

# **2005 Urban Water Management Plan**



**Walnut Valley Water District  
271 S. Brea Canyon Road  
Walnut, California 91789**

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## **CHAPTER 1 PLAN ADOPTION AND COORDINATION**

*Section 10620 of the Water Code requires that every urban water supplier shall prepare and adopt an urban water management plan (UWMP) in the manner set forth in Article 3, commencing with Section 10640.*

These Water Code requisites are addressed below.

### **1.1 Plan Adoption**

The Walnut Valley Water District (“District”) has prepared this update of its Urban Water Management Plan (UWMP) during the second half of 2005. The UWMP was adopted by the District’s Board of Directors on December 20, 2005 (see resolution in Appendix A) and the final document was submitted to the California Department of Water Resources (DWR) within 10 days following Board approval. The UWMP includes information necessary to meet the requirements of California Water Code Division 6, Part 2.6 - Urban Water Management Planning. Appendix F contains a complete list of informational references used in development of the report.

### **1.2 Public Participation**

The District actively encourages community participation in its UWMP planning efforts and has done so since the plan was first documented in 1985. Residents and other interested parties within the District’s service area were actively encouraged to participate in preparation of the initial plan (1985) and, in subsequent five-year periods (1990, 1995, and 2000), have been invited to attend public meetings held during draft review. This year, as in previous cycles, public meetings have been properly noticed in local newspapers, informing the public of the availability of copies of the draft plan update, which are located at the District office or may be accessed at the District’s web site located at [www.wvwd.com](http://www.wvwd.com).

### **1.3 Planning Coordination**

District consultants have coordinated preparation of this UWMP with the District’s General Manager, Assistant General Manager, Director Administrative Services, Director of Operations, and Director of Finance, along with Board members at the Engineering/Special Projects Committee meeting held in December of this year.

A public meeting was held on December 20, 2005 to receive public comment on the draft UWMP, following which it was formally adopted by the District’s Board of Directors.

District staff has also coordinated the preparation of this plan with the following local and regional agencies:

- City of Diamond Bar
- City of Industry

- City of Pomona
- City of Walnut
- City of West Covina
- Los Angeles County Department of Regional Planning
- Three Valleys Municipal Water District (TVMWD)

Draft copies of this report were provided to each of the agencies above for their edification and use. All comments and suggestions received have been addressed and incorporated within the final document presented to the Board.

Throughout the past five-year planning cycle, the District has continued to sustain an active participating agency role in local watershed (Spadra & Puente Basin/San Jose Creek), regional, and other basin-wide water management planning programs and activities.

Table 1 provides a summary of actions regarding agency coordination in preparation of the District’s UWMP pursuant to California Water Code Sections 10620 and 10621.

<b>Table 1. Coordination with Appropriate Agencies</b>							
<b>Agency</b>	<b>Participated in UWMP Development</b>	<b>Commented on Draft UWMP</b>	<b>Attended Public Meetings</b>	<b>Contacted for Assistance</b>	<b>Received Copy of Draft</b>	<b>Sent Notice of Intention to Adopt</b>	<b>Provided UWMP Information</b>
<i>Relevant Public Agencies</i>							
LA County Sanitation Districts (LACSD)		X <sup>a</sup>			X	X	X
Los Angeles County					X	X	
City of Pomona					X	X	
City of Industry					X	X	
City of West Covina					X	X	
City of Walnut					X	X	
City of Diamond Bar					X	X	
<i>Other Water Suppliers</i>							
MWD					X	X	X
TVMWD	X			X	X	X	X
Rowland Water District					X	X	
Suburban Water Systems					X	X	
Golden State Water Company					X	X	
Valencia Heights Water Co.					X	X	
<i>Water Management Agencies</i>							
Dept. of Water Resources				X			
Puente Basin Watermaster					X	X	X

a) LACSD comments received 12/7/05 incorporated in 12/16/05 final draft.

## CHAPTER 2 DISTRICT PLANNING PROJECTIONS

*Subsections 10631 (a) through (e) of the Water Code require that an agency's UWMP shall cover the following:*

- a) Service area description,*
- b) Identification and quantification of existing and planned water supply sources,*
- c) Description and analysis of local groundwater use,*
- d) Description of exchange or transfer opportunities, and*
- e) A quantification of past, current and projected water deliveries by use sector.*

These Water Code requisites are addressed below.

### **2.1 Service Area Information** {Water Code Section 10631(a)}

The District was formed on July 10, 1952 for the purpose of importing a firm and reliable source of water from the Metropolitan Water District (MWD) to meet domestic and municipal water use needs. The District's primary functions are to acquire, control, distribute, store, and conserve water for the beneficial use of inhabitants and water users located within the District's service area. Prior to District formation and development of the imported supply source, water was provided through small, privately-owned, domestic and irrigation agencies whose only sources of supply were groundwater wells located within the small, highly unreliable Spadra and Puente water basins of the San Jose Creek (Walnut Valley) portion of the Eastern San Gabriel Valley system.

The District's service area encompasses a number of suburban residential communities located approximately 20 miles east of downtown Los Angeles. The present service area includes all of the City of Diamond Bar together with portions of the cities of Walnut, Industry, West Covina, and Pomona, and the eastern portion of the unincorporated Rowland Heights area. The District's service area encompasses 17,966 acres, or approximately 28 square miles.

Walnut Valley is an alluvial valley tracing the historical course of San Jose Creek. The ground surface of the valley floor generally slopes westerly with moderate to gentle grades averaging around one percent. Valley elevations along the banks of San Jose Creek vary from 750 feet at the District's eastern limit near the Pomona Water Reclamation Plant to about 400 feet at its western boundary with the Rowland Water District (RWD). The San Jose Hills, with elevations rising to 1,375 feet, are to the north, and the Puente Hills, with elevations to 1,470 feet, are to the south.

The Puente groundwater basin underlies much of the valley floor through much of the District. The Spadra groundwater basin lies up gradient of the Puente Basin along the northeasterly portion of the District. Groundwater in both the Puente and Spadra basins is generally poor quality, mainly due to past agricultural practices. Only limited amounts of groundwater are currently used for non-potable applications such as industrial process water, landscape irrigation, and agricultural irrigation.

Walnut Valley is primarily a suburban, residential area. Industrial and commercial centers are located essentially within the City of Industry, which runs through the valley. Flatter lands at the base of the San Jose and Puente Hills were initially developed into suburban communities in the 1950-60's at the expense of grazing and dry agricultural lands. Continued residential development since the 1980's has expanded into both adjacent hillsides. These land use changes have caused a shift from historically local agricultural groundwater use to municipal and industrial use, requiring high quality imported water.

A five-member Board of Directors, elected to overlapping four-year terms in odd-numbered years, governs the District. Appendix C includes a map showing the District's service area and District election division boundaries.

### 2.1.1 Population

Population within the District, now approaching 100,000 as shown in Table 2, has increased at an average of 400 residents per year over the past decade. Growth rates slowed substantially in recent years due to the reduction in undeveloped areas remaining within the District. In terms of land use and population, the District's current service area is 85-90 percent built out. The increase in population over the next twenty years (through 2025) is expected to be about 240 residents per year, resulting in less than a 5-percent growth above the present population.

According to the District's 2002 Water System Master Plan (WSMP), which provides the basis for population and water demand projections presented in this report, there are a number of proposed developments that will replace remaining undeveloped lands both within and adjacent to the District. The adjacent land developments, considered within the District's Sphere of Influence (SOI), will eventually result in population growth and associated water demands; however, most are not planned before 2025. Although the District is not anticipating preparation of a SB221 Assessment or SB610 Verification Study over the next five-year period (2006-2010), build-out population and ultimate water demand projections, including the SOI developments, have been expressed in Table 2 as 2030 (optional) values. The increase in population at build out, assuming District water service is provided to adjacent SOI areas by 2030, of an additional 14,360 inhabitants equates to an overall average annual growth rate of 0.56 percent over the next 25 years. The tabulated values provide a firm demographic basis for continued water management planning.

<b>Table 2. Population - Current and Projected</b>						
	<b>2005</b>	<b>2010</b>	<b>2015</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>
Service Area Population <sup>a</sup>	99,640	100,300	101,600	102,900	104,400	106,000
SOI Population <sup>b</sup>	0	0	100	300	500	8,000
<b>Total</b>	<b>99,640</b>	<b>100,300</b>	<b>101,700</b>	<b>103,200</b>	<b>104,900</b>	<b>114,000</b>

a) Includes 19 Planned Development Areas within the District covering a total undeveloped area of 3,305 acres plus existing land uses.

b) Includes City of Walnut (W6-550 ac.), LA County Shell (LACo1-275 ac.) and Boy Scouts areas (LACo2-3,225 ac.) for total of 4,050 acres.

## 2.1.2 Climate

The District enjoys a Mediterranean climate characterized by mild and dry summers and cool winters. The region, a portion of the California Coastal Interior Zone, is subject to wide variations in annual precipitation ranging from 8 to 39 inches with an annual average of 17.0 inches of rainfall. Table 3 shows the average monthly climate experienced within District environs over the past twenty years.

<b>Table 3. Climate (California Coastal Interior Zone)</b>							
	<b>Jan</b>	<b>Feb</b>	<b>March</b>	<b>April</b>	<b>May</b>	<b>June</b>	<b>July</b>
Standard Average ETo	1.72	2.03	3.37	4.54	5.00	5.80	6.51
Average Rainfall	3.61	3.52	2.96	1.23	0.26	0.06	0.01
Average Max. Temperature	65.8	67.8	70.0	74.0	77.5	83.1	90.7
Average Min. Temperature	38.3	40.5	42.5	45.7	50.0	53.3	57.7
	<b>July</b>	<b>Aug</b>	<b>Sept</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec.</b>	<b>Annual</b>
Standard Average ETo	6.51	6.39	4.69	3.48	2.27	1.71	47.5
Average Rainfall	0.01	0.09	0.28	0.69	1.53	2.79	17.0
Average Max. Temperature	90.7	90.7	88.4	81.1	73.3	66.8	77
Average Min. Temperature	57.7	58.2	55.9	50.4	42.8	38.6	48

## 2.2 Water Supply Sources and Systems *{Water Code Section 10631(b)}*

The District is almost entirely dependent on imported potable water purchased from MWD through its member agency, Three Valleys Municipal Water District (TVMWD). Potable water supplied to the District is processed at MWD's Weymouth Treatment Plant (in the City of La Verne), or at TVMWD's Miramar Treatment Plant (in the City of Claremont). The District also receives Weymouth Treatment Plant water through the Badillo/Grand Transmission Main connecting directly to MWD's Middle Feeder (in the City of Covina) and via two connections (turnouts) to MWD's Orange County Feeder (OCF). The District has a total of five connections to MWD feeder lines (PM-10, 12, 15, 21 and 24).

Potable water meeting all state and federal drinking water standards delivered from the MWD Weymouth and TVMWD Miramar treatment plants is conveyed to the District via major transmission mains. The District then distributes this water through a complex distribution system consisting of 11 separate pressure zones, 25 storage tanks at 14 individual sites (combined capacity of 84.8 million gallons), 15 pumping stations, and approximately 354 miles of pipeline ranging in size from 4 to 36-inches in diameter. The District is interconnected with adjacent water agencies through ten metered connections; eight are available for emergency backup use only, while two are for supply to neighboring agencies.

Potable quality groundwater (GW) is not available within the District's service area as the local shallow aquifers (Puente and Spadra Basins) contain high concentrations of total dissolved solids (TDS) and nitrates. The Puente Basin has been adjudicated and is governed by the Puente Basin Watermaster (PBWM) representing local producer/provider interests, including those of the District, RWD, and the City of Industry. The Spadra Basin is un-adjudicated. Groundwater,

drawn from both aquifers, is being pumped for supplemental supply to the District's expanding recycled water (RW) system.

The District has been operating a recycled water distribution system (RWDS) since 1986 that currently provides in excess of 1,800 acre-feet per year (AFY) of recycled water to over 210 customer connections through 32 miles of transmission and distribution piping (4 to 24-inch diameter), a main pump and booster pump station, and two storage tanks. The existing RWDS is capable of delivering up to 2,550 AFY for landscape irrigation at local schools, parks, golf courses, street medians and public buildings. Over 900 acres of irrigated lands within the District's service area are provided service. Most of the supply is processed at the Los Angeles County Sanitation District (LACSD) Pomona Water Reclamation Plant (Pomona WRP) situated just outside the District's northeast boundary and delivered via the LACSD's North Side Line. The recycled water supply is typically augmented by groundwater from existing District wells during the peak summer demand period while makeup water is supplied from the District's potable water system when necessary during deficiencies or outages.

### 2.2.1 Current and Planned Water Supply Sources

The current and planned quantities available to the District from the identified existing and planned water supply sources discussed above and presented in Table 4 are in conformance with Water Code Section 10631(a). Approximately 10 percent of the total quantity of recycled water currently used is derived from local non-potable groundwater wells. The District projects a 28.6 percent (1.1 % per annum) increase above current (2005) quantities in total (potable plus recycled) water supply over the next 25 years. Additional annual potable water and recycled water supplies projected for the 25-year planning period are 5,095 AFY and 2,883 AFY, respectively.

<b>Table 4. Current and Planned Water Supplies – AFY</b>						
<b>Water Supply Sources</b>	<b>2005</b>	<b>2010</b>	<b>2015</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>
Water purchased from:						
TVMWD (for District)	23,819	25,739	26,302	26,616	26,764	28,914
TVMWD (for Suburban Water)	3,505	0	0	0	0	0
Recycled Water (projected use)	1,817	2,915	3,860	4,280	4,550	4,700
Other <sup>a</sup>	0	0	0	0	0	0
<b>Total</b>	<b>29,141</b>	<b>28,654</b>	<b>30,162</b>	<b>30,896</b>	<b>31,314</b>	<b>33,614</b>

a) Includes supplier produced groundwater and surface diversions, transfers and exchanges in or out of basin and groundwater desalination.

The District is currently participating in a multi-agency project to increase supply delivery through a regional recycled water transmission pipeline from the San Jose Creek Water Reclamation Plant (San Jose Creek WRP) located west of the District near the west end of the City of Industry. The recycled water expansion program will virtually eliminate the need for potable water makeup other than during an emergency outage. The District is also developing three additional wells to fully utilize local groundwater supplies for supplementing the two WRP sources of recycled water during maximum dry weather demand periods.

## 2.2.2 Groundwater Sources {Water Code Section 10631(b)(1)-(4)}

The following information has been tabulated in conformance with Water Code Section 10631(b) regarding the availability of local groundwater as a source of potable and recycled water within the suppliers' service area. Table 5 lists District groundwater pumping rights for the adjudicated Puente Basin. A portion of the service area also lies above the Spadra Basin that is non-adjudicated.

<b>Table 5. Groundwater Pumping Rights – AFY</b>	
<b>Basin Name</b>	<b>Pumping Right – AFY</b>
Puente Basin	700
Spadra Basin (non-adjudicated) <sup>a</sup>	NA
<b>Total</b>	<b>700</b>

a) Basin is not considered in overdraft, as under-utilized due to current water quality constraints.

The amount of groundwater pumped by the District to supply the District's recycled water needs is presented in Table 6. Annual groundwater quantities used to meet non-potable demands have more than doubled over the past five years (2000-2005) as planned.

<b>Table 6. Amount of Groundwater Pumped for Recycled System - AFY</b>					
<b>Basin Name (s)</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>
Puente Basin	201	234	309	416	326
Spadra Basin	0	0	0	30	156
<b>Total</b>	<b>201</b>	<b>234</b>	<b>309</b>	<b>446</b>	<b>482</b>
% of RW Supply	6.9%	6.1%	7.2%	9.8%	10.3%
% of Total Water Supply	0.7%	0.8%	1.0%	1.4%	1.4%

The projected amount of groundwater to be pumped by the District for recycled water system use within the service area over the next 25 years is presented in Table 7. The District's 1999 Recycled Water System Master Plan called for construction of three additional wells (300 gpm each) within two basins underlying the service area as peak demands continued to increase.

<b>Table 7. Groundwater Projected to be Pumped for Recycled System - AFY</b>					
<b>Basin Name(s)</b>	<b>2010</b>	<b>2015</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>
Puente & Spadra Basin	1,184	1,184	1,184	1,184	1,184
% of RW Supply	40.6%	30.7%	27.7%	26.0%	25.2%
% of Total Water Supply	4.1%	3.9%	3.8%	3.8%	3.5%

### 2.3 Supply Reliability {Water Code Section 10631(c)-(d)}

Reliability of the District’s total water supply is provided in Table 8 based on importer (MWD) and wholesaler (TVMWD) assessment of regional supply vulnerability to seasonal or climatic shortages. District values have been computed as a constant percentage of TVMWD’s allotment of overall MWD supplies through 2030.

Table 8. Supply Reliability – AFY						
	Normal Water Year	Single Dry Water Year	Multiple Dry Water Year			
			Year 1	Year 2	Year 3	Year 4
MWD	2,542,800	2,489,700	2,507,600	2,507,600	2,507,600	2,507,600
District <sup>a</sup>	38,503	37,699	37,970	37,970	37,970	37,970
% of Normal Supply		97.9%	98.6%	98.6%	98.6%	98.6%

a) Supply reliability for WVWD under dry year conditions is based on assumed allocation of TVMWD base quantities as expressed in the MWD 2005 RUWMP.

The basis of water year data used for both this and the regional water supply vulnerability assessments is provided in Table 9. These data were developed by MWD as part of their Regional Urban Water Management Plan (RUWMP) efforts and have been applied as directed by TVMWD to the local participant member level.

