services? No
- a. If YES, describe below:
6. Do you have irrigated landscaping at your facilities? yes
- a. If yes, is it water-efficient? yes
- b. If yes, does it have dedicated irrigation metering? yes
7. Do you provide customer notices at the start of the irrigation season? no
8. Do you provide customer notices at the end of the irrigation season? no

**D. "At Least As Effective As"**

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? No
- a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

**E. Comments**

RCWD, through grant funding and financial incentives offered by Metropolitan Water District(MWD), directly installed more than 500 weather based irrigation controllers during FY 2006. These controllers are responsible for more than 750 acres of irrigated landscape. Most of the controllers were installed in HOA common area and commercial landscapes. In addition, RCWD passes all MWD landscape financial incentive programs on to its customers.

## BMP 06: High-Efficiency Washing Machine Rebate Programs

Reporting Unit: **Rancho California Water District**      BMP Form Status: **100% Complete**      Year: **2006**

### A. Coverage Goal

	Single Family	Multi-Family
1. Number of <b>residential</b> dwelling units in the agency service area.	27,518	6,336
2. Coverage Goal = Total Dwelling Units x 0.048	= 1,625 Points	

### B. Implementation

1. Does your agency offer rebates for **residential** high-efficiency washers?      yes

HEW Water Factor	Number of Financial Incentives Issued	Total Value of Financial Incentives			TOTAL	POINTS AWARDED
		Retail Water Agency	Wholesaler/ Grants (if applicable)	Energy Utility (if applicable)		
2. Greater than 8.5 but not exceeding 9.5 (1 point)	0	\$ 0	\$ 0	\$ 0	\$ 0	0
3. Greater than 6.0 but not exceeding 8.5 (2 points)	0	\$ 0	\$ 0	\$ 0	\$ 0	0
4. Less than or equal to 6.0 (3 points)	311	\$ 0	\$ 0	\$ 0	\$ 0	0
<b>TOTALS:</b>	<b>311</b>	<b>\$ 0</b>	<b>\$ 0</b>	<b>\$ 0</b>	<b>\$ 0</b>	<b>0</b>

### C. Past Credit Points

**For HEW incentives issued before July 1, 2004, select ONE of the following TWO options:**

- Method One: Points based on HEW Water Factor
  - Method Two: Agency earns 1 point for each HEW.
- NOTE: Agency shall not receive credit for any HEW incentives where the agency did not provide a financial incentive of \$25 or more.

#### Method One: Points based on HEW Water Factor

HEW Water Factor	Number of Financial Incentives Issued	Total Value of Water Agency Financial Incentives	POINTS AWARDED
1. Greater than 8.5 but not exceeding 9.5 (1 point each)	7	\$ 0	0
2. Greater than 6.0 but not exceeding 8.5 (2 points each)	150	\$ 0	0

E15

<b>3. Less than or equal to 6.0</b> (3 points each)	171	\$ 0	0
--	-----	------	---

**Method Two: Agency earns 1 point for each HEW**

	Number of Financial Incentives Issued	Total Value of Water Agency Financial Incentives	POINTS AWARDED
<b>4. Total HEWs installed</b>			
<b>PAST CREDIT TOTALS:</b>	<b>328</b>	<b>\$ 0</b>	<b>0</b>

**D. Rebate Program Expenditures**

- 1. Average or Estimated Administration and Overhead \$ 7,500
- 2. Is the financial incentive offered per HEW at least equal to the marginal benefits of the water savings per HEW?

**E. "At Least As Effective As"**

- 1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? no
  - a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

**F. Comments**

## BMP 07: Public Information Programs

Reporting Unit:

**Rancho California Water District**

BMP Form Status:

**100% Complete**

Year:

**2006**

### A. Implementation

1. How is your public information program implemented?

Wholesaler and retailer both materially participate in program

Which wholesaler(s)?

Western Municipal Water District; Eastern Municipal Water District; and the Metropolitan Water District of Southern California

2. Describe the program and how it's organized:

Rancho California Water District's public information program consists of community, legislative and media outreach. The program is managed under the direction of the Director of planning. The various public information outreach efforts focus on informing and educating the District's stakeholders on various topics relating to water and the organization itself. Included in these topics are: water conservation, water reliability, water quality and infrastructure planning. The District supports the local, regional and statewide community through its public information efforts. COMMUNITY Quarterly customer newsletter: includes annual water quality report and seasonal information. Public outreach notices: includes time-sensitive information on rate increases and chloraminated water adjustments. Bottled water program: reaching 80 organizations, including Temecula Rotary, habitat for Humanity, Temecula Valley Public Library, American Cancer Society and Boys & Girls Club. Community Water Conservation Festival: co-sponsored with other local water agencies to educate the community on the importance of water conservation with live demos on various products that can be used to improve water efficiency. Enough H2O Campaign: combined effort between local water agencies to educate customers on how much water to use on their lawns, how often and for how many minutes over the summer months. Balloon & Wine Festival: booth with public information materials available to general public. Susan G. Komen: booth with public information materials available to general public. Sponsorships: ACWA spring and winter conferences, I-215 Corridor Economic Summit, California Urban Water Conservation Council and Riverside County Water Symposium. Website: updates and revisions made to improve public information. LEGISLATIVE Lobbyist efforts: educating local legislators on future projects that affect the Southern California region, to gain support. Support/ opposition letters: written in support or opposition for public policy concerning the water industry. MEDIA Press releases, public service announcements and media advisories: used as a medium to relay messages about the District.

3. Indicate which and how many of the following activities are included in your public information program:

Public Information Program Activity in Retail Service Area	Yes/No	Number of Events
a. Paid Advertising	yes	1
b. Public Service Announcement	yes	3
c. Bill Inserts / Newsletters / Brochures	yes	12
d. Bill showing water usage in comparison to previous year's usage	yes	
e. Demonstration Gardens	yes	0
f. Special Events, Media Events	yes	3
g. Speaker's Bureau	yes	1
h. Program to coordinate with other government agencies, industry and	yes	

public interest groups and media

**B. Conservation Information Program Expenditures**

1. Annual Expenditures (Excluding Staffing) 24546.82

**C. "At Least As Effective As"**

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? No

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

**D. Comments**

Report completed by Liselle DeGrave.

**BMP 08: School Education Programs**

Reporting Unit:

**Rancho California Water District**

BMP Form Status:

**100% Complete**

Year:

**2006**

**A. Implementation**

1. How is your public information program implemented?

Wholesaler and retailer both participate in program

Which wholesaler(s)?

Western Municipal Water District and Eastern Municipal Water District

2. Please provide information on your region-wide school programs (by grade level):

Grade	Are grade-appropriate materials distributed?	No. of class presentations	No. of students reached	No. of teachers' workshops
Grades K-3rd	yes	85	2888	0
Grades 4th-6th	yes	35	2397	0
Grades 7th-8th	yes	0	0	0
High School	yes	0	80	0

4. Did your Agency's materials meet state education framework requirements? yes

5. When did your Agency begin implementing this program? 01/01/1984

**B. School Education Program Expenditures**

1. Annual Expenditures (Excluding Staffing) 13147.55

**C. "At Least As Effective As"**

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? No

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

**D. Comments**

Report completed by Liselle DeGrave.