Table 9. Basis of Water Year Data		
Water Year Type	Base Years (s)	Historical Sequence
Normal	1922-1991	Average of all years <sup>a</sup>
Single-Dry	1977	Repeat of 1977 Hydrology
Multiple-Dry	1990-1992	Repeat of 1990-1992 Hydrology

a) Based on IRPSIM study results contained in MWD’s Integrated Water Resources Plan 2003 Update.

Factors that might result in future inconsistencies in supply are listed in Table 10. The relative amount of supply at risk over time because of specific project implementation constraints, legal rulings, climatic changes, environmental judgments, water quality trends, and other factors of concern cannot be quantified by supply source with current knowledge. A non-quantitative expression of potential impact on water supply for these factors in order to describe, at least in general terms, the relative level of importance to the District that may result in an inconsistency of future supply has been provided in this table as well as in Table 22.

A general discussion of the factors listed in Tables 10 and 22 is presented in Section II-6 of MWD’s 2005 RUWMP. To reduce the likelihood of shortfalls in supply, MWD’s 2003 Integrated Resources Plan Update instituted a planning buffer of up to ten percent of regional demands, calling for identification of an additional 500,000 AFY of contingency supplies above that needed to meet the year 2025 regional demands. This buffer includes an equal proportion of local and imported supplies from projects that can be implemented in part or whole, depending on future conditions and Board actions. A portion of this regional buffer consists of water transfer and exchange opportunities as discussed in the following paragraph and table.

Table 10. Factors Resulting in Inconsistency of Supply				
Name of Supply	Legal	Environmental	Climatic	Water Quality
Colorado River	C	B	B	B
California Aqueduct	C	B	B	B
In-Basin Storage	C	C	C	A
Alternative Sources <sup>b</sup>	B	B	C	B

a) Level of risk to overall supply: A – primary concern/impact , B– moderate , C – minor/minimal impact

b) Include transfers, exchanges, water recycling and desalination plus DMM/BMP water-use efficiency measures.

Opportunities for both short-term and long-term water exchange and/or transfers are considered at the importer and wholesale supplier level as presented in Table 11. MWD’s Central Valley/State Water Project (CV/SWP) storage and transfer program represents one of the largest such opportunities. By 2025 an additional 160,000 AFY of supply capability, 125,000 AFY from CV/SWP plus another 35,000 AFY from the Mojave project, is currently planned for the region. TVMWD also anticipates an opportunity for long-term inter-basin transfers amounting to an additional 5,000 AFY within the eastern San Gabriel basin area. The District is not, at this time, considering pursuit of separate transfer or independent water exchange opportunities with other area agency suppliers/providers.

Table 11. Transfer and Exchange Opportunities – AFY					
Source Transfer Agency	Transfer or Exchange	Short-Term	Proposed Quantities	Long-Term	Proposed Quantities
MWD	Inter-Basin	< 1 yr	10,000	> 1 yr	160,000
TVMWD	Intra-Basin	< 1 yr	5,000	> 1 yr	10,000
WVWD	w/other retailers	< 1 yr	0	> 1 yr	0
<b>Total</b>			<b>15,000</b>		<b>170,000</b>

## 2.4 Water Use by Customer-Type {Water Code Section 10631(e)}

Past, current, and projected District water deliveries are presented in Tables 12a (customer accounts) and 12b (metered deliveries) by water use/customer account sector. The District has no un-metered accounts. The demand projections by customer type are based on application of the number of customers per account type to General Plan land-use zoning designations for each of 19 designated development areas within the District as well as three SOI areas that may be served by the District in the future. The demand projections have been based on ultimate build-out conditions, which for purposes of this report are assumed to be reached by 2030.

<b>Table 12a. Past, Current, and Projected Water Accounts</b>							
<b>Water Use Sectors</b>	<b>2000</b>	<b>2005</b>	<b>2010</b>	<b>2015</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>
Single family	23,377	23,819	24,097	24,369	24,439	24,439	26,475
Multi-family	996	994	995	995	995	995	995
Commercial	679	675	673	694	705	705	775
Industrial	127	158	160	176	193	209	225
Institutional/Gov	78	76	77	93	101	101	130
Landscape	258	256	256	255	255	255	255
Construction	29	10	9	8	7	6	5
Other (RW)	168	271	295	390	433	460	475
<b>Total (incl. RW)</b>	<b>25,712</b>	<b>26,259</b>	<b>26,562</b>	<b>26,981</b>	<b>27,127</b>	<b>27,169</b>	<b>29,335</b>

<b>Table 12b. Past, Current, and Projected Domestic Water Deliveries - AFY</b>							
<b>Water Use Sectors</b>	<b>2000</b>	<b>2005<sup>a</sup></b>	<b>2010</b>	<b>2015</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>
Single family	16,306	16,184	16,749	16,938	16,986	16,986	18,402
Multi-family	2,316	2,098	2,149	2,149	2,149	2,149	2,149
Commercial	2,121	1,894	2,063	2,127	2,159	2,159	2,374
Industrial	523	461	1,376	1,515	1,654	1,793	1,932
Institutional/Gov	639	525	677	817	892	892	1,143
Landscape	1,402	1,046	1,074	1,072	1,072	1,072	1,072
Construction/other <sup>b</sup>	432	175	100	100	100	100	100
<b>Total Domestic</b>	<b>23,739</b>	<b>22,383</b>	<b>24,187</b>	<b>24,716</b>	<b>25,011</b>	<b>25,150</b>	<b>27,171</b>

a) Based on total metered sales for CY 2004; actual 2005 domestic deliveries assumed comparable.

b) Includes domestic water used for RW make-up.

Historic, current, and projected water sales to other agencies (SWS, RWD, and City of Covina) are provided in Table 13. Future sales to neighboring agencies are not anticipated or incorporated in the District's current plans.

<b>Table 13. Sales to Other Agencies – AFY</b>							
<b>Water Distributed</b>	<b>2000</b>	<b>2005</b>	<b>2010</b>	<b>2015</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>
Suburban Water Systems	610	3,505	0	0	0	0	0
So. California Water Co	0	0	0	0	0	0	0
Valencia Heights Water Co	0	0	0	0	0	0	0
Rowland Water District	350	17	0	0	0	0	0
City of West Covina	197	0	0	0	0	0	0
<b>Total</b>	<b>1,157</b>	<b>3,522</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

Additional water uses and un-accounted for system losses are listed in Table 14. Recycled water use is addressed in Chapter 5. Projected system losses, currently amounting to 4.5 percent of total water deliveries, are projected for future years on a basis of 6.4 percent of total water deliveries.

<b>Table 14. Additional Water Uses and Losses - AFY</b>							
<b>Water Use</b>	<b>2000</b>	<b>2005</b>	<b>2010</b>	<b>2015</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>
Groundwater Recharge	0	0	0	0	0	0	0
Recycled Water	1,767	1,747	2,915	3,860	4,280	4,550	4,700
Other Uses <sup>a</sup>	0	0	0	0	0	0	0
System Losses	1,128	1,528	1,651	1,687	1,707	1,717	1,855
<b>Total</b>	<b>2,895</b>	<b>3,275</b>	<b>4,566</b>	<b>5,547</b>	<b>5,987</b>	<b>6,267</b>	<b>6,555</b>

a) Inclusive of saline barriers, conjunctive use, raw water and other potential water uses.

Past, current, and projected total water use for the District, the sum of deliveries by customer category type (Table 12), sales to other agencies (Table 13), and all additional water uses (Table 14), are presented in Table 15. Total water use (potable and non-potable) within the District is projected to increase by 22 percent (5,758 AFY) above present amounts over the next 20 years. Approximately 55 percent of total additional use will be met from imported sources (3,186 AFY) while the remaining 2,572 AFY will be from the District's recycled water supplies.

<b>Table 15. Total Water Use - AFY</b>							
<b>Water Use</b>	<b>2000</b>	<b>2005<sup>a</sup></b>	<b>2010</b>	<b>2015</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>
Domestic Water Deliveries <sup>b</sup>	23,438	22,383	24,187	24,716	25,011	25,150	27,171
Sales to Other Agencies <sup>c</sup>	1,157	3,522	0	0	0	0	0
Additional Uses & Losses <sup>d</sup>	2,895	3,275	4,566	5,547	5,987	6,267	6,555
<b>Total</b>	<b>27,490</b>	<b>29,180</b>	<b>28,754</b>	<b>30,264</b>	<b>30,999</b>	<b>31,417</b>	<b>33,726</b>

- a) Actual values for CY2004; CY2005 quantities are expected to be equivalent based on analysis of records to date.
- b) Total imported water sold within District's service area for domestic uses, per Table 12b.
- c) Water sales to all other agencies from Table 13.
- d) Non-potable (recycled) water uses and unaccounted-for potable water system losses from Table 14.

## **CHAPTER 3 DEMAND MANAGEMENT MEASURE IMPLEMENTATION**

*Subsections 10631 (f) through (k) of the Water Code require that a supplier's UWMP shall provide:*

- f) a description of each water demand management measure underway or scheduled for implementation,*
- g) evaluation of each measure not currently being implemented or scheduled for implementation,*
- h) description of all planned water supply projects and programs,*
- i) description of desalinated water opportunities,*
- j) demand projections provided to the wholesaler, and*
- k) water supply reliability information provided by the wholesaler.*

These Water Code requisites are addressed below.

The Demand Management Measures (DMM) described herein for the District are functionally equivalent to the 14 Best Management Practices (BMPs) in Water Code 10631 that are intended to reduce long-term urban water demands and as listed in the California Urban Water Conservation Council (CUWCC) Annual Reports.

### **3.1 Water Conservation Program** *{Water Code Subsection 10631(f)}*

The District is committed to implementing water conservation and water recycling programs that result in a reduction in water demands while also increasing the public's awareness of conserving this precious resource. This chapter discusses water conservation program plans and accomplishments to date, whereas Chapter 5 provides detailed information about the District's water recycling program.

The District is a signatory to the September 1991 Memorandum of Understanding regarding Urban Water Conservation in California (and amended thereafter) and is also an active member of the California Urban Water Conservation Council (CUWCC). Signatories must submit annual reports to the CUWCC outlining progress towards implementing the Best Management Practices (BMPs). The District submitted its first annual report to the CUWCC in September 1992 and has promptly submitted subsequent reports. On October 31, 2005, District staff submitted the 2004 BMP Report and the 2005 BMP Report to the CUWCC through their reporting web site. Copies of these reports, which satisfy portions of the UWMP, are included in Appendix E.

### **3.2 Evaluation of Demand Management Measures Not Implemented** *{Water Code Subsection 10631(g)}*

The District filed an exemption with the CUWCC for BMP 1 in 2004. Exemptions do not show on the BMP reports until CUWCC staff has had time to review and approve each exemption request, which contains a cost-effectiveness analysis. The final results of the cost-effectiveness analysis filed with the CUWCC on November 29, 2004 are included in Table 16a. A Cost-

Effectiveness Summary for BMP 1 is provided in Table 16b. Although an exemption request was previously filed for BMP 2 in 2002, no exemption request was filed in 2004 as the District believes that 75% of its single-family residences and 75% of its multi-family units constructed prior to 1992 are fitted with high-quality, low-flow showerheads. The District is now using its Geographic Information System (GIS) to calculate irrigated landscape areas so it can develop water use budgets for BMP 5. Appendix B contains further information regarding BMP implementation and those measures not fully implemented.

<b>Table 16a. Evaluation of Non-Implemented Demand Management Measures</b>	
<b>Demand Management Measure</b>	<b>Cost \$/AF</b>
BMP 1 Agency Perspective	1,660
BMP 1 Society Perspective	1,707

The benefit-cost ratios, both for agency and society, associated with BMP 1 show that it is not cost-effective for the District to implement a residential survey program targeting high water use homes.

<b>Table 16b. Cost-Effectiveness Summary</b>		
<b>Cost-Effectiveness Parameter</b>	<b>BMP 1</b>	
	<b>Agency</b>	<b>Society</b>
Total Present Value Costs, \$	258,147	270,118
Total Present Value Benefits, \$	80,153	118,773
Discount Rate, %	3.70	2.10
Time Horizon, years	25	25
Simple Unit Supply Cost, \$/AF	1,593	1,667
Discounted Supply Cost, \$/AF	1,660	1,707
Water Savings, AF	162.0	162.0
Benefit-Cost Ratio	0.31	0.44

### 3.3.1 Planned Supply Projects and Programs *{Water Code Subsection 10631(h)}*

The District is currently in the process of expanding its recycled water system infrastructure, including the addition of three new well projects. Use of local groundwater supplies as a supplemental source for meeting the District's recycled water demands offsets the need for additional imported water. Current annual groundwater yield for recycled water use is in the 300 to 400 AF range. With completion of the additional well units, annual yield is expected to reach 1,400 AFY within the next 5 years. As local groundwater supplies are unaffected by single or multiple year droughts, potential yields are expected to be the same as expressed for normal years. The District's future local water supply projects are presented in Table 17.

Table 17. Future Planned Water Supply Projects							
Project Name	Projected		Normal Year Yield AF	Single Dry Year Yield, AF	Multiple Dry Years, AF		
	Start Date	Completion Date			Year (1)	Year (2)	Year (3)
Valley Blvd. Well (RW #4)	Jun-05	Jun-06	300	215	215	215	215
Grand Crossing Well (RW #5)	2006	mid-2007	350	250	250	250	250
Lanterman Well (RW #6)	2006	late-2007	265	190	190	190	190

### 3.4 Development of Desalinated Water {Water Code Subsection 10631(i)}

The District's service area does not overlie any brackish groundwater basins and the District has not identified any potentially cost-effective desalination opportunities. However, the District is currently utilizing impaired groundwater (high in total dissolved solids) from the Puente Basin for its recycled water system as identified in Table 6 of Chapter 2.

The regional suppliers are evaluating a number of specific water desalination opportunities throughout Southern California that have been conceptually identified and discussed in various water management plans and documents. As many of these opportunities are yet in the formative stage, no attempt has been made by the District to express potential yields or start dates in Table 18.

Table 18. Opportunities for Desalinated Water				
Sources of Water	Yield AFY	Start Date	Type of Use	Other
Ocean Water	a	a	PW	unknown
Brackish Ocean Water	a	a	PW	unknown
Brackish Groundwater	a	a	PW	unknown
Impaired Groundwater	a	a	RW	unknown
Other	a	a	a	unknown

a) Desalination projects pertaining to these regional water supply sources are currently in the conceptual planning phase; potential yields and start dates are yet to be defined

### 3.5 Wholesale Water Supply {Water Code Subsection 10631(k)}

The amount of water the District wishes to purchase from its wholesale provider, TVMWD, over the next 25 years, expressed in five-year increments, is provided in Table 19.

Table 19. District Demand Projections Provided to Wholesale Supplier – AFY					
Wholesaler	2010	2015	2020	2025	2030
TVMWD	25,739	26,302	26,616	26,764	28,914

The amount of water available through TVMWD, the District's sole wholesale provider, for the next 25 years, expressed in five-year increments, is presented in Table 20. The projected quantities expected to be available in normal water years have been pro-rated for the District based on projected wholesale deliveries presented in Table 19 for service area demands through 2030.

<b>Wholesaler Sources</b>	<b>2010</b>	<b>2015</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>
Existing TVMWD Supply	33,400	31,983	33,810	32,166	32,845
Planned TVMWD Supply	563	2,288	2,488	2,358	2,400
Total Available TVMWD Supply	33,962	34,270	36,298	34,524	35,245

Projected reliability of the above wholesale supplies, including local groundwater sources, which are expected to be available during normal, single- and multiple-dry water years are provided in Table 21. Values are expressed as a percentage of normal water year supply quantities available to the District as provided in Table 20.

<b>TVMWD</b>	<b>Projected Reliability</b>				
	<b>2010</b>	<b>2015</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>
Normal Year Supply	100	100	100	100	100
Single Dry Year Supply (1977)	104	109	100	99	99
Multiple Dry Years Supply (1990-1992)	96	101	93	92	92

The District’s regional wholesale provider anticipates that the mix of future imported and local water supplies during the next 20 years will remain available on a consistent basis. The relative availability or risk of inconsistency associated with each factor for the supply sources involved is expressed in qualitative terms in Table 22 as they were in the previous chapter in Table 10. The underlying premise involved is that wholesale supply deficits are not anticipated, irrespective of inconsistencies in individual supply sources, because of the diversity, flexibility, and regional storage capacity involved.

<b>Name of Supply</b>	<b>Legal</b>	<b>Environmental</b>	<b>Climatic</b>	<b>Water Quality</b>
Colorado River	Slight	Moderate	Moderate	Moderate
California Aqueduct	Slight	Moderate	Moderate	Moderate
In-Basin Storage	Slight	Slight	Slight	Substantial
Alternative Sources <sup>a</sup>	Moderate	Moderate	Slight	Moderate

a) Includes water transfers, exchanges, recycling and desalination plus water-use efficiency (DMM/BMP) measures.

## CHAPTER 4 WATER SHORTAGE CONTINGENCY PLAN

*Section 10632 of the Water Code requires that a supplier's UWMP shall provide an urban water shortage contingency analysis each of the following elements:*

- a) stages of action,*
- b) estimated minimum water supply available during each of the next three years,*
- c) preparation of actions to be undertaken for a possible catastrophe,*
- d) additional, mandatory prohibitions, e) penalties and f) consumption reduction methods against specific water use practices,*
- g) analysis of each of the actions, conditions and measures (in a through f ) in terms of impact on revenues and expenditures,*
- h) a draft water shortage contingency resolution or ordinance, and*
- i) a mechanism for determining actual reductions in water use.*

These Water Code requisites are addressed below.