**BMP 09: Conservation Programs for CII Accounts**

Reporting Unit:  
**Rancho California  
 Water District**

BMP Form Status:  
**100% Complete**

Year:  
**2006**

**A. Implementation**

- 1. Has your agency identified and ranked COMMERCIAL customers according to use? yes
- 2. Has your agency identified and ranked INDUSTRIAL customers according to use? yes
- 3. Has your agency identified and ranked INSTITUTIONAL customers according to use? yes

**Option A: CII Water Use Survey and Customer Incentives Program**

4. Is your agency operating a CII water use survey and customer incentives program for the purpose of complying with BMP 9 under this option? If so, please describe activity during reporting period: no

CII Surveys	Commercial Accounts	Industrial Accounts	Institutional Accounts
a. Number of New Surveys Offered	0	0	0
b. Number of New Surveys Completed	0	0	0
c. Number of Site Follow-ups of Previous Surveys (within 1 yr)	0	0	0
d. Number of Phone Follow-ups of Previous Surveys (within 1 yr)	0	0	0
CII Survey Components	Commercial Accounts	Industrial Accounts	Institutional Accounts
e. Site Visit	yes	yes	yes
f. Evaluation of all water-using apparatus and processes	no	no	no
g. Customer report identifying recommended efficiency measures, paybacks and agency incentives	no	no	no
Agency CII Customer Incentives	Budget (\$/Year)	# Awarded to Customers	Total \$ Amount Awarded
h. Rebates	0	0	0
i. Loans	0	0	0
j. Grants	0	0	0
k. Others	0	0	0

**Option B: CII Conservation Program Targets**

E20

5. Does your agency track CII program interventions and water savings for the purpose of complying with BMP 9 under this option? yes

6. Does your agency document and maintain records on how savings were realized and the method of calculation for estimated savings? yes

7. **System Calculated** annual savings (AF/yr):

CII Programs	# Device Installations
a. Ultra Low Flush Toilets	42
b. Dual Flush Toilets	0
c. High Efficiency Toilets	0
d. High Efficiency Urinals	0
e. Non-Water Urinals	0
f. Commercial Clothes Washers (coin-op only; not industrial)	0
g. Cooling Tower Controllers	2
h. Food Steamers	0
i. Ice Machines	0
j. Pre-Rinse Spray Valves	338
k. Steam Sterilizer Retrofits	0
l. X-ray Film Processors	0

8. **Estimated** annual savings (AF/yr) from agency programs not including the devices listed in Option B. 7., above:

CII Programs	Annual Savings (AF/yr)
a. Site-verified actions taken by agency:	0
b. Non-site-verified actions taken by agency:	0

**B. Conservation Program Expenditures for CII Accounts**

	This Year	Next Year
1. Budgeted Expenditures	0	0
2. Actual Expenditures	0	

**C. "At Least As Effective As"**

1. Is your agency implementing an "at least as effective as" variant of this BMP? No

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

**D. Comments**

RCWD as a water retailer in the Metropolitan Water District service area participates in the Save Water-Save A Buck program for CII water customers.



**BMP 11: Conservation Pricing**

Reporting Unit:  
**Rancho California Water District**

BMP Form  
 Status:  
**100% Complete**

Year:  
**2006**

**A. Implementation****Water Service Rate Structure Data by Customer Class****Number of schedules:**

For the following accounts, how many rate schedules does agency offer/use?

Number of schedules:	Use of classification:
1. <b>Single-family residential</b>	2
2. <b>Multi-family residential</b>	2
3. <b>Commercial</b>	2
4. <b>Industrial</b>	0
5. <b>Institutional/ government</b>	0
6. <b>Dedicated irrigation</b> (potable water)	2
7. <b>Other</b>	0
8. <b>Recycled-reclaimed water</b>	1
9. <b>Raw water</b> (urban use)	0
10. <b>Wholesale</b> (urban use)	0

This agency:

Uses classification in its billing system

Uses classification in its billing system

Uses classification in its billing system

Includes customers in another class

Includes customers in another class

Uses classification in its billing system

Uses classification in its billing system

Uses classification in its billing system

Does not offer this type of water

Does not offer this type of water

**Sewer Service**

11. Does your agency provide sewer service to your water customers? yes

12. If yes, does sewer service use conservation rate structures? no

13. Has your agency made the required efforts (as prescribed in BMP 11) to have sewer services billed on conservation rates? no

14. What water agency activities have been undertaken during the reporting period to achieve waste water agency volumetric billing in your water agency service area? None

**B. "At Least As Effective As"**

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? No

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

**C. Comments**

RCWD rate structure is actually more detailed than this report form allows. RCWD has two divisions with two rate tiers each. The tiers are adjusted for both meter and property size. A different tiered allotment is calculated for meter size and a lot size variance is available at four progressively larger categories of lot size.

**BMP 11: Conservation Pricing**

Reporting Unit: **Rancho California Water District**      BMP Form Status: **100% Complete**      Year: **2006**

**1.A. Single-Family Residential Rate Schedule A**

a. Water Rate Structure	Increasing Block
b. Sewer Rate Structure	Non-volumetric Flat Rate
c. Total Revenue from only Volumetric Charges	7964550
d. Total Revenue from Non-Volumetric Charges (Includes fixed fees, surcharges, minimum usage charges, monthly service charges, meter charges etc.)	4428400
e. Total Revenue from this category	12392950

**1.A. Rate Schedule - Volumetric**

**Title:** Single Family 3/4 inch - Rancho Division

f. Billing Cycles/year	12
g. Service Charges/Cycle	12.71
h. Gallons/Bill Unit	748
i. Minimum Use/Cycle	0
j. Non-billed Units (included in monthly service charge)	0

	<b>\$/Bill Unit</b>	<b>Starting At (unit qty.)</b>
k. Tier 1	.62865	1
l. Tier 2	.8146	525
m. Tier 3		
n. Tier 4		
o. Tier 5		
p. Tier 6		

q. Approximate quantity of meters/accounts on this rate schedule	28708
r. Are elevation charges included?	no
s. Approximate total annual water usage (AF) from customers on this rate schedule	22979

**1.B. Single-Family Residential Rate Schedule B**

a. Water Rate Structure	Increasing Block
b. Sewer Rate Structure	Non-volumetric Flat Rate
c. Total Revenue from only Volumetric Charges	2882159
d. Total Revenue from Non-Volumetric Charges (Includes fixed fees, surcharges, minimum usage charges, monthly service charges, meter charges etc.)	1561254

E24

e. Total Revenue from this category 4443413

**1.B. Rate Schedule - Volumetric**

**Title: SANTA ROSA DIVISION - 3/4 INCH DOMESTIC**

f. Billing Cycles/year 12

g. Service Charges/Cycle 19.65

h. Gallons/Bill Unit 748

i. Minimum Use/Cycle 0

j. Non-billed Units (included in monthly service charge) 0

	<b>\$/Bill Unit</b>	<b>Starting At (unit qty.)</b>
k. Tier 1	1.02811	0
l. Tier 2	1.21406	525
m. Tier 3		
n. Tier 4		
o. Tier 5		
p. Tier 6		

q. Approximate quantity of meters/accounts on this rate schedule 5805

r. Are elevation charges included? no

s. Approximate total annual water usage (AF) from customers on this rate schedule 5221