### 4.1 Water Rationing Plan {Water Code Subsection 10632(a)}

Effectively managing valuable water supplies is a requirement of all water agencies and this responsibility becomes increasingly important during times of drought. Procedures described in this chapter are designed to reduce water usage during an extended water shortage emergency.

To reduce demands on imported sources during droughts, MWD established the Incremental Interruption and Conservation Plan (IICP) in 1990 with both voluntary and mandatory stages of action. Mandatory provisions of the IICP became effective in 1991 and the District responded by imposing a drought surcharge on all excess water use. Although these mandatory provisions are no longer applicable, they prompted the District to implement a water-rationing plan that was equitable for its diversified customer base. Table 23 lists the District's current rationing stages that are triggered by MWD and TVMWD taking action to reduce water demands. A surcharge for each rationing stage, determined prior to implementation, would increase with each stage. As MWD has recently modified its rate structure through a strategic planning process, the District's surcharge plan may undergo further revision or modification.

Table 23. Water Supply Shortage Stages and Conditions		
Stage No. <sup>a</sup>	Water Supply Conditions	Percent Shortage
1	Drought Rationing	Up to 10 %
2	Drought Rationing	10-20 %
3	Drought Rationing	20-30 %
4 (Final)	Drought Rationing	Over 30 %

a) Drought surcharge will increase with each rationing stage

Under provisions of the four-stage water rationing plan, a tiered drought surcharge is imposed on customers exceeding their water use allotment, which has been established for various account

classifications based on average water use history. For residential accounts the average water use is based on a neighborhood average in each billing area for a similar period in the base year. The District feels this method is equitable since it compares like areas, which have homes similar in type, size, landscape sophistication, and economic location and will not penalize those customers who have been practicing conservation. Average water use for other classifications is based on recorded water use for a similar period in the base year. All conservation goals are subject to appeal using an established appeal process, as described in Appendix C. All water used from temporary construction meters is also subject to the corresponding drought surcharge during a declared water rationing stage. Appendix A contains mandatory conservation measures and enforcement procedures that will be utilized during any water rationing condition.

#### 4.2 Minimum 3-Year Supply Estimate *{Water Code Subsection 10632(b)}*

The estimated minimum water supply quantities available to the District over the next three years are provided in Table 24 along with normal water year supplies available from each source. It is not believed the District will have to implement the aforementioned water rationing plan within the foreseeable future as the regional importer (MWD) and wholesaler (TVMWD) have not identified specific water supply deficiencies.

<b>Table 24. Three-Year Estimated Minimum Water Supply - AFY</b>				
<b>Source</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>Normal</b>
Through TVMWD	37,970	37,970	37,970	38,500
Local Groundwater	500	500	500	500
LACSD (Recycled Water)	2,550	2,550	2,550	2,550
<b>Total</b>	<b>41,020</b>	<b>41,020</b>	<b>41,020</b>	<b>41,550</b>

#### 4.3 Catastrophic Interruption *{Water Code Subsection 10632(c)}*

In conjunction with its Vulnerability Assessment, the District has a list of actions to be taken in the event of a catastrophe. General priority actions that the District will take in such emergencies are as follows:

- Acts to protect life
- Preservation of water in storage to the extent possible
- Isolation of damaged service areas and establishment of repair work priorities.

Table 25 lists the actions to be taken for various catastrophic events that could adversely affect water system service and operations.

Table 25. Preparation Actions for a Catastrophe	
Possible Catastrophic Event	Summary of Actions
Regional Power Outage	Implement ERP <sup>a</sup>
Earthquake	Implement ERP <sup>a</sup>
Delivery System Failure	Implement ERP <sup>a</sup>
Other <sup>b</sup>	Implement ERP <sup>a</sup>

a) Specific confidential actions are listed in the District's Emergency Response Plan

b) Includes structural failure, communications outage, contamination, and/or other wide-spread system disruption from flood, fire, or terrorist attack.

#### 4.4 Prohibitions, Penalties, and Consumption Reduction Methods {Water Code Subsection 10632(d)-(f)}

The District has previously implemented mandatory prohibitions for use during various water shortage conditions. Examples of such prohibitions and the mandatory prohibitions stage are presented in Table 26.

Table 26. Mandatory Prohibitions	
Examples	Stage When Mandatory
Hosing down driveways, sidewalks, buildings, etc.	1-4
Hose left running while washing motor vehicles	1-4
Landscape watering more than every other day and between the hours of 10 a.m. and 4 p.m.	1-4
Irrigation system runoff	1-4
Potable water use for construction purposes or street cleaning	4

Specific water consumption reduction methods involving surcharges on all use over allocated average water use for each customer type by stage and projected reduction in use for the District are presented in Table 27a.

Table 27a. Consumption Reduction Methods		
Method	Stage Method Takes Effect	Projected Reduction (%)
Surcharge on all use > than average allocation of:		
90% Residential and Irrigation, 95% CII <sup>a</sup>	1	10%
80% Residential and Irrigation, 85% CII <sup>a</sup>	2	20%
70% Residential and Irrigation, 85% CII <sup>a</sup>	3	30%
50% Residential, 70% Irrigation, 80% Commercial/Industrial and 85% Institutional	4	50%

a) CII - Commercial, industrial and institutional customers.

#### 4.4.1 Water Use Allocations for Reduction in Consumption

In allocating available water, the District's key concern is for public health and safety, including necessary water use within the home. Based on data from a Residential End Uses of Water Study, the District estimates that 50 gallons per capita per day (gpcd) would suffice for essential interior water use with a combination of habit and plumbing fixture changes. However, to provide an achievable goal of per capita water use within the District, a value of 67.8 gpcd has been established as the allowable minimum for public health and safety requirements in the allotment calculations.

Table 27b shows the approximate percentage reduction of water use for each customer type needed to meet the overall demand reduction goal for each rationing stage. From this table it's evident that much of the residential water is currently used outside the home for irrigation of existing landscaping. A Stage 4 level requires a 50-60 percent reduction in residential water use, giving residents an allotment that is within acceptable health and safety limits.

<b>Activity Type</b>	<b>Stage 1</b>	<b>Stage 2</b>	<b>Stage 3</b>	<b>Stage 4</b>
Residential	10-15%	20-25%	30-35%	50-60%
Commercial/Industrial	5%	15%	15%	20%
Institutional	5%	15%	15%	15%
Irrigation	10%	20%	30%	30%
Construction	20%	30%	50%	100%

The next priority for water use relates to commercial and industrial activities. To maintain jobs and to keep from drastically upsetting the area's economic base, the District reduced the impact on local businesses by using smaller percentage reductions than those established as an overall goal. The initial stage only requires a five percent reduction in water use but steps up to a 20 percent reduction at the Stage 4 rationing level.

There is an increased need for education and public information meetings during an extended drought and this places an added burden on governmental facilities. For this reason, the District has allocated small percentage reductions for institutional activities at schools, libraries, and city halls. In general, the water use needs for institutional customers is considered to be similar to those required for local businesses. The first stage begins with a five percent reduction in water use, which steps up to a 15 percent reduction in institutional water use for Stage 4.

Water used for irrigation purposes is considered to be a low priority during a water supply emergency. The initial stage requires a 10 percent reduction in water use that ramps up to a 30 percent reduction in use for Stage 4.

Lastly, potable water used for grading or other construction activities is considered the lowest priority. The first drought stage requires a 20 percent construction water use reduction. Stage 2 requires a 30 percent reduction in water use, increasing to a 50 percent reduction for a Stage 3 level. No potable water is allowed for construction-related activities during a Stage 4 rationing

level. Recycled water can be expected, however, to remain available for construction purposes during a Stage 4 rationing level.

Penalties and charges for violation of the above water shortage prohibitions that can be levied by the District are listed in Table 28.

<b>Table 28. Penalties and Charges</b>		
<b>Notice</b>	<b>Penalty or Charge</b>	<b>Stage <sup>a</sup></b>
First Violation	Notice of Non-Compliance	1-4
Second Violation	50% Surcharge of most recent water bill	1-4
Failure or refusal to comply	Installation of flow restriction device and/or shutoff of service	1-4

a) Rationing stage when penalty or charge takes effect

#### **4.5 Revenue Impact Analysis {Water Code Subsection 10632(g)}**

A cursory analysis of how the District’s water shortage contingency measures might impact annual revenues and expenditures as well as mitigation steps is provided in the following subsections.

##### **4.5.1 Water Shortage Revenue Impacts**

The District performed an analysis to determine the impact of reduced water sales for each of the rationing stages, including a 50 percent reduction during a Stage 4 rationing level. Even during a Stage 4 situation, the District may not have sufficient revenues to cover expenditures, including new staff, computer program modifications, billing changes, and advertising costs. If necessary, the District will implement a drought surcharge to reduce water use and/or to offset any increase in purchased water.

The District’s proposed measures to overcome revenue impacts during a Stage 4 rationing event are presented in Table 29. The reduction in revenues is based on potable water use reduction information contained in Table 27b.

<b>Table 29. Proposed Measures to Overcome Revenue Impacts</b>	
<b>Measures</b>	<b>Summary of Effects</b>
Reduced Sales	Potential or possible reduction in revenues are to be offset by implementing a drought surcharge and/or utilization of the District’s rate stabilization fund
Other <sup>a</sup>	N/A

a) Rate adjustments, development of reserves, transmission-and storage related measures are not envisioned.

Proposed measures to overcome expenditure impacts associated with reduced water sales are shown in Table 30. Additional expenditures of \$90,000 per annum have been added during a Stage 4 situation to cover advertising costs and hiring additional staff (new employee) if

necessary. Any additional charges that MWD may impose on the District would be offset with a drought surcharge imposed on District customers.

<b>Table 30. Proposed Measures to Overcome Expenditure Impacts</b>	
<b>Measures</b>	<b>Summary of Effects</b>
Staff	Implementation of a drought surcharge and/or utilization of the rate stabilization fund would be sufficient to cover hiring additional staff, if necessary, to enforce water rationing measures.
Advertising	Implementation of a drought surcharge and/or utilization of the rate stabilization fund would be sufficient to cover additional advertising and mailing costs.

#### **4.5.2 Rate Stabilization Fund**

In order to mitigate the financial impacts of a water shortage, the District has established a rate stabilization fund, which currently has a balance of \$501,281; however, even with this fund, it may be necessary to impose a drought surcharge to prevent excessive revenue losses. Based on previous drought experience, imposition of the drought surcharge in accordance with the aforementioned water shortage contingency plan will more than offset any revenue deficiencies. Surplus drought surcharge funds will be placed in the rate stabilization fund, which can be used for expansion and enhancement of the District's recycled water system. Use of the rate stabilization fund for this type of expansion is justified since it removes demand from the potable water system and provides a measure of drought protection.

Many California water purveyors experiencing water shortages have found that it requires several years for customer use (gallons per capita per day) to return to pre-shortage levels; therefore, after a severe or critical drought it may be necessary for the District to raise its rates to generate sufficient income. At a later date action can be taken to adjust both the base rate and the commodity charge if the rate stabilization fund is nearing depletion.

#### **4.6 Ordinance and Use Monitoring** *{Water Code Subsection 10632(h)-(i)}*

Under normal water supply conditions, production figures are recorded daily and incorporated into both daily and monthly reports. Following each fiscal year-end, reports documenting water supply and demand are produced by the District. The records are maintained by the Production and Storage Supervisor and reviewed by the Director of Operations.

During a drought additional reports are produced and monthly goals are established. The results of the District's drought efforts are summarized by the Director of Operations and presented to the Board of Directors monthly. During a disaster shortage, production figures are reported hourly to the Director of Operations and to the General Manager. This information is then compiled into reports that are presented to the Board of Directors. The mechanisms to be used in determining actual reductions on a weekly and daily basis, as appropriate to the severity of a water shortage, are presented in Table 31.

<b>Table 31. Water Use Monitoring Mechanisms</b>		
<b>Mechanisms <sup>a</sup></b>	<b>Type and Quality of Data Expected</b>	
Normal	Daily/Weekly	Year-end Production/Storage Report
Drought Conditions	Daily	Monthly goals established
Disaster Shortages	Hourly Production	Director of Operations & General Manager <sup>b</sup>

a) Daily production and distribution records backed by increased customer meter readings.

b) Compiled reports also provided to Board of Directors

## CHAPTER 5 RECYCLED WATER PLAN

*Section 10633 of the Water Code requires that a supplier's UWMP shall provide, to the extent available, information on recycled water and its potential for use as a water source within the agency's service area.*

This Water Code requisite is addressed below.

### **5.1 Coordination and History** *{Water Code Subsection 10633}*

The District's recycled water system presently receives recycled water purchased from the LACSD and produced at the Pomona WRP, located near the District's northeasterly boundary. This plant provides tertiary treatment using the following process sequence: primary sedimentation, activated sludge biological treatment, secondary sedimentation, coagulation, inert media filtration, and chlorination. Recycled water from this plant is suitable for landscape irrigation and many other purposes, including process water for commercial and industrial operations and groundwater recharge through other agencies. The District is currently negotiating a contract for the purchase of approximately 3,000 acre-feet per year (AFY) of recycled water produced by this reclamation plant.

Additionally, the District is proceeding with plans to obtain recycled water from the LACSD's San Jose Creek WRP, situated about 10 miles to the west of the District in the City of Whittier. Recycled water at this plant receives tertiary treatment, consisting of inert media filtration and disinfections following activated sludge secondary treatment, and it is suitable for groundwater replenishment, irrigation, and other purposes. The District has been participating with various agencies and water purveyors in the development of a regional recycled water supply project to provide water from the San Jose Creek WRP. On May 16, 2000, the District signed a Memorandum of Understanding, along with other project participants, for the continued development of this regional recycled water supply project. The District, MWD, and TVMWD executed the MWD Local Resources Projects (LRP) agreement in October 2005. Once implemented, this project will not only provide a source of supply of recycled water to the District from the San Jose Creek WRP, but will also allow other project participants to receive water from the Pomona WRP during periods of reduced demands on that source of supply.

This regional project will provide additional supply reliability and allow expansion of the District's recycled water system, offsetting existing potable water demand with non-potable supplies. According to the Recycled Water System Master Plan, the District is expecting to obtain up to 3,600 AFY of recycled water from these two water reclamation plants. A list of agencies that are actively participating and/or observing the District's recycled water activities and planned developments is presented in Table 32.

Table 32. Participating Agencies	
Agency Type/Function	Role in RW Plan Development
<i>Water Agencies:</i>	
Metropolitan Water District of Southern California	Participated
Three Valleys Municipal Water District	Participated
<i>Wastewater Agencies:</i>	
Los Angeles County Sanitation District	Participated
<i>Groundwater Agencies:</i>	
Puente Basin Watermaster	Observed
<i>Planning Agencies:</i>	
City of Diamond Bar	Observed
City of Industry	Observed
City of Walnut	Observed
City of West Covina	Observed
County of Los Angeles	Observed

## 5.2 Wastewater Quantity and Quality {Water Code Subsection 10633(a)-(c)}

The District does not have responsibility for wastewater collection, treatment, or disposal within its service area. The District does hold full responsibility for recycled water delivery (conveyance, storage, and distribution) to all customers within its boundaries.

Wastewater services for the entire region are provided through the LACSD. All wastewater flows from within the District's service area are conveyed via a 60-inch diameter City of Industry interceptor sewer to the 100 mgd capacity San Jose Creek WRP for treatment. Most of the recycled water delivered to the District over the last several decades has been conveyed via the 21-inch diameter North Side Line from the 15 mgd capacity Pomona WRP situated just upstream of the District's eastern boundary. Past, present, and projected wastewater collection and treatment quantities pertaining to the District's service area are presented in Table 33. As shown, the quantities of recycled water available are significantly greater than both the amount of wastewater generated within the District's service area and projected recycled water market demands.

Table 33. Wastewater Collection and Treatment – AFY							
Type of Wastewater	2000	2005	2010	2015	2020	2025	2030
WW collected in service area	11,000	11,400	11,430	11,580	11,730	11,900	12,100
WW treated in service area	0	0	0	0	0	0	0
WW treated upstream <sup>a</sup>	11,470	9,520 <sup>c</sup>	11,500	11,500	11,500	11,500	11,500
WW treated downstream <sup>b</sup>	97,975	93,020 <sup>c</sup>	100,000	103,000	106,000	109,000	112,000
Total meeting RW standard	48,160	49,600	50,000	55,000	60,000	65,000	70,000

a) LACSD Pomona WRP.

b) LACSD San Jose Creek WRP.

c) Pomona and San Jose facilities underwent construction in 2005, resulting in decreased RW production.

The projected quantities of wastewater disposed of (not reused directly) from the two treatment plants affecting the Walnut Valley area are presented in Table 34. It should be noted that other than during the wet weather period, most of this discharge to the river channel from Pomona WRP is recharged to the Central Basin. Unused discharge from the San Jose WRP is directed to the lined portion of the San Gabriel River and is lost to the ocean.

<b>Table 34. Disposal of Wastewater (non-reused) – AFY</b>							
<b>Method of Disposal</b>	<b>Treatment Level</b>	<b>2005</b>	<b>2010</b>	<b>2015</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>
PWRP Discharge	Tertiary	2,000	1,650	1,300	950	600	250
SJCWRP Discharge	Tertiary	61,400	50,000	45,000	40,000	35,000	30,000
<b>Total Discharge</b>	<b>Tertiary</b>	<b>63,400</b>	<b>51,650</b>	<b>46,300</b>	<b>40,950</b>	<b>35,600</b>	<b>30,250</b>

### 5.3 Recycled Water Uses {Water Code Subsection 10633(d)-(g)}

The amounts of recycled water annually delivered to sites served by the District's recycled water system are presented in Table 35. Construction of the original system was completed in 1986 and since that time a large number of customers have been added.

<b>Table 35. Recycled Water Uses - Actual and Potential – AFY</b>							
<b>User Type</b>	<b>Treatment Level</b>	<b>2005</b>	<b>2010</b>	<b>2015</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>
Landscape Irrigation	Tertiary	1,817	2,915	3,860	4,280	4,550	4,550
Industrial <sup>a</sup>	Tertiary	0	0	0	0	0	0
Wildlife Habitat/Wetlands		0	0	0	0	0	0
Agriculture		0	0	0	0	0	0
Groundwater Recharge		0	0	0	0	0	0
Other (SOI) <sup>b</sup>	Tertiary	0	0	0	0	0	150
<b>Total</b>		<b>1,817</b>	<b>2,915</b>	<b>3,860</b>	<b>4,280</b>	<b>4,550</b>	<b>4,700</b>

- a) Process, cooling/heating, air-conditioning, other; exterior use for landscape irrigation included with user type above.
- b) Sphere of Influence areas not currently planned for development til after 2025.

The District's Recycled Water System Master Plan, prepared by CGvL Engineers in 1999, identified potential uses of recycled water and included a financial analysis for the proposed expansion projects. Projected future recycled water use within the District's service area is presented in Table 36.

<b>Table 36. Projected Future Use of Recycled Water in Service Area - AFY</b>					
	<b>2010</b>	<b>2015</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>
Projected Use of Recycled Water	2,915	3,860	4,280	4,550	4,700

Table 37 provides a comparison between the 2000 UWMP projection of recycled water use for 2005 and actual 2005 use (FY04/05) within the District. The 2000 UWMP provided a value of 3,417 AFY for use that actually represents total annual amount available (yield) from local well sources and the Pomona WRP. The projected demand for 2005 was 2,120 AFY, or 62 percent of available supplies. Actual use in 2005, based on FY 04/05 data, amounted to 86 percent of projected use and 53 percent of total available supply.

<b>User type</b>	<b>2000 Projection for 2005</b>	<b>2005 Actual Use</b>
Landscape	3,417 (2,120) <sup>a</sup>	1,817
Wildlife Habitat/Wetlands	0	0
Industrial/Commercial <sup>b</sup>	0	0
Groundwater Recharge	0	0
Agricultural and Other	0	0
<b>Total</b>	<b>2,120</b>	<b>1,817</b>

a) 2000 UWMP demand projection for 2005 was based on 62 percent of total available RW supply

b) Interior processes, cooling, toilets, wash down and other non-potable uses.

#### **5.4 Marketing Methods Encouraging Recycled Water Use**

The District has been delivering recycled water to customers irrigating large landscaped areas for nearly two decades; the communities involved have been supportive of the District's efforts to expand its recycled water system. Customer interest in using recycled water has been generated due in large extent to the following:

- High reliability of recycled water availability during drought conditions
- Nutrient value of recycled water significantly reducing the need for landscape fertilization
- Rate discounted to 85 percent of District's current potable water rate
- Supply exempt from drought surcharge during water shortage emergencies
- Funded installation of recycled water distribution mains, including meter services, using District's rate stabilization fund for areas where businesses have large recycled water demand
- Required installation of separate irrigation meters for all new development where there may be a potential for use of recycled water

For these reasons, additional customers can be expected to connect to the District's recycled water system. The attractive rate results in a quick payback for on-site retrofits. Table 38 lists the various methods currently employed by the District to successfully encourage recycled water use and an estimated amount of projected incremental demand associated with each action. One half of the District's total future recycled water usage is likely to be encouraged through financial incentives.

<b>Actions</b>	<b>2010</b>	<b>2015</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>
Financial Incentives (rate discount and loans)	550	1,020	1,230	1,365	1,440
Technical Support for Retrofitting	106	196	236	262	276
Community Relations/Education	169	314	379	420	444
Other Customer Development Measures/Actions	275	510	615	683	720
<b>Total Incremental Recycled Water Use</b>	<b>1,100</b>	<b>2,040</b>	<b>2,460</b>	<b>2,730</b>	<b>2,880</b>

## CHAPTER 6 WATER QUALITY

*Section 10634 of the Water Code requires that each agency's UWMP shall include information, to the extent practicable, relating to the quality of existing water supply sources available to the supplier in five-year increments over a 20-year period and the manner in which water quality affects water management strategies and supply reliability.*

This Water Code requisite is addressed below.

### 6.1 Water Quality Impacts on Reliability

A non-quantitative indication as to the affects of potential changes in water quality on regional water supply reliability and future water management strategies for the various water sources that comprise the District's overall supply portfolio is provided in Table 39. Insufficient technical information regarding water quality trends, blending scenarios, and proposed regional management strategies is available for either the District or its wholesale provider to prepare a quantitative analysis of percentage changes in future supplies at this time. Water quality issues and impacts on supply continue to be addressed at the regional level.

Table 39. Current and Projected Water Supply Changes Due to Water Quality							
Water Source	Agency	2005	2010	2015	2020	2025	2030
SWP	MWD	Currently being addressed					
Colorado River	MWD	Currently under study					
Groundwater (GW)	TVMWD	Anticipated increase in availability of supply with WQ improvement measures and actions planned within the Spadra and Puente Basins					
Wastewater (RW)	LACSD	Title 22 supplies in excess of projected demands within the Walnut Valley/San Jose Creek areas					
Surface Water (GWR)	TVMWD	Anticipated increase in supply availability with implementation of planned water supply improvement projects					

The District does not anticipate a quantifiable change to the current (2005) and projected water supplies (2010-2030) available for use due to water quality. From the District's perspective, there are no known water quality concerns affecting availability or reliability of local or regional supplies which cannot be mitigated for, if necessary, in the future.

## CHAPTER 7 WATER SUPPLY RELIABILITY

*Section 10635 of the Water Code requires every urban water supplier to include, as part of its UWMP update, a service reliability assessment during normal, dry, and multiple dry water years.*

This Water Code requisite is addressed below. The information contained in this chapter has been provided to each city and county government jurisdiction covering the District’s service area within 30 days of submission to DWR.

### 7.1 Normal Year Projection

Normal water year supplies (Table 40) and use/demand projections (Table 41) for the District’s service area are compared in 5-year increments over the next 25 years in Table 42. Reliance on local water supply sources (groundwater and recycled wastewater) is expected to increase from 6.5 percent (in 2005) to 12.3 percent (by 2025) of the District’s projected total supply over the next 20 years. The District’s projected total water supply by 2025 is expected to represent 94 percent of the current normal water year supply of 41,550 AFY (taken from Table 24) as shown in Table 40.

<b>Table 40. Projected Normal Water Year Supply – AFY</b>					
	<b>2010</b>	<b>2015</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>
Wholesaler Supply	33,962	34,270	36,298	34,524	35,245
Local GW Supply	1,184	1,184	1,184	1,184	1,184
Local RW Supply	1,731	2,676	3,096	3,366	3,516
<b>Total Available Supply</b>	<b>36,877</b>	<b>38,130</b>	<b>40,578</b>	<b>39,074</b>	<b>39,945</b>
% of Normal Water Year	89%	92%	98%	94%	96%

As presented in Table 41, the District’s projected total (potable and non-potable) demand in 2025 for a normal water year of 31,417 AFY represents a 22 percent increase over the current (2005) total water demand of 25,658 AFY.

<b>Table 41. Projected Normal Water Year Demand – AFY</b>					
	<b>2010</b>	<b>2015</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>
District Demand	28,754	30,264	30,999	31,417	33,726
% of Year 2005 Demand	112%	118%	121%	122%	131%

Comparison of the projected supply and demand quantities presented above results in the 5-year surplus (total supply minus total demand) differences for a normal water year presented in Table 42. Available surplus water supply of 9,180 AFY currently exceeds total demand by 36 percent. Projected normal water year surplus supplies are expected to remain well in excess (24% in 2025) of projected total demands throughout the planning period.

<b>Table 42. Projected Normal Water Year Supply and Demand Comparison - AFY</b>					
	<b>2010</b>	<b>2015</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>
Available Supply Totals	36,877	38,130	40,578	39,074	39,945
Demand Totals	28,754	30,264	30,999	31,417	33,726
Difference (Supply-Demand)	8,124	7,867	9,579	7,657	6,219
Difference as % of Supply	22%	21%	24%	20%	16%
Difference as % of Demand	28%	26%	31%	24%	18%

## 7.2 Single Dry Year Projections

Single dry year water supplies (Table 43) and use/demand projections (Table 44) for the District's service area are compared in 5-year increments over the next 25 years in Table 45. The District's projected total water supply available by 2025 for a single dry year of 38,802 AFY shown in Table 43 is expected to represent 99 percent of projected normal year water supply of 39,074 AFY as listed in Table 40.

<b>Table 43. Projected Single Dry Year Water Supply – AFY</b>					
	<b>2010</b>	<b>2015</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>
Wholesaler Supply	35,290	37,522	36,473	34,252	34,954
Local GW Supply	1,184	1,184	1,184	1,184	1,184
Local RW Supply	1,731	2,676	3,096	3,366	3,516
<b>Total Available Supply</b>	<b>38,205</b>	<b>41,382</b>	<b>40,753</b>	<b>38,802</b>	<b>39,654</b>
% of Normal Water Year	104%	109%	100%	99%	99%

As presented in Table 44, the District's projected total (potable and non-potable) demand for a single dry water year reflects a ten percent increase over the District's projected normal water year future demands. This assumption is intended to represent a worst-case scenario, whereby the District's demand management measures and water rationing actions would be entirely unsuccessful over a 12-month period. A projected single dry water year demand in the 5 to 7 percent range above forecasted normal water year use is considered a more probable or likely occurrence.

<b>Table 44. Projected Single Dry Year Water Demand – AFY</b>					
	<b>2010</b>	<b>2015</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>
District Demand	31,629	33,290	34,099	34,559	37,099
% of Projected Normal Year	110%	110%	110%	110%	110%

Comparison of the projected supply and demand quantities presented above results in the 5-year surplus (total supply minus total demand) differences for a single dry water year presented in Table 45. The District's current single dry water year surplus supply of 12,640 AFY exceeds an assumed dry water year demand of 28,380 AFY by 45 percent. Projected single dry water year surplus supplies are expected to remain in excess of assumed single dry water year demands throughout the planning period. The year 2025 single dry year minimum surplus supply of 4,243 AFY represents a 12 percent differential above projected maximum demand.

<b>Table 45. Projected Single Dry Year Supply and Demand Comparison - AFY</b>					
	2010	2015	2020	2025	2030
Available Supply Totals	38,205	41,382	40,753	38,802	39,654
Demand Totals	31,629	33,290	34,099	34,559	37,099
Difference (Supply-Demand)	6,576	8,092	6,654	4,243	2,555
Difference as % of Supply	17%	20%	16%	11%	6%
Difference as % of Demand	21%	24%	20%	12%	7%

### 7.3 Multiple Dry Year Projections

Multiple dry year water supplies (Tables 46, 49, 52, 55, and 58) and water use/demand projections (Table 47, 50, 53, 56 and 59) for the District's service area are compared in five-year increments in Tables 48 (2006-2010), 51 (2011-2115), 54 (2016-2020), 57 (2021-2025) and 60 (2026-2030). Tables 46, 47, and 48 provide available water supply, water demand, and comparison of the District's total multiple dry water year supply and demand projections, respectively, on an annual basis between 2006 and 2010.

<b>Table 46. Projected Multiple Dry Year Water Supply through 2010 - AFY</b>					
	2006	2007	2008	2009	2010
Wholesaler Supply	31,741	31,933	32,125	32,317	32,509
Local GW Supply	797	894	990	1,087	1,184
Local RW Supply	1,306	1,412	1,519	1,625	1,731
<b>Total Available Supply</b>	<b>33,844</b>	<b>34,239</b>	<b>34,634</b>	<b>35,029</b>	<b>35,424</b>
% of Normal Water Year	92%	93%	94%	95%	96%

As presented in Tables 47, 50, 54, and 58, the projected total (potable and non-potable) demand for multiple dry water years reflects an 8 percent increase over the District's projected normal water year demands. This assumption is intended to represent a worst-case scenario, whereby the District's planned demand management measures and water rationing actions would be unsuccessful over a protracted 36-month period. A multiple dry water year demand of 5 to 6 percent above forecasted normal water year use is considered a more probable or likely future occurrence based on historic records.

<b>Table 47. Projected Multiple Dry Year Water Demand through 2010 - AFY</b>					
	2006	2007	2008	2009	2010
District Demand	29,555	29,929	30,304	30,679	31,054
% of Projected Normal Year	108%	108%	108%	108%	108%

<b>Table 48. Projected Multiple Dry Year Supply and Demand Comparison through 2010 - AFY</b>					
	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>
Supply Totals	33,844	34,239	34,634	35,029	35,424
Demand Totals	29,555	29,929	30,304	30,679	31,054
Difference (Supply-Demand)	4,290	4,310	4,330	4,350	4,370
Difference as % of Supply	13%	13%	13%	12%	12%
Difference as % of Demand	15%	14%	14%	14%	14%

Tables 49, 50, and 51 provide multiple dry year water supply, water demand, and comparison of the District's total supply and demand projections, respectively, on an annual basis between 2011 and 2015.

<b>Table 49. Projected Multiple Dry Year Water Supply through 2015 - AFY</b>					
	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
Wholesaler Supply	32,951	33,394	33,836	34,278	34,721
Local GW Supply	1,184	1,184	1,184	1,184	1,184
Local RW Supply	1,920	2,109	2,298	2,487	2,676
<b>Total Available Supply</b>	<b>36,055</b>	<b>36,687</b>	<b>37,318</b>	<b>37,949</b>	<b>38,581</b>
% of Normal Water Year	95%	96%	98%	100%	101%

<b>Table 50 Projected Multiple Dry Year Water Demand through 2015 - AFY</b>					
	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
District Demand	31,380	31,706	32,032	32,359	32,685
% of Projected Normal Year	108%	108%	108%	108%	108%

<b>Table 51 Projected Multiple Dry Year Supply and Demand Comparison through 2015 - AFY</b>					
	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>
Supply Totals	36,055	36,687	37,318	37,949	38,581
Demand Totals	31,380	31,706	32,032	32,359	32,685
Difference (Supply-Demand)	4,675	4,980	5,286	5,591	5,896
Difference as % of Supply	13%	14%	14%	15%	15%
Difference as % of Demand	15%	16%	17%	17%	18%

Tables 52, 53, and 54 provide multiple dry year water supply, water demand, and comparison of the District's total supply and demand projections, respectively, on an annual basis between 2016 and 2020.

<b>Table 52 Projected Multiple Dry Year Water Supply through 2020 - AFY</b>					
	2016	2017	2018	2019	2020
Wholesaler Supply	34,546	34,372	34,197	34,023	33,848
Local GW Supply	1,184	1,184	1,184	1,184	1,184
Local RW Supply	2,760	2,844	2,928	3,012	3,096
<b>Total Available Supply</b>	<b>38,490</b>	<b>38,400</b>	<b>38,309</b>	<b>38,219</b>	<b>38,128</b>
% of Normal Water Year	95%	95%	94%	94%	94%

<b>Table 53. Projected Multiple Dry Year Water Demand through 2020 - AFY</b>					
	2016	2017	2018	2019	2020
District Demand	32,844	33,002	33,161	33,320	33,479
% of Projected Normal Year	108%	108%	108%	108%	108%

<b>Table 54. Projected Multiple Dry Year Supply and Demand Comparison through 2020 - AFY</b>					
	2016	2017	2018	2019	2020
Supply Totals	38,490	38,400	38,309	38,219	38,128
Demand Totals	32,844	33,002	33,161	33,320	33,479
Difference (Supply-Demand)	5,647	5,397	5,148	4,899	4,649
Difference as % of Supply	15%	14%	13%	13%	12%
Difference as % of Demand	17%	16%	16%	15%	14%

Tables 55, 56, and 57 provide multiple dry year water supply, water demand, and comparison of the District's total supply and demand projections, respectively, on an annual basis between 2021 and 2025. Reliance on local water supply sources (groundwater and recycled wastewater) is expected to increase from 6.5 percent (in 2005) to 9.8 percent (by 2025) of the District's projected multiple dry water year total supply as shown in Table 55. By 2025 projected total water supply under multiple dry year conditions is expected to reach 93 percent of the District's normal water year supply. Surplus supply is anticipated to be seven percent above multiple dry year demand by 2025.