**BMP 11: Conservation Pricing**

Reporting Unit: **Rancho California Water District**      BMP Form Status: **100% Complete**      Year: **2006**

**2.A. Multi-Family Residential Rate Schedule A**

a. Water Rate Structure	Increasing Block
b. Sewer Rate Structure	Non-volumetric Flat Rate
c. Total Revenue from only Volumetric Charges	847927.67
d. Total Revenue from Non-Volumetric Charges (Includes fixed fees, surcharges, minimum usage charges, monthly service charges, meter charges etc.)	361727.66
e. Total Revenue from this category	1209655.33

**2.A. Rate Schedule - Volumetric**

**Title:** Multi Family Residential - Rancho Division

f. Billing Cycles/year	12
g. Service Charges/Cycle	0
h. Gallons/Bill Unit	748
i. Minimum Use/Cycle	0
j. Non-billed Units (included in monthly service charge)	0

	<b>\$/Bill Unit</b>	<b>Starting At (unit qty.)</b>
k. Tier 1	.62865	1
l. Tier 2	.8146	525
m. Tier 3		
n. Tier 4		
o. Tier 5		
p. Tier 6		

q. Approximate quantity of meters/accounts on this rate schedule	180
r. Are elevation charges included?	no
s. Approximate total annual water usage (AF) from customers on this rate schedule	1589

**2.B. Multi-Family Residential Rate Schedule B**

a. Water Rate Structure	Increasing Block
b. Sewer Rate Structure	Non-volumetric Flat Rate
c. Total Revenue from only Volumetric Charges	281198.66
d. Total Revenue from Non-Volumetric Charges (Includes fixed fees, surcharges, minimum usage charges, monthly service charges, meter charges etc.)	181034.83

E26

e. Total Revenue from this category 462233.49

**2.B. Rate Schedule - Volumetric**

**Title:** Multi Family Residential - Santa Rosa Division

f. Billing Cycles/year 12

g. Service Charges/Cycle 0

h. Gallons/Bill Unit 748

i. Minimum Use/Cycle 0

j. Non-billed Units (included in monthly service charge) 0

	<b>\$/Bill Unit</b>	<b>Starting At (unit qty.)</b>
k. Tier 1	1.02811	1
l. Tier 2	1.21406	525
m. Tier 3		
n. Tier 4		
o. Tier 5		
p. Tier 6		

q. Approximate quantity of meters/accounts on this rate schedule 6

r. Are elevation charges included? no

s. Approximate total annual water usage (AF) from customers on this rate schedule 169

**BMP 11: Conservation Pricing**

Reporting Unit: **Rancho California Water District**      BMP Form Status: **100% Complete**      Year: **2006**

**3.A. Commercial Rate Schedule A**

a. Water Rate Structure	Increasing Block
b. Sewer Rate Structure	Non-volumetric Flat Rate
c. Total Revenue from only Volumetric Charges	2108081.09
d. Total Revenue from Non-Volumetric Charges (Includes fixed fees, surcharges, minimum usage charges, monthly service charges, meter charges etc.)	899311.66
e. Total Revenue from this category	3007392.75

**3.A. Rate Schedule - Volumetric**

**Title:** CII - Rancho Division

f. Billing Cycles/year	12
g. Service Charges/Cycle	0
h. Gallons/Bill Unit	748
i. Minimum Use/Cycle	0
j. Non-billed Units (included in monthly service charge)	0

	<b>\$/Bill Unit</b>	<b>Starting At (unit qty.)</b>
k. Tier 1	.62865	0
l. Tier 2	.8146	525
m. Tier 3		
n. Tier 4		
o. Tier 5		
p. Tier 6		

q. Approximate quantity of meters/accounts on this rate schedule	1713
r. Are elevation charges included?	no
s. Approximate total annual water usage (AF) from customers on this rate schedule	3513

**3.B. Commercial Rate Schedule B**

a. Water Rate Structure	Increasing Block
b. Sewer Rate Structure	Non-volumetric Flat Rate
c. Total Revenue from only Volumetric Charges	699103.95
d. Total Revenue from Non-Volumetric Charges (Includes fixed fees, surcharges, minimum usage charges, monthly service charges, meter charges etc.)	450080.99

e. Total Revenue from this category 1149184.94

**3.B. Rate Schedule - Volumetric**

Title: CII - Santa Rosa Division

f. Billing Cycles/year 12

g. Service Charges/Cycle 0

h. Gallons/Bill Unit 748

i. Minimum Use/Cycle 0

j. Non-billed Units (included in monthly service charge) 0

	<b>\$/Bill Unit</b>	<b>Starting At (unit qty.)</b>
k. Tier 1	1.02811	0
l. Tier 2	1.21406	525
m. Tier 3		
n. Tier 4		
o. Tier 5		
p. Tier 6		

q. Approximate quantity of meters/accounts on this rate schedule 712

r. Are elevation charges included? no

s. Approximate total annual water usage (AF) from customers on this rate schedule 857

**BMP 11: Conservation Pricing**

Reporting Unit: **Rancho California Water District**      BMP Form Status: **100% Complete**      Year: **2006**

**6.A. Irrigation Rate Schedule A**

a. Water Rate Structure	Increasing Block
b. Sewer Rate Structure	Service Not Provided
c. Total Revenue from only Volumetric Charges	1022606.34
d. Total Revenue from Non-Volumetric Charges (Includes fixed fees, surcharges, minimum usage charges, monthly service charges, meter charges etc.)	436245.94
e. Total Revenue from this category	1458852.28

**6.A. Rate Schedule - Volumetric**

**Title:** Domestic Landscape Irrigation - Rancho Division

f. Billing Cycles/year	12
g. Service Charges/Cycle	0
h. Gallons/Bill Unit	748
i. Minimum Use/Cycle	0
j. Non-billed Units (included in monthly service charge)	0

	<b>\$/Bill Unit</b>	<b>Starting At (unit qty.)</b>
k. Tier 1	.62865	0
l. Tier 2	.8146	525
m. Tier 3		
n. Tier 4		
o. Tier 5		
p. Tier 6		

q. Approximate quantity of meters/accounts on this rate schedule	599
r. Are elevation charges included?	no
s. Approximate total annual water usage (AF) from customers on this rate schedule	1056

**6.B. Irrigation Rate Schedule B**

a. Water Rate Structure	Increasing Block
b. Sewer Rate Structure	Service Not Provided
c. Total Revenue from only Volumetric Charges	436245.94
d. Total Revenue from Non-Volumetric Charges (Includes fixed fees, surcharges, minimum usage charges, monthly service charges, meter charges etc.)	218329.21