<b>Table 55. Projected Multiple Dry Year Water Supply through 2025 – AFY</b>					
	2021	2022	2023	2024	2025
Wholesaler Supply	33,456	33,063	32,671	32,279	31,887
Local GW Supply	1,184	1,184	1,184	1,184	1,184
Local RW Supply	3,150	3,204	3,258	3,312	3,366
<b>Total Available Supply</b>	<b>37,790</b>	<b>37,451</b>	<b>37,113</b>	<b>36,775</b>	<b>36,437</b>
% of Normal Water Year	97%	96%	95%	94%	93%

<b>Table 56. Projected Multiple Dry Year Water Demand through 2025 – AFY</b>					
	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>
District Demand	33,569	33,660	33,750	33,840	33,931
% of Projected Normal Year	108%	108%	108%	108%	108%

<b>Table 57. Projected Multiple Dry Year Supply and Demand Comparison through 2025 - AFY</b>					
	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>
Supply Totals	37,790	37,451	37,113	36,775	36,437
Demand Totals	33,569	33,660	33,750	33,840	33,931
Difference (Supply-Demand)	4,220	3,792	3,363	2,935	2,506
Difference as % of Supply	11%	10%	9%	8%	7%
Difference as % of Demand	13%	11%	10%	9%	7%

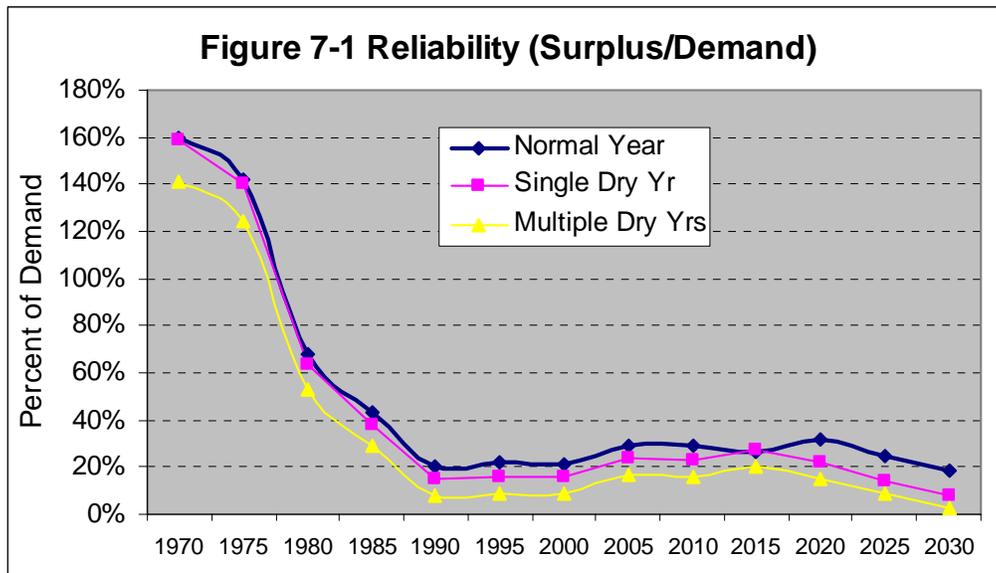
Tables 58, 59, and 60 provide the District’s water supply, water demand, and comparison of total supply and demand projections, respectively, on an annual basis between 2026 and 2030. Surplus supply is projected to represent two percent of multiple year demand by 2030. This long-range projection is predicated on attaining ultimate, or build-out land use, conditions by 2030. Adopted development plans for the SOI areas involved do not, at this time, extend beyond 2025. Land use development and water supply planning for the unincorporated areas adjacent to the District are expected to continue to be coordinated and integrated over the next several decades. Any and all changes will be documented in subsequent UWMP updates.

<b>Table 58. Projected Multiple Dry Year Water Supply through 2030 – AFY</b>					
	<b>2026</b>	<b>2027</b>	<b>2028</b>	<b>2029</b>	<b>2030</b>
Wholesaler Supply	32,014	32,142	32,269	32,397	32,524
Local GW Supply	1,184	1,184	1,184	1,184	1,184
Local RW Supply	3,396	3,426	3,456	3,486	3,516
<b>Total Available Supply</b>	<b>36,594</b>	<b>36,752</b>	<b>36,909</b>	<b>37,067</b>	<b>37,224</b>
% of Normal Water Year	92%	92%	92%	93%	93%

<b>Table 59. Projected Multiple Dry Year Water Demand through 2030 – AFY</b>					
	<b>2026</b>	<b>2027</b>	<b>2028</b>	<b>2029</b>	<b>2030</b>
District Demand	34,429	34,928	35,427	35,926	36,424
% of Projected Normal Year	108%	108%	108%	108%	108%

<b>Table 60. Projected Multiple Dry Year Supply and Demand Comparison through 2030 - AFY</b>					
	<b>2026</b>	<b>2027</b>	<b>2028</b>	<b>2029</b>	<b>2030</b>
Supply Totals	36,594	36,752	36,909	37,067	37,224
Demand Totals	34,429	34,928	35,427	35,926	36,424
Difference (Supply-Demand)	2,165	1,824	1,482	1,141	800
Difference as % of Supply	6%	5%	4%	3%	2%
Difference as % of Demand	6%	5%	4%	3%	2%

A plot of past (1970-2005) and projected (2006-2030) water supply reliability for normal, single, and multiple dry years in surplus of demand available to the District is shown in Figure 7-1. As the District's total (potable plus recycled) water demands are projected to steadily increase while available surplus supplies, as forecasted by the regional wholesaler, decline after 2015, the high reliability percentages (10-30 percent) anticipated over the next 10-15 years are expected to decline thereafter. Reliability of surplus supply over demand is expected to lie within the 10-20 percent range, depending on normal to multiple dry year conditions, through 2025.



#### 7.4 Water Use Efficiency

The estimated amounts of total water conserved by the District are presented in Table 61a for normal, single, and multiple dry water years. These theoretical quantities are based on the following formula: total amount conserved represents the sum of local supply (groundwater and recycled water) plus domestic water use reductions (or minus any increases) from the previous averaged five-year period. The resultant value is an expression of the District's overall (potable and recycled) water use efficiency. Past, current, and projected values are presented over the 30-year period extending from 2000 through 2030.

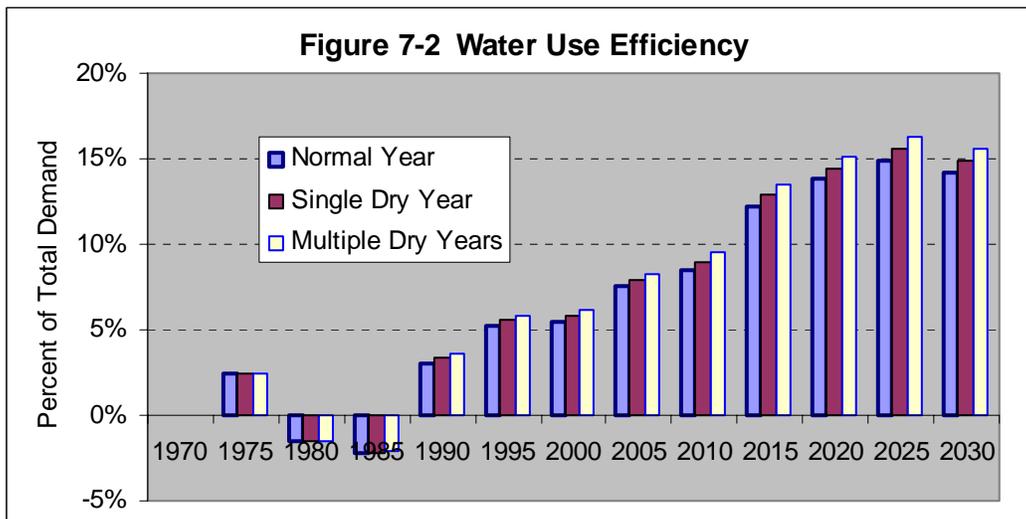
Table 61a. Past, Current, and Projected Water Supply Savings – AFY							
	2000	2005	2010	2015	2020	2025	2030
Normal Water Year	1,395	1,965	2,396	3,685	4,266	4,665	4,777
Single Dry Year	1,484	2,050	2,537	3,875	4,477	4,892	5,012
Multiple Dry Years	1,574	2,136	2,678	4,064	4,689	5,118	5,247

The values are also expressed in terms of percentage efficiencies (annual amount conserved divided by the annual amount required) in Table 61b. Overall annual water savings are expected to increase from the District's current 5-6 percent range to the 14-16 percent range over the next

20 years. Overall, a ten percent improvement in water use efficiency through conservation and increased reliance on local water supply sources is planned.

Table 61b. Past, Current, and Projected Water Use Efficiencies - Percent							
	2000	2005	2010	2015	2020	2025	2030
Normal Water Year	5%	8%	8%	12%	14%	15%	14%
Single Dry Year	6%	8%	9%	13%	14%	16%	15%
Multiple Dry Years	6%	8%	9%	14%	15%	16%	16%

The District’s computed water use efficiencies listed in Table 61b are also shown in Figure 7-2 along with historic values from 1970 through 2000. The trend expected within the District is for continued improvement in water use efficiencies based on increased use of local supplies to meet recycled water demands combined with continued decline in overall unit water consumption affected through successful execution of demand management measures.



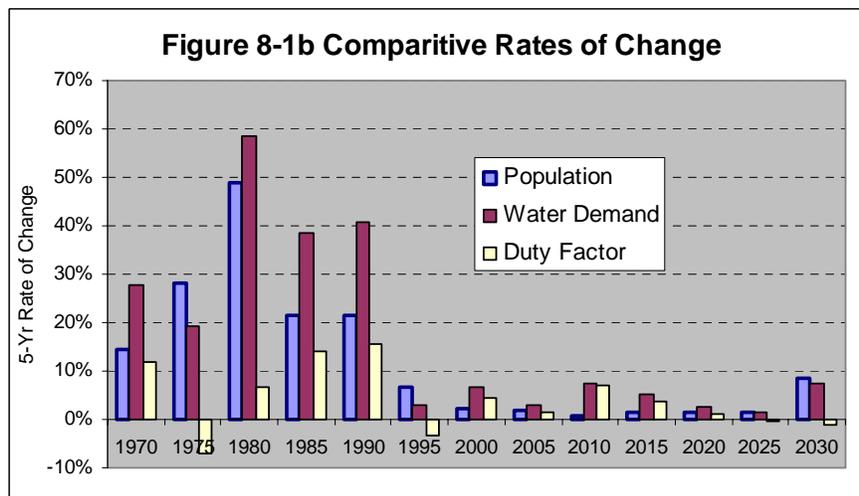
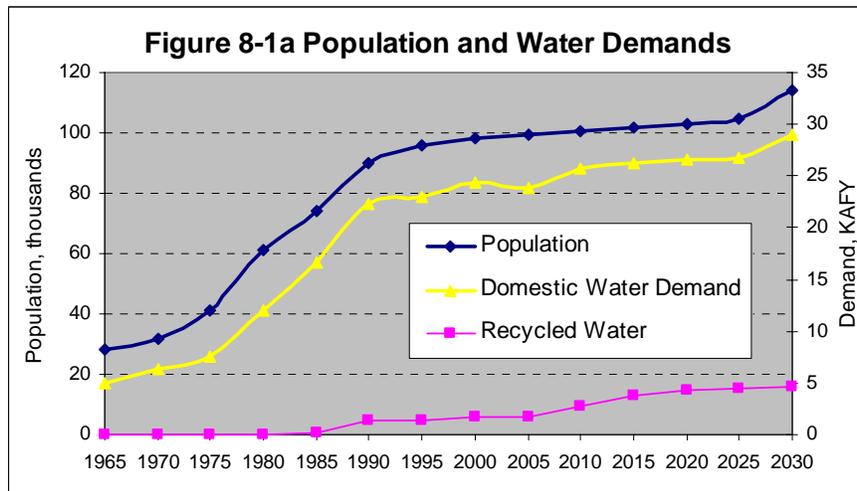
## CHAPTER 8 ADOPTION AND IMPLEMENTATION

*Sections 10640-10645 of the Water Code address specific scheduling and coverage requirements for UWMP review, adoption, and implementation.*

These Water Code requisites plus an executive summary of findings are addressed below.

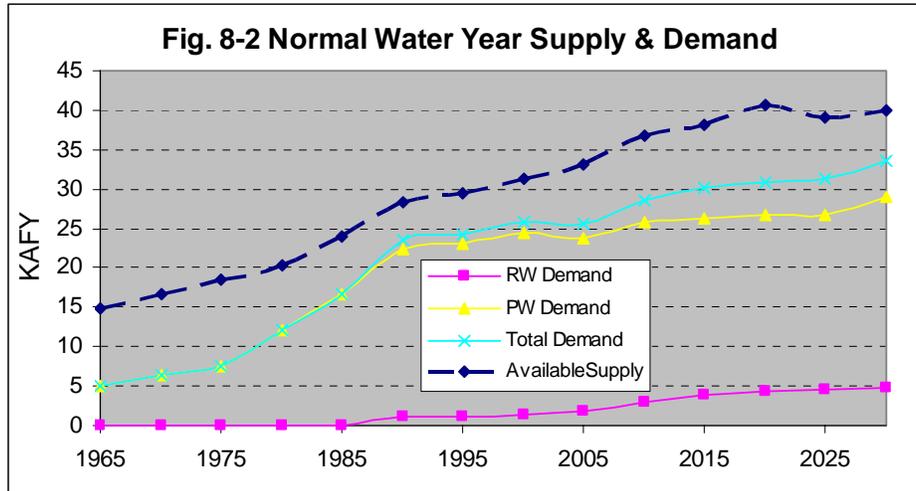
### 8.1 Summary of Findings and Conclusions

The relationship between District service area population and annual water demand is expressed in Figures 8-1a and 8-1b. Figure 8-1a presents absolute values for population, domestic (potable) water demand, and recycled water only. Figure 8-1b provides the same relationships for population served and total water demand (domestic plus recycled) as comparative rates of change over 5-year periods. Also included in the later figure is the computed 5-yr rate of change in the District's overall (domestic plus recycled) water duty factor (i.e., total water use divided by population served). Both figures provide past (1965-2000), current (2005), and projected (2010-2030) values.



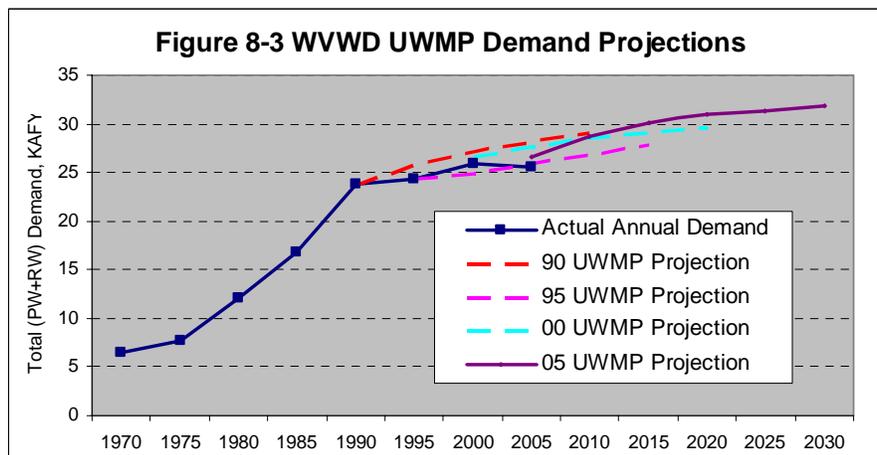
## Comparison of Water Supply and Demand Projections

A plot of the District's past, current, and projected available water supply and demand is provided in Figure 8-2. The quantities expressed are for normal water year conditions. Although overall water supply availability for the District is projected to begin declining after 2020, quantities are forecasted to remain in excess of total demand well beyond the planning horizon. A surplus of 8,000 AFY is projected for normal year conditions in year 2025.



## Comparison with Previous UWMP Projections

The District's 20-year total (potable + non-potable) normal water year demand forecasts provided in prior UWMP reports as well as this update are expressed on Figure 8-3. The rapid growth in water demand experienced between 1975 and 1990 associated with residential and commercial development within the District has been supplanted by steady, stabilized expansion driven by in-fill and densification over the last decade. As the District's service area is nearing land use planning limits, with the exception of several adjacent (SOI) areas, demand projections are not expected to undergo much change.



## **8.2 Resolution of Adoption**

A copy of the Resolution for Adoption of the District's 2005 UWMP is attached in Appendix A.

## **8.3 2000 UWMP Review**

Information regarding implementation of Demand Management Measures (DMM) identified in the District's 2000 UWMP is provided in Appendix B.

## **8.4 CUWCC BMP Annual Reports**

Appendix E contains the District's most recent CUWCC BMP Annual Reports for 2003 and 2004.

## **8.5 2005 UWMP Participation and Distribution**

Table 1, presented in Chapter 1, provides a synopsis of agency participation and coordination regarding preparation, distribution, and review of the District's 2005 UWMP. This update was submitted to the California Department of Water Resources within 30 days of approval by the District's Board of Directors. Copies of the District's 2005 UWMP were sent to cities within the District's service area, the County of Los Angeles, the California State Library, and were made available to the public within 30 days following Board approval.

**APPENDIX A  
DISTRICT RESOLUTIONS**

- 2005 Urban Water Management Plan Adoption Resolution
- Resolution No. 1-91-149 Establishing Conservation Incentive Water Rates
- Resolution No. 1-91-150 Establishing Water Conservation Regulations
- Resolution No. 3-91-155 Setting Water Conservation Goal at 30%
- Resolution No. 4-91-157 Establishing Mandatory Water Conservation Measures to Mitigate Effects of the 1991 Drought

**RESOLUTION NO. 12-05-511**

**RESOLUTION OF THE BOARD OF DIRECTORS  
OF THE WALNUT VALLEY WATER DISTRICT  
ADOPTING THE URBAN WATER MANAGEMENT PLAN**

**WHEREAS**, the California Urban Water Management Planning Act (Water Code Sections 10610 et seq.; the “Act”) mandates that every urban water supplier providing municipal water, directly or indirectly, to more than 3,000 consumers or supplying more than 3,000 acre-feet of water annually develop an Urban Water Management Plan, the primary objective of which is to plan for the conservation and efficient use of water; and

**WHEREAS**, the Act mandates that said Plan be filed with the California Department of Water Resources; and

**WHEREAS**, the Walnut Valley Water District is an urban supplier of water to more than 25,000 consumers and has, therefore, prepared and made available for public review a Draft Urban Water Management Plan in compliance with the requirements of the Act; and

**WHEREAS**, the Walnut Valley Water District held a properly noticed public hearing regarding said Draft Plan on December 20, 2005, and adopted a final Urban Water Management Plan;

**NOW, THEREFORE, BE IT RESOVED by the Board of Directors of the Walnut Valley Water District as follows:**

- (1) The 2005 Urban Water Management Plan is hereby adopted; and
- (2) The General Manager is hereby authorized and directed to file this Plan with the California Department of Water Resources; and
- (3) The General Manager is hereby granted the authority to declare, when required by conditions contained in the Plan, a Water Shortage Emergency and implement this Plan; and
- (4) The General Manager shall recommend additional procedures, rules, and regulations to the Board of Directors to carry out effective and equitable allocation of water resources during a water shortage.

**PASSED AND ADOPTED** at a regular meeting of the Board of Directors of the Walnut Valley Water District held on December 20, 2005.

/S/ Edwin M. Hilden  
President

**ATTEST:**

/S/ Karen Powers  
Secretary

The undersigned, JO ANN ANGELICO, does hereby certify and declare that she is the duly appointed, qualified, and acting Assistant Secretary of Walnut Valley Water District; that the foregoing is a full, true, and complete copy of Resolution No. 12-05-511 of the Board of Directors of Walnut Valley Water District, as adopted by said Board of Directors at a regular meeting thereof, duly convened and held on the 20<sup>th</sup> day of December, 2005; that a quorum of Directors was present at all times at said meeting and voted in favor of said resolution; and that said resolution has not been altered, amended, or rescinded and is still in full force and effect.

Dated: December 21, 2005



  
Assistant Secretary  
Walnut Valley Water District

## RESOLUTION NO. 1-91-149

RESOLUTION OF THE BOARD OF DIRECTORS OF  
WALNUT VALLEY WATER DISTRICT  
ESTABLISHING CONSERVATION INCENTIVE  
WATER RATES

THE BOARD OF DIRECTORS OF THE WALNUT VALLEY WATER DISTRICT hereby finds as follows:

A. The State of California has experienced four consecutive years of drought, and surface water supplies for importation into southern California are limited.

B. Sources of imported water to the Walnut Valley Water District are obtained from the Three Valleys Municipal Water District.

C. The Three Valleys Municipal Water District has adopted an Incremental Interruption and Conservation Plan which establishes water rate incentives and disincentives for all water deliveries to their sub-agencies. The Walnut Valley Water District will be affected by these new rates and needs to implement a similar program within its jurisdiction.

D. This Resolution establishes rates to obtain funds which would be required for additional operating expenses should the Three Valleys Municipal Water District impose additional water charges for water delivered to the District should the conservation goals not be met.

NOW THEREFORE BE IT RESOLVED by the Board of Directors of the Walnut Valley Water District as follows:

Section 1. BASE WATER USE - A base water use shall be established for each residential, commercial and industrial consumer of the Walnut Valley Water District corresponding to the amount of water delivered to that consumer during Metropolitan Water District's designated base water year of July 1989 to June 1990.

Section 2. RATE FOR EXCESS USED - Water consumption by a consumer which is in excess of the mean conservation allocation, as described in Section 3, will be charged at a rate of 0.91¢ per 100 cubic feet of water, or fraction thereof, subject to adjustment, in addition to the current base water rate. Any construction water delivered shall be subject to this excess charge.

Section 3. CONSERVATION GOAL - The specified conservation percentage goal of the mean conservation allocation shall correspond and be subject to adjustment based upon the required conservation savings established by the Three Valleys Municipal Water District for each conservation stage imposed by that agency. Three Valleys Municipal Water District will provide written notification with the effective date of implementation to the District of the savings required under each conservation stage within five (5) days of adoption by the Metropolitan Water District of Southern California.

Section 4. BASE AMOUNT ADJUSTMENT GUIDELINES - The General Manager shall establish guidelines for determining if a consumer should be allowed an adjustment of the mean conservation allocation of water considering, (a) the effectiveness of water conservation achieved by the consumer, (b) growth in family members and/or development within the residence or establishment of the consumer, and (c) any other factors which may have impacted the water supply available to the consumer.

Section 5. SEVERABILITY - If any portion of this Resolution is found to be unconstitutional or invalid, the District hereby declares that it would have enacted the remainder of this Resolution regardless of the absence of any such invalid part.

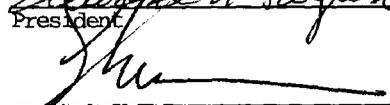
Section 6. EFFECTIVE DATE - This Resolution shall take effect February 1, 1991.

BE IT FURTHER RESOLVED, that the Board of Directors finds that the provisions of this Resolution are exempt from the provisions of the California Environmental Quality Act as an action to mitigate emergency conditions and as a rate setting measure pursuant to Public Resources Code Sections 21080(b)(4) and 21080(b)(8), respectively; and in following with the Notice of Exemption filed by the Metropolitan Water District of Southern California on January 8, 1991, as lead agency for the establishment of water delivery conservation programs for water delivered to the Three Valleys Municipal Water District, and

BE IT FURTHER RESOLVED, that the Board of Directors finds that the provisions of the California Environmental Quality Act (CEQA) do not apply to the matters addressed in this resolution on the further ground that the changes levied pursuant to this resolution are for the purpose of meeting District operating expenses. This finding of non-application of CEQA is made pursuant to Section 18.4 of the District's CEQA Guidelines.

PASSED AND ADOPTED at an adjourned meeting of the Board of Directors held on January 30, 1991, by the following roll call vote:

AYE: Directors Engdahl, Fisher, Gunn,  
Layton and Wentworth  
NO: None  
ABSENT: None

  
\_\_\_\_\_  
President  
  
\_\_\_\_\_  
Secretary

ATTEST:  
  
\_\_\_\_\_  
Secretary

## RESOLUTION NO. 1-91-150

RESOLUTION OF THE BOARD OF DIRECTORS OF  
WALNUT VALLEY WATER DISTRICT  
ESTABLISHING WATER CONSERVATION REGULATIONS

THE BOARD OF DIRECTORS OF THE WALNUT VALLEY WATER DISTRICT hereby finds as follows:

A. The State of California has experienced four consecutive years of drought, and surface water supplies for importation into southern California are limited.

B. Sources of imported water to the Walnut Valley Water District are obtained from the Three Valleys Municipal Water District.

C. The Three Valleys Municipal Water District has adopted an Incremental Interruption and Conservation Plan which establishes water rate incentives and disincentives for all water deliveries to their sub-agencies. The Walnut Valley Water District will be affected by this plan and needs to establish regulations for the use of water by its consumers.

D. This Resolution establishes regulations for water use that will help meet conservation goals set by Three Valleys Municipal Water District.

NOW THEREFORE BE IT RESOLVED by the Board of Directors of the Walnut Valley Water District that no person shall waste water from any source, nor shall any person sanction such waste. No water user shall make, cause, use or permit the use of water in a manner contrary to the following guidelines:

1. There shall be no hose washing of sidewalks, walkways, buildings, walls, patios, driveways, parking areas or other paved surfaces, or walls, except to eliminate conditions dangerous to public health or safety or when required as surface preparation for the application of architectural coating or painting.
2. Washing of motor vehicles, trailers, boats and other types of equipment shall be done only with a hand-held bucket or a hose equipped with a positive shutoff nozzle for quick rinses, except that washing may be done with reclaimed wastewater or by a commercial car wash using recycled water.
3. No water shall be used to clean, fill or maintain levels in decorative fountains, ponds, lakes or other similar aesthetic structures unless such water is part of a recycling system.
4. No restaurant, hotel, cafe, cafeteria or other public place where food is sold, served or offered for sale, shall serve drinking water to any customer unless expressly requested and shall display a notice to that effect.
5. All water users shall promptly repair all leaks from indoor and outdoor plumbing fixtures.
6. No lawn, landscape or other turf area shall be watered more often than every other day nor during the hours between 10:00 a.m. and 4:00 p.m.
7. No water users shall cause or allow the water to run off landscape areas into adjoining streets, sidewalks or other paved areas due to incorrectly directed or maintained sprinklers or excessive watering.
8. The owner and manager of every hotel, motel, inn, guest house, bed and breakfast facility and short-term commercial lodging shall post a notice of such shortage and any necessary compliance measures.
9. Commercial nurseries, golf courses, parks, school yards, landscaped traffic medians and other public open space, and landscaped areas shall be prohibited from watering lawn, landscaping and other turf areas more often than every third day and between the hours of 6:00 a.m. and 6:00 p.m., except that there shall be no restriction on watering utilizing reclaimed water.
10. The use of water from fire hydrants shall be limited to fire fighting and related activities and other uses of water for municipal purposes shall be limited to activities necessary to maintain the public health, safety and welfare.

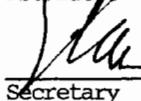
If any portion of this Resolution is found to be unconstitutional or invalid, the District hereby declares that it would have enacted the remainder of this Resolution regardless of the absence of any such invalid part.

This Resolution shall take effect immediately.

PASSED AND ADOPTED at an adjourned meeting of the Board of Directors held on January 30, 1991, by the following roll call vote:

AYE: Directors Engdahl, Fisher, Gunn,  
Layton and Wentworth  
NO: None  
ABSENT: None

  
\_\_\_\_\_  
President

  
\_\_\_\_\_  
Secretary

ATTEST:

  
\_\_\_\_\_  
Secretary

RESOLUTION NO. 3-91-155

RESOLUTION OF THE BOARD OF DIRECTORS OF  
WALNUT VALLEY WATER DISTRICT  
SETTING WATER CONSERVATION GOAL AT 30%

WHEREAS, the Board of Directors of the Walnut Valley Water District adopted Resolution 1-91-149 establishing Conservation Incentive Water Rates, and

WHEREAS, the problem of insufficient water resources within the state continues, greatly diminishing the amount of water available to retail water purveyors, and

WHEREAS, the Three Valleys Municipal Water District has found it necessary to once again reduce local supplies and has set a new conservation goal of 30% for the Walnut Valley Water District, effective April 1, 1991, and

WHEREAS, it is the desire of the District to meet this goal in an effort to avoid severe financial penalties as drought conditions continue,

NOW, THEREFORE, BE IT RESOLVED, that the Board of Directors of the Walnut Valley Water District does hereby establish:

- 1) Effective April 1, 1991, the new conservation goal shall be set at 30%, and
- 2) The penalty established in Resolution 1-91-149 will continue in effect for use reflected in April 1991 billings exceeding the 10% goal, and
- 3) The penalty as set forth in Resolution 1-91-149, shall become effective for all water use reflected in May 1991 billings exceeding the 30% conservation goal.

PASSED AND ADOPTED at a regular meeting of the Board of Directors held on March 21, 1991, by the following roll call vote:

AYE: Directors Fisher, Layton and Wentworth

NO: None

ABSENT: Directors Engdahl and Gunn

  
\_\_\_\_\_  
President

  
\_\_\_\_\_  
Assistant Secretary

ATTEST:

  
\_\_\_\_\_  
Assistant Secretary

RESOLUTION NO. 4-91-157

RESOLUTION OF THE BOARD OF DIRECTORS OF  
WALNUT VALLEY WATER DISTRICT  
FINDING THE NECESSITY OF, AND PROVIDING FOR,  
THE IMPLEMENTATION AND ENFORCEMENT OF  
MANDATORY WATER CONSERVATION MEASURES TO  
MITIGATE EFFECTS OF THE 1991 DROUGHT

WHEREAS, California is in the fifth consecutive year of below normal precipitation, and reduced supplies in storage will cause shortfalls in imported water deliveries to the region unless appropriate conservation measures are implemented; and

WHEREAS, 100% of the District's total water supply, purchased from Three Valleys Municipal Water District, is imported from the Metropolitan Water District of Southern California; and

WHEREAS, the Metropolitan Water District of Southern California and Three Valleys Municipal Water District have adopted Incremental Interruption and Conservation Plans which establish water rate incentives and disincentives for water deliveries to our District; and

WHEREAS, the Three Valleys Municipal Water District and Metropolitan Water District of Southern California have called upon their member agencies and subagencies to comply with their mandatory water conservation programs to mitigate a water supply shortfall and related impacts; and

WHEREAS, the purpose of this Resolution is to minimize the effect of a shortage of water to the consumers of the District and, by means of this Resolution, to adopt provisions that will significantly reduce the consumption of water over an extended period of time, thereby extending the available water required for the consumers of the District while reducing the hardship on the District and the general public to the greatest extent possible; and

WHEREAS, the revenue collected as a result of penalties imposed by this Resolution shall be used for, but not limited to, the administration of this Resolution and District Resolutions 1-91-149 and 1-91-150, the maintenance of the District's water system and all other water conservation efforts, including public education.

NOW THEREFORE, the Board of Directors of the Walnut Valley Water District hereby finds that the violation by any consumer of the water use prohibitions of District Resolution No. 1-91-150 shall be penalized as follows:

- (a) **First Violation--Notice of Non-Compliance.** The General Manager is authorized and directed to issue a written warning notice of non-compliance to any District consumer who, in the judgment of the General Manager, has failed or refused in a significant way to comply with the provisions of the water conservation regulations Resolution No. 1-91-150. Any such warning notice shall specify the time, place and manner of non-compliance and shall specify a reasonable period to achieve compliance. Any warning notice of non-compliance shall be directed to the consumer of record for the premises where the non-compliance was observed. Delivery may be by regular mail or by personal delivery.
- (b) **Second Violation--Fine, Flow Restriction or Water Service Shutoff.**
  - 1) For a second violation by any consumer of the water use curtailment provisions of Resolution 1-91-150, a surcharge shall be imposed in an amount equal to fifty percent (50%) of the consumer's most recent water bill.

- 2) If a water consumer fails or refuses to comply with any of the requirements of a warning notice of non-compliance issued according to sub-section (a), or if the water consumer repeats any infraction noted in a prior warning notice of non-compliance, the General Manager has discretionary authority to provide for a flow-restricting device to be installed at the meter to minimize water availability to the consumer's service address. If installation of a flow restrictor is infeasible, impractical or is unlikely to induce compliance with the water conservation ordinance, the General Manager may authorize a shutoff of service to the premises involved.
- (c) **Referral of Misdemeanor Charges.** When warranted, the General Manager may refer evidence of non-compliance to the District Attorney of Los Angeles County with a request for misdemeanor prosecution as authorized by Water Code Section 377 Et.Seq. Any conviction resulting from a violation of a water conservation program restriction, prohibition or requirement adopted by the District shall be punishable by imprisonment in the County jail for not more than thirty (30) days or by fine not exceeding one thousand dollars (\$1,000) or both.
- (d) The General Manager may delegate his duties and responsibilities under this section as appropriate.
- (e) The General Manager is directed to publish this resolution in a newspaper of general circulation within the District within 10 days after its adoption.

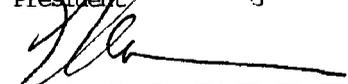
PASSED AND ADOPTED at an adjourned regular meeting of the Board of Directors held on April 25, 1991, by the following roll call vote:

AYE: Directors Engdahl, Fisher, Gunn,  
Layton and Wentworth

NO: None

ABSENT: None

  
\_\_\_\_\_  
President

  
\_\_\_\_\_  
Secretary

ATTEST:

  
\_\_\_\_\_  
Secretary

## **APPENDIX B DISTRICT BEST MANAGEMENT PRACTICES INFORMATION**

### **BMP 1 - Water Survey Programs for Residential Customers**

In the summer of 1994, MWD received proposals from water conservation consulting firms interested in conducting up to 11,000 audits in single-family homes located in the western portion of San Bernardino County and in the eastern portion of Los Angeles County. Following selection of a responsible consultant, participating residents located in this District who were in the top 40 percent water use group were able to receive a comprehensive analysis of their water use in and around the home. The program was first offered to all those in the top 20 percent water-use category and then was later offered to District customers in the 20 to 40 percentile group. The consultant trained a number of technicians who checked for leaks within the home and installed low-flow showerheads, faucet aerators, and toilet tank water displacement devices. Residents with underground irrigation systems also received a "catch can" analysis of their irrigation water use and were provided with a customized irrigation schedule. In 1996, this program provided a total of 1,605 water audits to single-family homes located within this District. The District filed an exemption with the CUWCC for this BMP since it is not cost effective to implement. The District offers free home water use surveys to local residents through its web site and customer information brochure. Although no surveys were performed between 2001 and 2004, District staff did survey 41 homes in 2000 and is currently in the process of surveying several additional homes.

### **BMP 2 - Residential Plumbing Retrofit**

Since 1985 approximately 30,000 retrofit kits have been purchased and distributed to homes within the District's service area. District customers were notified through mass mailing of the availability of the basic kit for toilet leak detection, each of which contained two toilet tank water displacement bags, two shower flow restrictors, and dye tablets. School children were also involved and, through an innovative student network award-winning program, delivered kits door-to-door to every home in the entire city of Walnut. Many District customers have also installed "Frugal Flush" toilet tank flapper valves, and 750 low-flow showerheads were installed in conjunction with other recent programs. In 1996 showerheads, faucet aerators, and other water-saving devices were installed in 1,605 homes in connection with the aforementioned residential water audit program. Soon thereafter, the District participated in the Residential End Uses of Water Study, which contains valuable information that was subsequently published in 1998 by the AWWA Research Foundation. Through the use of Data Loggers installed on existing District meters, the study identified how much water was being used by each plumbing fixture and appliance in the home. Based on this study, the mean showerhead flow rate for residences in the District is 2.09 gallons per minute. The District believes that 75% of its single family residences and 75% of its multiple family residences constructed before 1992 are fitted with high quality, low-flow showerheads.