E30

e. Total Revenue from this category 654575.15

**6.B. Rate Schedule - Volumetric**

**Title:** Domestic Landscape Irrigation - Santa Rosa Division

f. Billing Cycles/year		12
g. Service Charges/Cycle		0
h. Gallons/Bill Unit		748
i. Minimum Use/Cycle		0
j. Non-billed Units (included in monthly service charge)		0
	<b>\$/Bill Unit</b>	<b>Starting At (unit qty.)</b>
k. Tier 1	1.02811	0
l. Tier 2	1.21406	525
m. Tier 3		
n. Tier 4		
o. Tier 5		
p. Tier 6		
q. Approximate quantity of meters/accounts on this rate schedule		500
r. Are elevation charges included?		no
s. Approximate total annual water usage (AF) from customers on this rate schedule		964

**BMP 11: Conservation Pricing**

Reporting Unit: **Rancho California Water District**      BMP Form Status: **100% Complete**      Year: **2006**

**8.A. Recycled Rate Schedule A**

a. Water Rate Structure	Uniform
b. Sewer Rate Structure	Service Not Provided
c. Total Revenue from only Volumetric Charges	777919
d. Total Revenue from Non-Volumetric Charges (Includes fixed fees, surcharges, minimum usage charges, monthly service charges, meter charges etc.)	32546
e. Total Revenue from this category	810465

**8.A. Rate Schedule - Volumetric**

**Title:** Recycled Water - Rancho & Santa Rosa Divisions

f. Billing Cycles/year	12
g. Service Charges/Cycle	10
h. Gallons/Bill Unit	325851
i. Minimum Use/Cycle	0
j. Non-billed Units (included in monthly service charge)	0

	<b>\$/Bill Unit</b>	<b>Starting At (unit qty.)</b>
k. Tier 1	192.5	0
l. Tier 2		
m. Tier 3		
n. Tier 4		
o. Tier 5		
p. Tier 6		

q. Approximate quantity of meters/accounts on this rate schedule	339
r. Are elevation charges included?	no
s. Approximate total annual water usage (AF) from customers on this rate schedule	5355

Reported as of 12/1/06

**BMP 12: Conservation Coordinator**

Reporting Unit:

**Rancho California Water District**

BMP Form Status:

**100% Complete**

Year:

**2006****A. Implementation**

- |   |                  |
|---|------------------|
| 1. Does your Agency have a conservation coordinator?  | yes              |
| 2. Is a coordinator position supplied by another agency with which you cooperate in a regional conservation program ? | no               |
| a. Partner agency's name:   |                  |
| 3. If your agency supplies the conservation coordinator:  |                  |
| a. What percent is this conservation coordinator's position?  | 40%              |
| b. Coordinator's Name   | Tim Barr         |
| c. Coordinator's Title  | Resource Planner |
| d. Coordinator's Experience in Number of Years  | 15 years         |
| e. Date Coordinator's position was created (mm/dd/yyyy)   | 01/03/2006       |
| 4. Number of conservation staff (FTEs), including Conservation Coordinator.   | 3                |

**B. Conservation Staff Program Expenditures**

- |  |        |
|--|--------|
| 1. Staffing Expenditures (In-house Only)   | 98938  |
| 2. BMP Program Implementation Expenditures | 117099 |

**C. "At Least As Effective As"**

- |  |    |
|--|----|
| 1. Is your agency implementing an "at least as effective as" variant of this BMP?  | no |
| a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as." |    |

**D. Comments**

Staff included in staffing expenditures: Tim, Liselle and Donna

**BMP 13: Water Waste Prohibition**

Reporting Unit: **Rancho California Water District**      BMP Form Status: **100% Complete**      Year: **2006**

**A. Requirements for Documenting BMP Implementation**

1. Is a water waste prohibition ordinance in effect in your service area? yes

a. If YES, describe the ordinance:

In June 2006, RCWD adopted a Water Shortage Contingency(WSC) Plan and recinded Resolution 91-5-8 mentioned in the report filed for FY2005. The WSC Plan identifies water supply stages and requires specific measures to prevent water waste.

2. Is a copy of the most current ordinance(s) on file with CUWCC? no

a. List local jurisdictions in your service area in the first text box and water waste ordinance citations in each jurisdiction in the second text box:

City of Temecula, City of Murrieta and the County of Riverside	City of Temecula Development Code Chapter 17.32; City of Murrieta Ordinance 182-2; County of Riverside Code Chapter 17.286
--	--

**B. Implementation**

1. Indicate which of the water uses listed below are prohibited by your agency or service area.

- |  |    |
|--|----|
| a. Gutter flooding   | no |
| b. Single-pass cooling systems for new connections                   | no |
| c. Non-recirculating systems in all new conveyor or car wash systems | no |
| d. Non-recirculating systems in all new commercial laundry systems   | no |
| e. Non-recirculating systems in all new decorative fountains         | no |
| f. Other, please name  | no |

2. Describe measures that prohibit water uses listed above:

No ordinance specifically prohibits the above water uses at this time.

**Water Softeners:**

3. Indicate which of the following measures your agency has supported in developing state law:

- |  |     |
|--|-----|
| a. Allow the sale of more efficient, demand-initiated regenerating DIR models.   | yes |
| b. Develop minimum appliance efficiency standards that:  |     |
| i.) Increase the regeneration efficiency standard to at least 3,350 grains of hardness removed per pound of common salt used.  | yes |
| ii.) Implement an identified maximum number of gallons discharged per gallon of soft water produced.   | yes |
| c. Allow local agencies, including municipalities and special districts, to set more stringent standards and/or to ban on-site regeneration of water softeners if it is demonstrated and found by the agency governing board that there is an adverse effect on the reclaimed water or groundwater | yes |

supply.

4. Does your agency include water softener checks in home water audit programs? no

5. Does your agency include information about DIR and exchange-type water softeners in educational efforts to encourage replacement of less efficient timer models? no

**C. "At Least As Effective As"**

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? no

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

**D. Comments**

None

**BMP 14: Residential ULFT Replacement Programs**

Reporting Unit: **Rancho California Water District**      BMP Form Status: **100% Complete**      Year: **2006**

**A. Implementation****Number of 1.6 gpf Toilets Replaced by Agency Program During Report Year**

	Single-Family Accounts	Multi-Family Units
1. Does your Agency have program(s) for replacing high-water-using toilets with ultra-low flush toilets?	yes	yes
<b>Replacement Method</b>	<b>SF Accounts</b>	<b>MF Units</b>
2. Rebate	64	0
3. Direct Install	0	0
4. CBO Distribution	0	0
5. Other	0	0
<b>Total</b>	<b>64</b>	<b>0</b>

**Number of 1.2 gpf High-Efficiency Toilets (HETs) Replaced by Agency Program During Report Year**

	Single-Family Accounts	Multi-Family Units
6. Does your Agency have program(s) for replacing high-water-using toilets with ultra-low flush toilets?	yes	yes
<b>Replacement Method</b>	<b>SF Accounts</b>	<b>MF Units</b>
7. Rebate	0	0
8. Direct Install	0	0
9. CBO Distribution	0	0
10. Other	0	0
<b>Total</b>	<b>0</b>	<b>0</b>

**Number of Dual-Flush Toilets Replaced by Agency Program During Report Year**

	Single-Family Accounts	Multi-Family Units
11. Does your Agency have program(s) for replacing high-water-using toilets with ultra-low flush toilets?	yes	yes
<b>Replacement Method</b>	<b>SF Accounts</b>	<b>MF Units</b>
12. Rebate	0	0
13. Direct Install	0	0
14. CBO Distribution	0	0
15. Other	0	0
<b>Total</b>	<b>0</b>	<b>0</b>

16. Describe your agency's ULFT, HET, and/or Dual-Flush Toilet programs for

single-family residences.