### **BMP 3 - System Water Audits, Leak Detection, and Repair**

The District's involvement with this type of program extends back to the mid 1980s when it participated in a grant program administered by the California Department of Water Resources. In 1984 the District performed a water audit of its potable water distribution system and in 1985

performed a leak detection survey on approximately 70 miles of buried water mains. Based on a water audit conducted in June 1992, the District was not required to implement a leak detection program due to low unaccounted for water losses. Recent reports submitted to the CUWCC for this BMP show that the District is not losing undesirable amounts of water due to system leakage with unaccounted for water typically running between three and four percent of total production.

#### **BMP 4 - Metering with Commodity Rates for all New Connections**

All District accounts for both the potable and the recycled water systems are presently charged a uniform commodity rate for metered water use. Additionally, implementation of this BPM requires agencies to identify disincentives or barriers to retrofitting mixed use commercial accounts with dedicated landscape meters and conduct a feasibility study to assess the merits of a program that provides incentives to switch mixed use accounts to dedicated landscape meters. The District plans to complete the additional requirements of this BMP by the end of this reporting period.

#### **BMP 5 - Large Landscape Conservation Programs and Incentives**

The District's involvement with this BMP extends back to 1996 when its consultant performed landscape water use surveys at eight local schools. A written report with recommendations suggesting methods to reduce water use was prepared for each school. Moreover, the District freely distributes landscape water use efficiency information and local landscape managers periodically receive free bilingual landscape training courses held at TVMWD in Claremont. Using GIS data that was recently obtained for the purpose of identifying irrigated areas, the District has begun the process of establishing water use budgets for all dedicated irrigation accounts. Additionally, the District will be implementing a strategy to offer large landscape water use surveys to CII accounts.

#### **BMP 6 - High-Efficiency Washing Machine Rebate Programs**

District customers are eligible to receive a \$100 rebate from MWD when they purchase and install an energy efficient clothes washer. This program has resulted in the replacement of 460 inefficient clothes washers since inception in 2002.

#### **BMP 7 - Public Information Programs**

Over the last 25 years, a number of public education programs have been successfully implemented in the District's service area. These programs have concentrated on water awareness and distributing water conservation information to new and existing customers with the goal of reducing water consumption. All new customers are provided with an information packet, which includes individual water conservation hints, landscaping suggestions, and other valuable information. Each month existing customers receive the District's newsletter entitled *Water Line* or bill stuffers that contain an abundance of useful information designed to educate customers on water-related issues and the importance of water conservation. District water bills provide additional customer information by comparing water use for the latest billing period with the customer's use for the same period during the prior year and setting a conservation goal for the next billing period. The bill also contains a statement advising customers whether or not they have achieved their conservation goal, using a voluntary ten percent reduction in use from a base year.

### **BMP 8 - School Education Programs**

Approximately 2,200 fourth through sixth grade students were reached in the 1970s with a program of handouts, films, and other materials emphasizing water conservation. Each year the District reaches about 200 high school students with its essay contest and 2,500 elementary grade students with a popular program consisting of professional plays performed by The National Theatre for Children, workbooks, handouts, and videos, all of which are favorably received. These extensive educational programs have effectively promoted water conservation through increased knowledge of the subject. Annually, the District sponsors a poster contest wherein upper elementary grade students submit posters for possible inclusion in MWD's water conservation education program calendar. The students submitting the top three winning posters along with their entire class receive an all expense paid field trip to tour MWD's Weymouth Treatment Plant. Also, the District recently sponsored its Seventh Annual High School Essay Contest for all students grades 9-12 who reside within the District's service area. Students were required to prepare an essay of 500 words or less addressing the theme, "Water is Life". The purpose of the contest is to encourage students to learn more about water resources as well as provide them with the opportunity to recognize their own writing skills and abilities. Awards were presented to the essay contest winners in conjunction with the poster contest awards ceremony, which was held following the District Board meeting last May. Earlier this year Diamond Bar High School students designed and constructed a solar-powered boat that was entered into the Solar Cup 2005 competition held at Lake Skinner near Temecula May 13-15. The District co-sponsored the Diamond Bar Solar Cup Team and provided technical assistance to increase awareness of water quality issues and give students the opportunity to gain valuable knowledge of alternative energy and fuel sources.

### **BMP 9 - Conservation Programs for CII Accounts**

Since 1993 the District has been actively involved in having a consultant perform water audits at various commercial and industrial sites in conjunction with one of MWD's programs. After offering free audits to the high water users in each group, the District's consultant performs a field survey at participating sites and then sends a letter report with appropriate recommendations tailored to the water use characteristics for each facility. So far, water-use audits have been performed at 13 commercial sites (4 restaurants, 5 supermarkets, 2 hotels, 1 business center, and 1 car wash) and at 20 industrial sites (8 manufacturing plants, 8 warehouses, 1 trucking company, 1 chrome plating plant, 1 food processing plant, and 1 stainless steel wire cutting facility). Included among the industrial sites were a glass manufacturer, two companies that make shampoos and cosmetics, a company that produces corrugated boxes, a company that makes packaging materials, and a company that assembles fluorescent light fixtures. Furthermore, water audits have been performed at 12 institutional sites. In conjunction with this program the District's consultant performed water-use surveys and provided letter reports containing water conservation recommendations for 2 local churches, 8 schools, the sheriff's station, and the South Coast Air Quality Management District. Currently, CII customers are eligible to receive rebate money to replace inefficient fixtures in conjunction with MWD's "Save-a-Buc" program. Under this program, five water brooms were distributed to local fast food restaurants and 19 rebates were processed for commercial high-efficiency clothes washers during the 2004 reporting period. Additionally, 51 pre-rinse valves were distributed to local restaurants during the 2003 reporting period. Existing customers have been directed to call a toll-free telephone number to obtain information about this program.

**BMP 10 - Wholesale Agency Assistance Programs**

This BMP does not apply since the District is a retail agency.

**BMP 11 - Conservation Pricing**

The District's uniform pricing structure is designed to promote conservation in compliance with this BMP. The LACSD also provides a conservation based rate structure for sewer service within this District.

**BMP 12 - Conservation Coordinator**

Existing full-time District staff currently handles the duties required of a Conservation Coordinator in conjunction with their other duties.

**BMP 13 - Water Waste Prohibition**

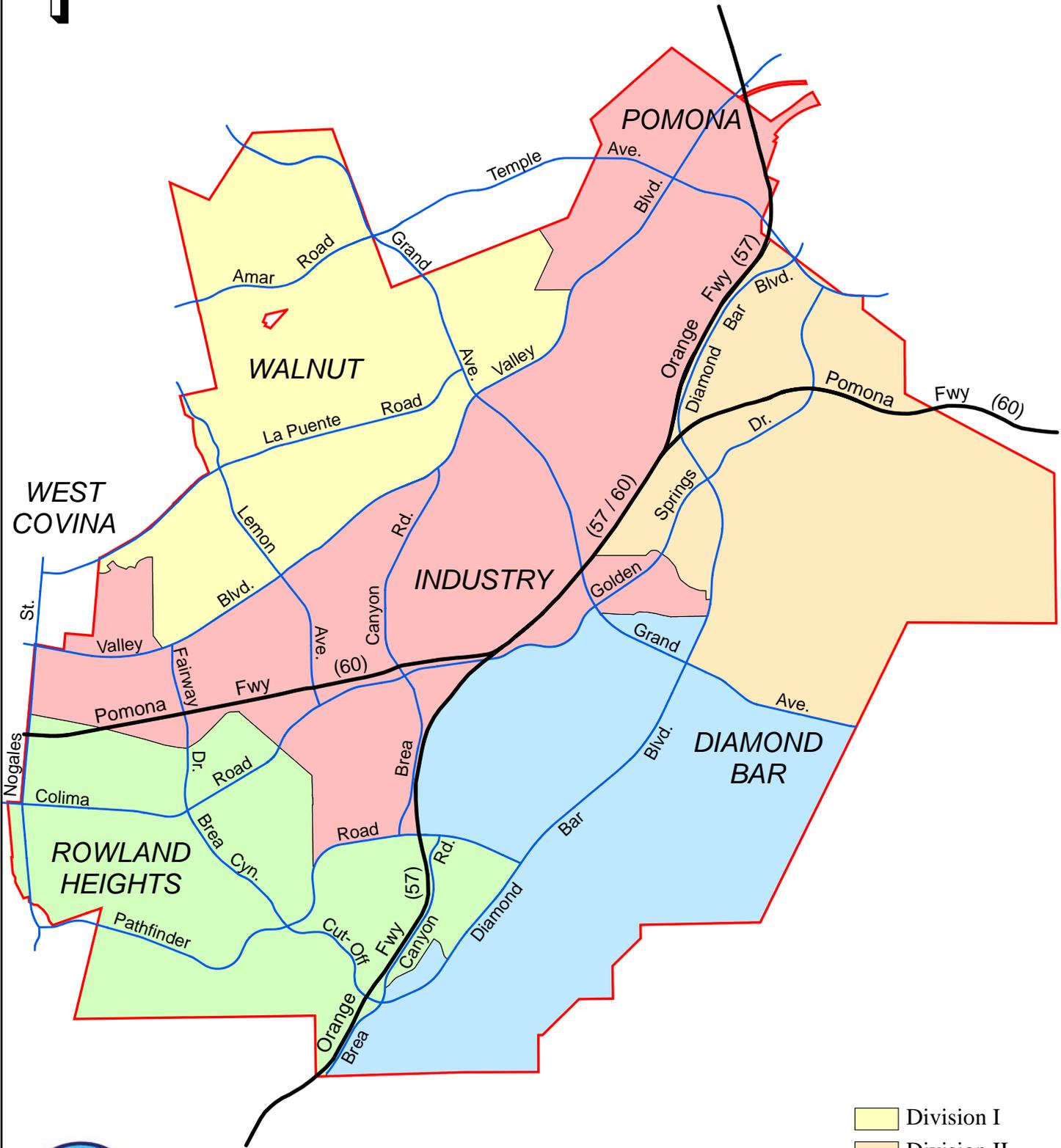
Copies of resolutions regarding the prohibition of water waste are included in Appendix A and Appendix C contains an excerpt from the District's Rules and Regulations regarding water conservation.

**BMP 14 - Residential ULFT Replacement Programs**

In 1994 the District completed a successful ultra-low-flush toilet (ULFT) rebate program that resulted in the replacement of 1,049 high volume toilets in 527 homes, 2 mobile homes, 151 apartments, 2 businesses, and 1 church. Over the course of this program, the District provided \$80,580 in rebates to participating customers. The total cost for this program, including administrative and overhead costs, was \$108,583, \$49,742 of which was provided by MWD. In 1997, with the help of a consultant and high school students, the District distributed 480 ULFTs at Walnut High School and 460 ULFTs at Diamond Bar High School. Local high school students participated by helping with the paperwork, distributing ULFTs, and assisting in the advertising effort by canvassing from door-to-door. The high schools received \$15 for each installed ULFT confirmed by the customer returning the old toilet for recycling two weeks later. Starting in 1998 and continuing each year thereafter with the exception of 2002, special ULFT distribution events have been held at the District office, resulting in the distribution of 4,365 free ULFTs. Students from four local high schools participated on event day by assisting with the paperwork, loading free ULFTs in customer vehicles, and helping the District's consultant several weeks later when the old toilets were returned for recycling. Since 1997 local high schools have received over \$90,000 for participating in these successful programs resulting in the replacement of 5,315 water wasting toilets.

**APPENDIX C**  
**WVWD SUPPLEMENTAL INFORMATION**

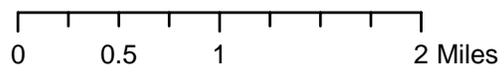
- WVWD Election Division and Service Area Map
- Cover Page of WVWD 2002 Water System Master Plan
- Cover Page of WVWD 1999 Recycled Water System Master Plan
- WVWD Relief From Compliance Policy
- Water Conservation Section 4.07 from WVWD Rules and Regulations



-  Division I
-  Division II
-  Division III
-  Division IV
-  Division V



Walnut Valley Water District  
Board Election Divisions



# WATER SYSTEM MASTER PLAN



**DECEMBER 2002**

271  
Walnut Valley Water District

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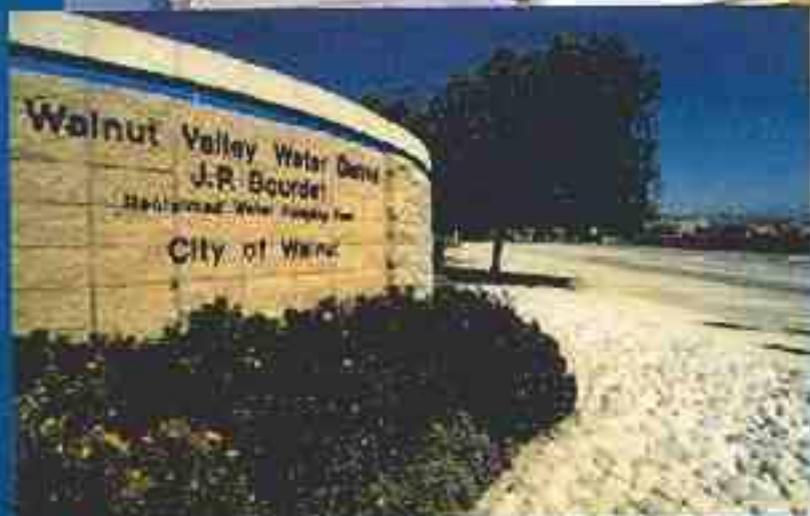


Walnut Valley Water District



# Recycled Water System Master Plan

June 1999



CATHART  
GARCIA  
VON LANGER

**CGvL**  
ENGINEERS

WALNUT VALLEY WATER DISTRICT  
RELIEF FROM COMPLIANCE POLICY

March 1991

- (a) An aggrieved consumer may file an application for relief from any provisions of District Resolution 1-91-149. The Appeals Officer shall follow the procedures defined in this policy to resolve such applications and shall, upon the filing by a consumer of an application for relief, take steps to resolve the application for relief. The Appeals Officer may delegate his/her duties and responsibilities under this section as appropriate.
- (b) The application for relief may include a request that the consumer be relieved, in whole or in part, from the water use curtailment provisions of District Resolution 1-91-150.
- (c) In determining whether to grant relief, and the nature of any relief, the Appeals Officer shall take into consideration all relevant factors, including but not limited to:
  - 1) Whether any reduction in water consumption will result in unemployment;
  - 2) Whether members have been added to the household;
  - 3) Whether any landscaped property has been added to the property since the corresponding billing period of the prior calendar year;
  - 4) Changes in vacancy factors in multi-family housing;
  - 5) Increased number of employees in commercial, industrial and governmental offices;
  - 6) Increased production requiring increased process water;
  - 7) Adjustments to water use caused by emergency health or safety hazards;
  - 8) Water use necessary for reasons related to family illness or health; and
  - 9) Livestock on property.
- (d) In order to be considered, an application for relief must be filed in writing with the District within fifteen (15) days from the date the provision from which relief is sought becomes applicable to the applicant. No relief shall be granted unless the consumer shows that he or she has achieved the maximum practical reduction in water consumption other than in the specific areas in which relief is being sought. No relief shall be granted to any consumer who, when requested by the Appeals Officer, fails to provide any information necessary for resolution of the consumer's application for relief.
- (e) The appeals procedure shall consist of the following steps:
  - 1) The first level of appeal shall be a hearing before the Appeals Officer, or designee, scheduled within a reasonable period of time following filing of the application for relief. No formal rules of evidence apply. All evidence customarily relied upon by reasonable persons in the conduct of serious business affairs will be allowed and the consumer may present any such evidence which shows the alleged wasteful water use has not occurred. Filing of an application will not prevent discontinuance of service or imposition of any other penalties. To avoid penalties or discontinuance of service, water bills must be paid under protest, pending conclusion of the appeals process. The decision of the Appeals Officer will be given in writing to the consumer within fifteen (15) days of the appeal hearing. A consumer whose request for relief has been denied shall have the right to appeal to the second level, provided a written request has been made within fifteen (15) days following the date of mailing of the decision rendered by the Appeals Officer.
  - 2) The second level of appeal shall consist of a review of the Appeals Officer's decision by the General Manager or designee. Should relief from compliance be denied at this level, the consumer shall have the right to appeal to the third level, provided a written request has been made within fifteen (15) days following the date of mailing of the decision rendered by the General Manager or designee.
  - 3) The third level of appeal shall consist of a hearing before the Board of Directors' Appeals Committee (Committee). Upon receipt of a written appeal from the decision by the General Manager or designee, a hearing will be scheduled before the Committee, composed of two members of the Board of Directors. The decision of the Committee shall be final. In the event the committee cannot reach agreement on the disposition of the appeal, notice of such fact shall be given to the consumer, together with a notice of a hearing on the appeal before the full Board of Directors.
- (f) Any appeal made should state the grounds upon which it is based and what remedy, if any, the appellant seeks.

- 4.06.05        **Inclusion of Additional Land Area:** Any consumer/property owner shall notify the District of any additional land area or adjacent lots not served at the time of original commencement of service that are to be served from the existing service connection. In such cases, the District will assess current Reservoir Capacity Charge and Acreage Supply Charge for the additional land area as set forth in Articles 6.06 and 6.07.