IN FY 2006 MWD PROVIDED INCREASED INCENTIVES FOR HE AND DF TOILETS. IN ADDITION TO THE STANDARD ULFT REBATE, RCWD OFFERS REBATES FOR SF AND MF WATER CUSTOMERS THAT ELECT TO REPLACE NON-CONSERVING UNITS.

17. Describe your agency's ULFT, HET, and/or Dual-Flush Toilet programs for multi-family residences.

IN FY 2006 MWD PROVIDED INCREASED INCENTIVES FOR HE AND DF TOILETS. IN ADDITION TO THE STANDARD ULFT REBATE, RCWD OFFERS REBATES FOR SF AND MF WATER CUSTOMERS THAT ELECT TO REPLACE NON-CONSERVING UNITS.

18. Is a toilet retrofit on resale ordinance in effect for your service area? no

19. List local jurisdictions in your service area in the left box and ordinance citations in each jurisdiction in the right box:

### **B. Residential ULFT Program Expenditures**

1. Estimated cost per ULFT/HET replacement: 56

### **C. "At Least As Effective As"**

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP? no

a. If YES, please explain in detail how your implementation of this BMP differs from Exhibit 1 and why you consider it to be "at least as effective as."

### **D. Comments**

ULFT REBATE PROGRAM WILL CONCLUDE DECEMBER 31, 2006.  
RCWD WILL FOCUS SOLELY ON HETS IN 2007.

# **APPENDIX F**

## **1940 STIPULATED JUDGEMENT**

1 Cosgrove & O'Neil,  
2 1031 Rowan Bldg.,  
3 458 So. Spring St.,  
4 Los Angeles, Calif.  
5 Trinity 6656  
6 Attorneys for Plaintiff

O'Melveny & Myers,  
900 Title Insurance  
433 So. Spring St.,  
Los Angeles, Calif.  
Michigan 2611  
Attorneys for Defendants.

7 IN THE SUPERIOR COURT OF THE STATE OF CALIFORNIA

8 In and For the County of San Diego

9 RANCHO SANTA MARGARITA  
10 a corporation

No. 42850

11 Plaintiff

12 vs.

13 N. R. Vail, Mary Vail Wilkinson,  
14 Mahlon Vail, Edward N. Vail,  
15 Margaret Vail Bell, The Vail  
16 Company, an association of persons  
17 transacting business under that  
18 common name, N. R. Vail, Mary Vail  
19 Wilkinson, Mahlon Vail; Edward N.  
20 Vail and Margaret Vail Bell, as  
21 Trustees of said Vail Company,  
22 Mahlon Vail, Executor of the Estate  
23 of Margaret R. Vail, deceased, and  
24 Laura Perry Vail, Executrix of the  
25 Estate of William Banning Vail,  
26 Deceased.

STIPULATED JUDGMENT

27 Defendants.

28 Guy Bogart, Lucy Parkman Bogart  
29 and Fred Reinhold, Executors of  
30 the will of Murray Schloss, de-  
31 ceased, and Philip Playtor,

32 Interveners.

33 This cause came on regularly for trial in the above entitled court  
34 and department thereof on Monday, October 18, 1926, at the hour of 10:00 o'clock  
35 A.M., before the court, Honorable L. D. Jennings, Judge, presiding; Messrs.  
36 Munsaker, Britt and Cosgrove appearing as attorneys for the plaintiff, Messrs. Egan  
37 & Dunningan, Messrs. Ward, Ward & Ward, Messrs. Stephens & Stephens, and Messrs.  
38 O'Melveny, Milliken & Tuller, appearing as attorneys for defendants, and Walter  
39 Gould Lincoln, Esq., appearing as attorney for intervenors. The introduction  
40 of evidence, oral and documentary, being completed, arguments, oral and in  
41 writing, having been submitted, and court having considered the same and being  
42 fully advised in the premises, findings of fact and conclusions of law being

1 been signed by the court and filed with the clerk thereof, and judgment on  
2 said findings and conclusions having been signed and entered; defendants and  
3 each of them thereon appealed from said judgment and from each part thereof,  
4 but said interveners did not appeal from said judgment; the Supreme Court of  
5 said State of California upon said appeal having reversed said judgment and  
6 directed a new trial upon certain issues designated in the opinion of said  
7 court reported Rancho Santa Margarita, a corporation, vs. Margaret R. Vail,  
8 et al., L. A. No. 15076, 11 Cal. (2nd) 501, and said plaintiff and defendants  
9 having stipulated to the entry of the following judgment,

10 Now, therefore, IT IS ORDERED, ADJUDGED AND DECREED that:

11  
12 Section First: The plaintiff, Rancho Santa Margarita, a corporation,  
13 and defendants, N. R. Vail, Mary Vail Wilkinson, Mahlon Vail, Edward N. Vail,  
14 Margaret Vail Bell, the Vail Company, an association of persons transacting  
15 business under that common name, N. R. Vail, Mary Vail Wilkinson, Mahlon Vail,  
16 Edward N. Vail and Margaret Vail Bell, as Trustees of said Vail Company, Mahlon  
17 Vail, Executor of the estate of Margaret R. Vail, Deceased, and Laura Perry Vail,  
18 Executrix of the Estate of William Banning Vail, Deceased, and interveners, Guy  
19 Bogart, Lucy Parkman Bogart and Fred Reinhold, Executors of the Will of Murray  
20 Schloss, Deceased, and Philip Playtor, have and each has rights in and to the  
21 waters of the Temecula-Santa Margarita River and its tributaries, and in and to  
22 the use of said waters for all beneficial and useful purposes on their respective  
23 lands herein more specifically described.

24 Section Second: The plaintiff is entitled to take and use upon the  
25 whole or any part of its lands lying within the Rancho Santa Margarita y Las  
26 Flores, San Diego County, California, sixty-six and two-thirds per cent ( $66 \frac{2}{3}\%$ )  
27 of the water of said Temecula-Santa Margarita River and all its tributaries which  
28 naturally, when not artificially diverted or abstracted, flows and descends in  
29 the channel thereof at that certain joint gaging station hereinafter in this  
30 judgment designated as Measuring Station No. Six (6).

31 Section Third: Defendants are entitled to take and use upon the whole  
32 or any part of their lands hereinafter mentioned, thirty-three and one-third per

1 cent (33 1/3%) of the water of said Temecula-Santa Margarita River and all its  
2 tributaries which naturally, when not artificially diverted or abstracted, flows  
3 and descends in the channel thereof at that certain joint gaging station herein-  
4 after designated Measuring Station No. Six (6).

5           The lands of the defendants herein referred to consist of those certain  
6 lands in Riverside County, California, known as Pauba Grant, Lots A, B, C, and D  
7 of Little Temecula Grant, or Rancho as shown on the Wolf partition map of Little  
8 Temecula Grant as described in the final decree of partition in the case of  
9 William Wold vs. Ramona Wolf, being Case No. 5756 of the Superior Court of San  
10 Diego County, State of California, said final decree of partition being recorded  
11 in Book 199 of Deeds, page 464, et seq., records of San Diego County, California,  
12 the southeasterly approximately one-half of Temecula Grant, excluding therefrom  
13 the town site of the unincorporated city or town of Temecula and the various  
14 parcels of land owned by persons other than the defendants herein, as shown by map  
15 entitled "Triangulation Map of Pauba Ranch and Vicinity, Riverside County" received  
16 in evidence in this case and marked "Plaintiff's Exhibit No. U-4", which exhibit  
17 has been incorporated into and constitutes a part of the Transcript on Appeal in  
18 this action (reference is hereby made to said Transcript and to said Exhibit  
19 No. U-4 and by such reference said exhibit is incorporated into and constitutes  
20 a part of this judgment), Santa Rosa Grant, and Vail government lands, which said  
21 Vail government lands, approximately four hundred sixty (460) acres in area, are  
22 more particularly described as: Those certain lands lying within sections  
23 twenty-one (21), twenty-seven (27), twenty-eight (28) and twenty-nine (29) of  
24 Township Eight (8) South, Range Two (2) West, S. B. B. M., Riverside County,  
25 California, and being more particularly identified as Lots Nineteen (19), Twenty  
26 (20), Twenty-one (21), Twenty-six (26), Twenty-seven (27), Thirty (30) and  
27 Thirty-one (31) of Block Fifteen (15), and those portions of Lots Seventeen (17)  
28 and Eighteen (18) of said Block Fifteen (15) lying without but contiguous to the  
29 southeasterly boundary of Lot D of said Little Temecula Grant.

30           Section Fourth: The intervener Philip Playtor is entitled to take and  
31 use upon the whole or any part of his lands riparian to said Temecula-Santa  
32 Margarita River, as hereinafter delineated and defined, one (1) miner's inch  
continuous flow of the waters of said Temecula-Santa Margarita River. The lands

1 of said Philip Playtor riparian to said river are described as follows: The  
2 northwest one-quarter (NW $\frac{1}{4}$ ) of the southeast one-quarter (SE $\frac{1}{4}$ ) and the south  
3 one-half (S $\frac{1}{2}$ ) of the south one-half (S $\frac{1}{2}$ ) of section thirty-three (33) and the  
4 southwest one-quarter (SW $\frac{1}{4}$ ) of the southwest one-quarter (SW $\frac{1}{4}$ ) of section  
5 thirty-four (34), Township Eight (8) South, Range Three (3) West, S. B. M.,  
6 Riverside County, California.

7 Section Fifth: The interveners Guy Bogart, Lucy Parkman Bogart and Fred  
8 [redacted] as executors under the will of Murray Schloss, deceased, own certain  
9 land property in San Diego County, California, of which approximately twenty (20)  
10 acres are riparian to a certain tributary of said Temecula-Santa Margarita River  
11 by the name of Stone Creek and are susceptible of practical and profitable irri-  
12 gation with the water of said creek, said approximately twenty (20) acres being  
13 described as follows: The south one-half (S $\frac{1}{2}$ ) of the northeast one-quarter (NE $\frac{1}{4}$ )  
14 of the northeast one-quarter (NE $\frac{1}{4}$ ) of section four (4) Township Nine (9) South,  
15 Range Three (3) west, S. B. M., San Diego County, in said state. Said inter-  
16 veners are entitled to take from the surface and subsurface waters of said Stone  
17 Creek and use the same on said twenty (20) acres riparian to said Stone Creek,  
18 throughout said dry or irrigation season of each calendar year and from the 1st  
19 day of May of each year until the 31st day of October of the same calendar year,  
20 the entire flow of the waters of said Stone Creek and all its tributaries which  
21 naturally, when not artificially diverted or abstracted, flows or descends in the  
22 channel thereof to and upon said twenty (20) acres parcel; and are entitled to take  
23 from said Stone Creek, during the rainy or winter season of each year, for use  
24 upon said twenty (20) acres of riparian land for all beneficial purposes, five (5)  
25 miner's inches continuous flow.

26 Section Sixth: The waters of said stream and its tributaries herein  
27 apportioned to the interveners shall be deducted from the fractional part of the  
28 waters of said stream herein allotted to plaintiff.

29 Section Seventh: For the purpose of dividing among, and allocating to,  
30 the parties of this action, the waters of the Temecula-Santa Margarita River and  
31 its tributaries, at the places and in the amounts specified in this judgment, the  
32 plaintiff and the defendants immediately shall establish, and thereafter

1 maintain jointly (unless established and/or maintained by U. S. Geological  
2 Survey, Division of Water Resources State Department of Public Works, or other  
3 public body), stream-flow (automatically registering) gaging stations at the  
4 following three locations on the Temecula-Santa Margarita River:

5 Station No. One (1): The upper end of Nigger Canyon at or near the  
6 present location of the Nigger Canyon gaging station;

7 Station No. Three (3): The upper end of Temecula Gorge, immediately  
8 downstream from the confluence of Murrieta Creek, at or near the present location  
9 of the Temecula Gorge gaging station;

10 Station No. Six (6): The Narrows, at or near the present location of  
11 the Ysidora gaging station.

12 And plaintiff and defendants shall establish and maintain jointly  
13 (unless established and/or maintained by U. S. Geological Survey, Division of  
14 Water Resources State Department of Public Works, or other public body), gaging  
15 stations for measuring (and automatically registering) the surface flow of said  
16 stream, or any of its tributaries, at any point thereon where the plaintiff, the  
17 defendants, or the interveners, or any of them, hereafter may construct or main-  
18 tain appliances for the diversions of the surface flow of said stream, or any of  
19 its tributaries. (The cost of establishing and maintaining joint gaging stations  
20 as are required hereunder, including the taking of measurements and observations  
21 thereof, shall be borne equally by the plaintiff and the defendants.)

22 Each party shall establish and maintain meters to determine and auto-  
23 matically register the amount of the underground waters abstracted or diverted  
24 by such party from the underground waters of Temecula-Santa Margarita River and/or  
25 its tributaries by means of wells, either artesian or pumped (except windmill  
26 wells and/or domestic use wells of the parties and/or their tenants); such meters  
27 shall be of a type which will meet the approval of both plaintiff and defendants  
28 or the approval of either party and the engineer in charge of the Los Angeles  
29 office of the U. S. Geological Survey, and shall be installed and maintained in  
30 such manner and place as to be available for inspection by either plaintiff or  
31 defendants at all times.

32 Section Eighth: Whenever the total normal flow of said Temecula-Santa

1 Margarita River (when not artificially diverted or abstracted) measured at  
2 gaging station No. Three (3) exceeds the total normal flow measured at Gaging  
3 Station No. Six (6), then and in that instance the flow of said stream at said  
4 Gaging Station No. Three (3) shall be considered as the total flow of said stream,  
5 and at such time the apportionments and allotments herein provided for shall be  
6 predicated upon the flow of said stream at said Gaging Station No. Three (3).

7 Section Ninth: For the purpose of apportioning to defendants thirty-three  
8 and one-third per cent ( $33\frac{1}{3}\%$ ) of the waters of said stream as in Section Third  
9 provided, it shall be deemed that an amount of water equal to one-half ( $1/2$ ) the  
10 surface flow at Station No. Six (6) or Station No. Three (3), wherever the flow  
11 is the greater (as provided in Section Eighth), pumped and/or diverted from the  
12 subsurface and/or surface waters of said river at points upstream from said  
13 Station No. Three (3), shall constitute thirty-three and one-third per cent  
14 ( $33\frac{1}{3}\%$ ) of the waters of said stream.

5 It is recognized that the practical operation of the various pumping  
6 plants upon the defendants' lands for irrigation makes it difficult, if not  
7 impossible, for defendants to abstract and divert each day an amount of water  
8 the exact equivalent of the proportion of the stream flow measured at Station  
9 No. Six (6), or Station No. Three (3) to which defendants are entitled under  
0 this decree. Accordingly, whenever it is observed that defendants are abstracting  
1 and diverting, or have abstracted and diverted surface and/or underground waters  
2 in amounts in excess of that to which they are entitled hereunder, defendants,  
3 upon learning or being informed of such fact, thereupon shall reduce their  
4 diversions below the amount to which they are entitled under this decree, and  
5 shall continue such reduced diversions for the same period of time as near as  
6 is practicable and in an amount equivalent to the amount of water which defendants  
7 had diverted in excess of that to which they were entitled under this decree.

3 Section Tenth: In addition to the thirty-three and one-third per cent  
4 ( $33\frac{1}{3}\%$ ) of the waters of said stream herein in Section Third allotted to  
5 defendants, they may also divert or abstract from the underground waters of said  
6 Temecula-Santa Margarita River, but not from the surface waters of said stream,  
7 at the places, during the times and upon the conditions hereinafter in this.

1 Section specifically set forth, but not otherwise, a specified amount of subsurface  
2 water herein in this judgment referred to as "Storage Water". The amount of  
3 Storage Water which the defendants may divert or abstract during any irrigation  
4 season shall be determined by the elevation of water (when not artificially  
5 disturbed) on May 1st of each year in a certain well located on defendants' land  
6 known as Windmill Well, in accordance with the following table:

7	Depth of water below ground 8 surface as shown in casing 9 of Windmill Well on May 1st	Amount of Storage Water defendants may divert and apply to beneficial use during irrigation season
10	20 feet or less	1,500 acre feet
11	30 feet	1,125 acre feet
12	40 feet	750 acre feet
13	50 feet	375 acre feet
14	60 feet or more	No acre feet

15 At depths to water intermediate to those above stated proportionate quantities  
16 of water may be taken.

17 The spreading of flood water which does not involve surface impoundment  
18 (either temporary or otherwise) but which may raise the level of water in the  
19 underground basin in which said Windmill Well is drilled and upon which said well  
20 is located, shall not be considered as an artificial disturbance of the elevation  
21 of water in said Windmill Well. Storage water may be directed and used only upon  
22 said lands of defendants hereinbefore described and not elsewhere.

23 For the purpose of indicating the places at which said Storage Water  
24 may be pumped, reference is hereby made to "Plaintiff's Exhibit No. 265". Said  
25 Exhibit by reference has been incorporated into and constitutes a part of the  
26 Transcript on Appeal in this action. Reference is hereby made to said Transcript  
27 and to said Exhibit No. 265 and by such reference said Exhibit is incorporated  
28 into and constitutes a part of this judgment.

29 Shown upon said Exhibit No. 265, and extending in a generally northerly  
30 and southerly direction, is a certain line of wells (hereafter referred to as the  
31 E line of wells) designated on said Exhibit as E-3, E-2 North, E-1 North, E-1  
32 South and E-2 South.

1           Easterly thereof, shown upon said Exhibit, and extending in a generally  
2 northwesterly and southeasterly direction, is a certain line of wells (hereafter  
3 referred to as the P.V. line of wells) designated on said Exhibit as P.V.9,  
4 P.V.6, and P.V.6X. Immediately adjacent to said P.V. line of wells and parallel  
5 thereto, is a certain highway commonly known as Old Warners Ranch Road (now not  
6 in common use).

7           (a) Not more than Thirty per cent (30%) of said Storage Water which  
8 defendants are entitled to pump during any irrigation season may be pumped from  
9 that portion of defendants' lands lying between a line drawn through said E line  
0 of wells, and extended across said underground basin, and a line drawn through said  
1 P.V. line of wells and extended across said basin.

2           (b) At least seventy per cent (70%) of said Storage Water which defendants  
3 are entitled to pump during any irrigation season shall be pumped from that portion  
4 of defendants' lands lying easterly of a line drawn through said P.V. line of  
5 wells and extended across said underground basin.

6           The well hereinbefore described as Windmill Well is situated on Pauba  
7 Grant South sixty-seven degrees fifteen minutes (S 67 deg. 15 min) East of B. M. 11  
8 a distance of approximately eleven hundred (1100) feet, and South fifty-seven  
9 degrees twenty minutes (S 57 deg. 20 min), West of B. M. 12 a distance of approxi-  
0 mately fifteen hundred eighty (1580) feet said bench marks being designated as  
1 Nos. 11 and 12 on said Exhibit No. 265.

2           Should said Windmill Well collapse or otherwise cease to be available  
3 or useful for the purpose of determining ground water elevations in the vicinity  
4 thereof, then another well shall be drilled by the defendants in the same  
5 general location at approximately the same ground surface elevation above sea  
6 level, but not to exceed a distance of one hundred (100) feet from the location  
7 of said Windmill Well. Such new well shall be approximately the same depth and  
8 diameter of casing as said Windmill Well. In event the parties hereto are unable  
9 to agree upon location, depth and diameter of casing of such well, these matters,  
0 upon petition of the parties hereto or either of them, shall be determined by  
1 order of this court.

1 For the purpose of determining defendants' total diversions of the  
2 waters of the Temecula-Santa Margarita River and its tributaries (meaning  
3 thereby to include both the allotment of thirty-three and one third per cent  
4 (33 1/3%) of the waters of the river as defined in Section Third, and the  
5 additional Storage Water as defined in this Section Tenth hereof), any water  
6 abstracted or diverted by defendants from the underground waters of said  
7 river (including underground basins of percolating water within the watershed  
8 of said river and its tributaries) by use of wells or pumps or other means of  
9 diversion, whether now existing or hereafter established, except as herein-  
10 after in this section provided, shall be added to any surface diversions by the  
11 defendants from the waters of said river. Such abstractions by the defendants  
12 of the underground waters of the Temecula-Santa Margarita River are, and for  
13 all purposes of this judgment shall be (except as hereinafter provided) con-  
14 sidered as diversions of the waters of said river, and are and shall be  
15 chargeable against the fractional part of the surface flow of said stream and  
16 the additional amount of Storage Waters herein allotted to defendants.

17 — Water abstracted or diverted from said underground water of said  
18 river which shall not be subject to the provisions of this section are as  
19 follows:

- 20 1. Windmill wells maintained by defendants for the purpose of  
21 supplying water for cattle;
- 22 2. Water used by defendants or their tenants for domestic use  
23 exclusively (but not including any irrigation use);
- 24 3. Waters which defendants may pump directly into the surface flow  
25 of said stream pursuant to the requirements of Section Eleventh hereof.

26 Section Eleventh:

27 Part I. During the irrigation season of each year, to wit, May 1 to  
28 October 31, inclusive, excepting as otherwise in Part I of this Section permitted,  
29 defendants shall cause to be maintained at Gaging Station No. Three (3) a  
30 constant flow of water of not less than three (3) cubic feet per second (one  
31 (1) cubic foot per second being the equivalent of fifty (50) miner's inches).

32 The surface flow at said Station No. Three (3) may be permitted to

1 fall below three (3) cubic feet per second during said irrigation season upon  
2 the following conditions and not otherwise:

3 1. Said surface flow shall not be permitted to fall below three (3)  
4 cubic feet per second for any continuous period of more than ten (10) days;

5 2. An interval of at least ten (10) days shall elapse between periods  
6 during which said surface flow falls below three (3) cubic feet per second;

7 3. Defendants shall contribute to the surface flow at Station No.  
8 Three (3), by means of pumping from Temecula Alluvial Basin, or otherwise, an  
9 amount of water equal to the amount that the actual flow during said period was  
10 less than the required flow of three (3) second feet;

11 4. Such contributions shall be made at the same rate and over the  
12 same period (as near as practicable) as the rate at which said surface flow  
13 was less than Three (3) second feet;

14 5. Such contributions shall be made immediately following the period  
15 in which said required flow of three (3) second feet was not maintained;

16 6. Defendants by means of pumping underground waters directly into  
17 the surface flow of the stream or otherwise during any period in which said  
18 required flow of three (3) second feet was not maintained, shall always maintain  
19 a constant surface flow at Station No. Three (3) of not less than two (2) second  
20 feet.

21 Part II. In the event that, during the irrigation season of any year,  
22 to wit, May 1 to October 31, inclusive, the irrigation of crops on said lands of  
23 defendants reasonably requires more water than they otherwise are entitled to  
24 take under this decree, defendants may abstract and divert underground waters  
25 only, in amounts in excess of that to which they are otherwise entitled hereunder.  
26 Such excessive diversions may be made upon the following conditions and not  
27 otherwise:

28 1. Excessive diversions shall not continue for a period to exceed  
29 eight (8) days consecutively;

30 2. Following any period of excessive diversion, an interval shall  
31 elapse before any further period of excessive diversion, which interval shall  
32 not be less than the number of days during the period of excessive diversions  
immediately preceding;

3. Defendants shall reduce their diversions below the amount to which they are otherwise entitled under this decree, such reductions to be in an amount not less than the amount of water which defendants have diverted in excess of that to which they are otherwise entitled under this decree;

4. Such reductions of their diversions shall be made by defendants immediately following the period during which such excessive diversions were made and shall be completed within ten (10) days thereafter;

5. Defendants, at least one (1) day in advance of the commencement of such diversions, shall advise plaintiff in writing of their requirements and of their intention to avail themselves of the privilege of excessive diversions afforded under part II of this section.

Parts I and II of this Section Eleventh are complementary one of the other and not inconsistent one with the other and hereafter shall be so construed. The purpose of Part I is to require defendants to maintain a constant flow at Station No. three (3) of not less than three (3) cubic feet per second excepting under the conditions stated when the flow may be permitted to fall below three (3) cubic feet per second but not below two (2) cubic feet per second, and when such diminution of the stream flow occurs the amount of such diminution shall be contributed by the defendants by pumping directly into the surface flow of the stream from the Temecula Alluvial Basin or otherwise. Part II permits defendants under the conditions stated to use for short periods amounts of water in excess of their allotment but requires them to contribute shortly thereafter the amount of such excessive diversions by reducing (in an amount not less than the amount of such excessive diversions) the amount of the diversions to which they are otherwise entitled. No part of such excessive diversions is required to be contributed by defendants through direct pumping from the subsurface waters of the Temecula Alluvial Basin into the surface flow of the stream if, during the period of such excessive diversions, the constant stream flow at Station No. Three (3) equals or exceeds three (3) second feet.

Section Twelfth: Defendants at all times shall be entitled to divert from the Temecula-Santa Margarita River and its tributaries, and to apply to beneficial use upon their said lands, an amount of water equal to one-half of

the amount which the plaintiff is entitled to divert from said river and its tributaries and apply to beneficial use upon its lands.

For the purpose of determining the amount of water which defendants are entitled to divert and apply to such beneficial use, computations of the amount of water diverted and applied to beneficial use by each of the parties hereto shall be made monthly, based on joint measurements maintained as herein required. In event said measurements disclose that the amount of water which defendants are entitled to divert and apply to beneficial use pursuant to the provisions of this judgment is less than one-half the amount being applied to beneficial use by plaintiff, thereupon defendants shall be entitled to increase their diversions and applications to beneficial use to an amount sufficient to make defendants' diversions and applications to beneficial use equal to one-half the amount diverted and applied by plaintiff; provided, however, that such additional diversions and applications, if and when made, shall be in addition to diversions made under Sections Third and Tenth hereof, and shall be made by defendants during the irrigation season in which such right accrues, or in the first subsequent season, or part in the same season and the remainder in the first subsequent season, and such diversion, if any, shall be made by pumping from the underground basin at points easterly from said P. V. line of wells.

Section Thirteenth: Each of the parties hereto shall have the right to construct dams or reservoirs on its or their respective lands or elsewhere, for the purpose of intercepting or impounding or conserving such party's share of the flood waters of said river and its tributaries; provided, however, in the event any such dam or reservoir is hereafter constructed by defendants for such purpose, the rights of defendants to abstract and divert Stage Water pursuant to Section Tenth hereof shall cease and terminate.

Defendants shall not make, during any irrigation season, any surface diversions of the waters of said river at the Bridge Pumping Plant, the Cantarini Pumping Plant or the Tule Pumping Plant referred to in the findings herein, or at any other point on said Temecula-Santa Margarita River below the point of Rising Water as shown on said Exhibit No. 265.

Section Fourteenth: The plaintiff, Rancho Santa Margarita, a corporation, shall have and recover of and from the defendants, its costs and disbursements

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herein taxed at Six Thousand Thirty-Six and 62/100 Dollars (\$6,036.62).

Dated at San Diego, California, this 26th day of December, 1940.

GORDON THOMPSON  
Judge

Records indicate that this judgment was recorded in San Diego and  
Riverside Counties on 26 December 1940.