#### 4.07    **WATER CONSERVATION**

The purpose of this rule is to ensure that water resources available to the District are put to a reasonable beneficial use and that the benefits of the District's water supply and service extend to the largest number of persons. Every 5 years the District updates its Urban Water Management Plan, which details the long-range plans for the use and management of the District's water supply. The current Urban Water Management Plan is on file in the District's office.

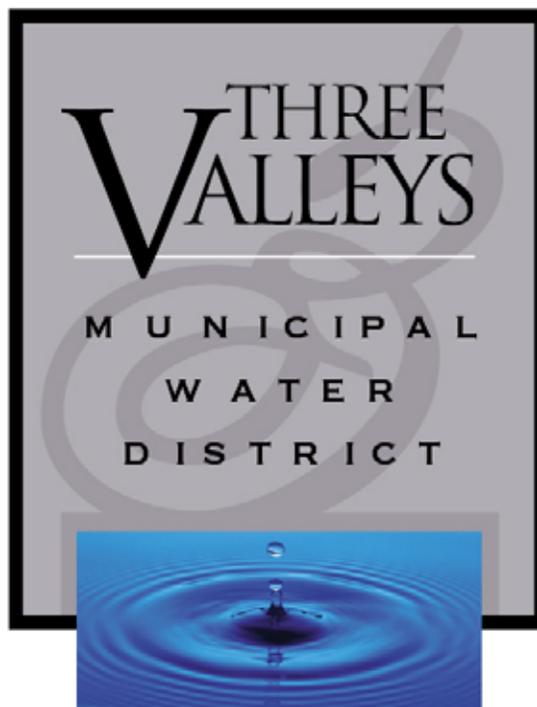
- 4.07.01        **Wastage:** In order to protect itself against serious and negligent waste of water, including, but not limited to, the uses listed in the following sentence, the District may disconnect service as set forth in Article 4.05.02.03. The District finds that negligent wastes of water include, but are not limited to: (i) gutter flooding, (ii) single pass cooling systems in new connections, (iii) non-recirculating systems in all new conveyor car wash and commercial laundry systems; and (iv) non-recycling decorative water fountains.
- 4.07.02        **Water-Saving Devices:** Each consumer of the District is urged to install devices to reduce the quantity of water needed to flush toilets, reduce the flow rate of shower heads, reduce the amount of water used for turf irrigation, or any other reduction which may be required to comply with any regulations promulgated by State or local authorities.
- 4.07.03        **Alternate Sources:** Whenever economically feasible, recycled water shall be used to the fullest extent possible.
- 4.07.04        **Water-Saving Practices:** Each consumer in the District is urged to implement other water-saving and reuse practices and procedures which are feasible.
- 4.07.05        **Dual Meters:** To facilitate potential water conservation measures and provide for expansion of recycled water use, all new commercial/industrial sites shall be required to install separate meters for potable water use and landscape irrigation. This requirement shall also apply to any commercial/industrial sites undergoing a change of use or inclusion of additional land area, as defined in Section 4.06. For purposes of this requirement, change of use shall include, but not be limited to, tenant improvements or other expansion constituting a substantial change in the character, size, or use of the property, as determined by the General Manager or designee on a case-by-case basis.

**APPENDIX D**  
**MWD/TVMWD INFORMATION**

- Cover Page of Draft TVMWD 2005 Urban Water Management Plan – December 7, 2005
- Cover Page of Draft MWD Regional Urban Water Management Plan – September 2005
- Cover Page of MWD Integrated Water Resources Plan 2003 Update – May 2004
- Cover Page of Department of Water Resources California Water Plan Update 2005

# Urban Water Management Plan 2005

December 7, 2005



**THREE VALLEYS MUNICIPAL WATER DISTRICT**  
1021 E. Miramar Avenue  
Claremont, CA 91711

[www.threevalleys.com](http://www.threevalleys.com)

# DRAFT

**THE METROPOLITAN WATER DISTRICT OF  
SOUTHERN CALIFORNIA**

**REGIONAL URBAN WATER MANAGEMENT PLAN**

Prepared by:

METROPOLITAN WATER DISTRICT OF SOUTHERN CALIFORNIA  
Water Resource Management Group  
700 North Alameda Street  
Los Angeles, CA 90012

September 2005

# **INTEGRATED WATER RESOURCES PLAN**

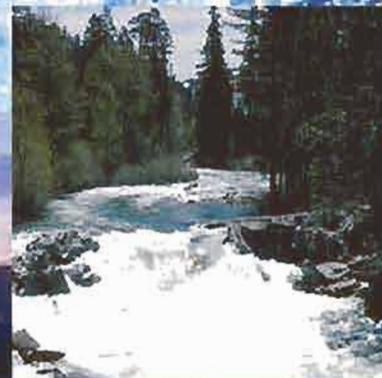
## **2003 UPDATE**

**Prepared by:**

**THE METROPOLITAN WATER DISTRICT  
OF SOUTHERN CALIFORNIA**

**700 North Alameda Street  
Los Angeles, CA 90012  
(213) 217-6000**

*May 2004*



California  
**WaterPlan**  
A FRAMEWORK FOR ACTION **Update 2005**  
Vol. I-Strategic Plan

California Water Plan Update Bulletin 160-05  
Department of Water Resources

**PUBLIC REVIEW DRAFT**  
April 2005



**APPENDIX E**  
**CUWCC INFORMATION**

- 2003 Report Submittal
- 2004 Report Submittal
- Cover Letter of Exemption Request for BMP 1 – November 29, 2004

Reported as of 7/1

**Water Supply & Reuse**

Reporting Unit:

**Walnut Valley Water District**

Year:

**2003****Water Supply Source Information**

<b>Supply Source Name</b>	<b>Quantity (AF) Supplied</b>	<b>Supply Type</b>
Weymouth Treatment Plant	21693.13	Imported
Miramar Treatment Plant	2237.44	Imported
Pomona Reclamation Plant	564.72	Recycled
Recycled Wells	364.7	Groundwater

**Total AF: 24859.99**

Reported as of 7/1

**Accounts & Water Use**Reporting Unit Name:  
**Walnut Valley Water District**Submitted to  
CUWCC  
**11/30/2004**Year:  
**2003****A. Service Area Population Information:**

1. Total service area population 98600

**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	23796	16123.63	0	0
2. Multi-Family	995	2196.72	0	0
3. Commercial	754	1865.54	0	0
4. Industrial	160	474.4	0	0
5. Institutional	75	546.5	0	0
6. Dedicated Irrigation	258	1079.45	0	0
7. Recycled Water	191	1731.45	0	0
8. Other	24	46.11	0	0
9. Unaccounted	NA	796.19	NA	0
<b>Total</b>	<b>26253</b>	<b>24859.99</b>	<b>0</b>	<b>0</b>
	Metered		Unmetered	

Reported as of 7/1

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

Reporting Unit: **Walnut Valley Water District**      BMP Form Status: **100% Complete**      Year: **2003**

### A. Implementation

- |   |            |
|---|------------|
| 1. Based on your signed MOU date, 11/14/1991, your Agency STRATEGY DUE DATE is:   | 11/13/1993 |
| 2. Has your agency developed and implemented a targeting/ marketing strategy for SINGLE-FAMILY residential water use surveys? | no         |
| a. If YES, when was it implemented?   |            |
| 3. Has your agency developed and implemented a targeting/ marketing strategy for MULTI-FAMILY residential water use surveys?  | no         |
| a. If YES, when was it implemented?   |            |

### B. Water Survey Data

<b>Survey Counts:</b>	<b>Single Family Accounts</b>	<b>Multi-Family Units</b>
1. Number of surveys offered:	0	0
2. Number of surveys completed:	0	0

### Indoor Survey:

- |   |     |     |
|---|-----|-----|
| 3. Check for leaks, including toilets, faucets and meter checks   | yes | yes |
| 4. Check showerhead flow rates, aerator flow rates, and offer to replace or recommend replacement, if necessary   | yes | yes |
| 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 | yes | yes |

### Outdoor Survey:

- |  |                |     |
|--|----------------|-----|
| 6. Check irrigation system and timers  | yes            | no  |
| 7. Review or develop customer irrigation schedule  | yes            | no  |
| 8. Measure landscaped area (Recommended but not required for surveys)  | yes            | no  |
| 9. Measure total irrigable area (Recommended but not required for surveys)   | yes            | no  |
| 10. Which measurement method is typically used (Recommended but not required for surveys)                                | Odometer Wheel |     |
| 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?                     | no             | no  |
| a. If yes, in what form are surveys tracked?   |                |     |

b. Describe how your agency tracks this information.

### C. Water Survey Program Expenditures

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

The Walnut Valley Water District filed a cost-effectiveness analysis to exempt the District from this BMP. The cost-effectiveness analysis was submitted on November 25, 2002.

Reported as of 7/1

**BMP 02: Residential Plumbing Retrofit**

Reporting Unit: **Walnut Valley Water District**      BMP Form Status: **100% Complete**      Year: **2003**

**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? yes

3. Estimated percent of single-family households with low-flow showerheads: 95%

4. Has your agency satisfied the 75% saturation requirement for multi-family housing units? yes

5. Estimated percent of multi-family households with low-flow showerheads: 95%

6. If YES to 2 OR 4 above, please describe how saturation was determined, including the dates and results of any survey research.

The Walnut Valley Water District participated in the AWWARF Residential End Uses of Water Study and the data collected for this study shows an average showerhead flow rate of 2.09 gpm for homes within the District's service area.

**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? 7/1/1989

b. Describe your targeting/ marketing strategy.

Free showerheads and toilet tank displacement devices were offered in conjunction with previous home water use survey programs advertised to our consumers in the District's bimonthly newsletter.

<b>Low-Flow Devices Distributed/ Installed</b>	<b>SF Accounts</b>	<b>MF Units</b>
2. Number of low-flow showerheads distributed:	0	0
3. Number of toilet-displacement devices distributed:	0	0
4. Number of toilet flappers distributed:	0	0
5. Number of faucet aerators distributed:	0	0
6. Does your agency track the distribution and cost of low-flow devices?		no

a. If YES, in what format are low-flow devices tracked?

b. If yes, describe your tracking and distribution system :

**C. Low-Flow Device Distribution Expenditures**

	<b>This Year</b>	<b>Next Year</b>
1. Budgeted Expenditures	0	0
2. Actual Expenditures	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**

The Walnut Valley Water District filed a cost-effectiveness analysis to exempt the District from this BMP. The cost-effectiveness analysis was submitted on November 25, 2002.

Reported as of 7/1

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

Reporting Unit: **Walnut Valley Water District**      BMP Form Status: **100% Complete**      Year: **2003**

**A. Implementation**

- |  |       |
|--|-------|
| 1. Has your agency completed a pre-screening system audit for this reporting year?   | yes   |
| 2. If YES, enter the values (AF/Year) used to calculate verifiable use as a percent of total production:                                   |       |
| a. Determine metered sales (AF)  | 24064 |
| b. Determine other system verifiable uses (AF)   | 13    |
| c. Determine total supply into the system (AF)   | 24860 |
| d. Using the numbers above, if (Metered Sales + Other Verifiable Uses) / Total Supply is < 0.9 then a full-scale system audit is required. | 0.97  |
| 3. Does your agency keep necessary data on file to verify the values used to calculate verifiable uses as a percent of total production?   | yes   |
| 4. Did your agency complete a full-scale audit during this report year?  | no    |
| 5. Does your agency maintain in-house records of audit results or the completed AWWA audit worksheets for the completed audit?             | yes   |
| 6. 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.    | 367 |
| 2. Number of miles of distribution system line surveyed. | 0   |

**C. System Audit / Leak Detection Program Expenditures**

	<b>This Year</b>	<b>Next Year</b>
1. Budgeted Expenditures	0	0
2. Actual Expenditures	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**

Reported as of 7/1

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

Reporting Unit: **Walnut Valley Water District**      BMP Form Status: **100% Complete**      Year: **2003**

### A. Implementation

- |   |     |
|---|-----|
| 1. Does your agency require meters for all new connections and bill by volume-of-use?                         | yes |
| 2. Does your agency have a program for retrofitting existing unmetered connections and bill by volume-of-use? | no  |
| a. If YES, when was the plan to retrofit and bill by volume-of-use existing unmetered connections completed?  |     |
| b. Describe the program:  |     |
| 3. Number of previously unmetered accounts fitted with meters during report year.                             | 0   |

### 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?<br>(mm/dd/yy)   |     |
| b. Describe the feasibility study:   |     |
| 2. Number of CII accounts with mixed-use meters.   | 408 |
| 3. Number of CII accounts with mixed-use meters retrofitted with dedicated irrigation meters during reporting period.  | 3   |

### C. Meter Retrofit Program Expenditures

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

The District requires the installation of separate irrigation meters for all new CII developments.

Reported as of 7/1

## BMP 05: Large Landscape Conservation Programs and Incentives

Reporting Unit:  
**Walnut Valley Water  
 District**

BMP Form Status:  
**100% Complete**

Year:  
**2003**

### A. Water Use Budgets

- |  |     |
|--|-----|
| 1. Number of Dedicated Irrigation Meter Accounts:  | 258 |
| 2. Number of Dedicated Irrigation Meter Accounts with Water Budgets:                       | 0   |
| 3. Budgeted Use for Irrigation Meter Accounts with Water Budgets (AF):                     | 0   |
| 4. Actual Use for Irrigation Meter Accounts with Water Budgets (AF):                       | 0   |
| 5. Does your agency provide water use notices to accounts with budgets each billing cycle? | no  |

### B. Landscape Surveys

- |  |    |
|--|----|
| 1. Has your agency developed a marketing / targeting strategy for landscape surveys? | no |
| a. If YES, when did your agency begin implementing this strategy?                    |    |
| b. Description of marketing / targeting strategy:                                    |    |
| 2. Number of Surveys Offered.  | 0  |
| 3. Number of Surveys Completed.  | 0  |
| 4. Indicate which of the following Landscape Elements are part of your survey:       |    |
| a. Irrigation System Check   | no |
| b. Distribution Uniformity Analysis  | no |
| c. Review / Develop Irrigation Schedules   | no |
| d. Measure Landscape Area  | no |
| e. Measure Total Irrigable Area  | no |
| f. Provide Customer Report / Information   | no |
| 5. Do you track survey offers and results?   | no |
| 6. Does your agency provide follow-up surveys for previously completed surveys?      | no |
| 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. Does your agency provide mixed-use accounts with landscape budgets? | no  |
| 2. Number of CII mixed-use accounts with landscape budgets.   | 0   |
| 3. Do you offer landscape irrigation training?  | yes |
| 4. Does your agency offer financial incentives to improve   | no  |

landscape water use efficiency?

<b>Type of Financial Incentive:</b>	<b>Budget (Dollars/Year)</b>	<b>Number Awarded to Customers</b>	<b>Total Amount Awarded</b>
-------------------------------------	------------------------------	------------------------------------	-----------------------------

- a. Rebates
- b. Loans
- c. Grants

5. Do you provide landscape water use efficiency information to new customers and customers changing services?	yes
--	-----

a. If YES, describe below:

The District provides the following information to new and existing consumers to educate them on the importance of landscape water use efficiency: 1. The Story of Drinking Water 2. Water Conservation at Home

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. Landscape Conservation Program Expenditures**

	<b>This Year</b>	<b>Next Year</b>
1. Budgeted Expenditures	0	0
2. Actual Expenditures	0	

**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**

The District is looking into ways it can incorporate into its GIS system spatial information to obtain landscape areas for computation of water use budgets.

Reported as of 7/1

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

Reporting Unit: **Walnut Valley Water District**      BMP Form Status: **100% Complete**      Year: **2003**

### A. Implementation

1. Do any energy service providers or waste water utilities in your service area offer rebates for high-efficiency washers? yes

a. If YES, describe the offerings and incentives as well as who the energy/waste water utility provider is.

Each calendar year the Southern California Gas Company offers a rebate program to its customers on a first-come first-served basis. Customers can obtain a \$75 rebate for the purchase of a Tier 1 high-efficiency washer or a \$125 rebate for the purchase of a Tier 2 high-efficiency washer.

2. Does your agency offer rebates for high-efficiency washers? yes

3. What is the level of the rebate? 100

4. Number of rebates awarded. 107

### B. Rebate Program Expenditures

	<b>This Year</b>	<b>Next Year</b>
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? yes

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."

Although the District does not directly provide rebate money for this program, Walnut Valley Water District customers are able to receive a \$100 rebate through a program managed by Three Valleys Municipal Water District. This program is co-sponsored by the State Department of Water Resources, Metropolitan Water District, and U.S. Bureau of Reclamation.

### D. Comments

Reported as of 7/1

### BMP 07: Public Information Programs

Reporting Unit: **Walnut Valley Water District**      BMP Form Status: **100% Complete**      Year: **2003**

#### A. Implementation

1. Does your agency maintain an active public information program to promote and educate customers about water conservation? yes

a. If YES, describe the program and how it's organized.

The District conducts the following programs to promote and educate customers about water conservation: 1. District Newsletter, Water Line, is distributed to every District customer two times each year. 2. On-Hold Message: Suggests ways to conserve and offers free water conservation brochures and materials to help consumers conserve. 3. Public Events: District staffs a booth at numerous community events throughout the year to distribute free conservation brochures and materials to consumers. 4. Water Bills: Shows water usage comparisons to consumers. 5. Billing Insert: Billing inserts are provided in monthly water bills ten times per year. 6. Paid Advertising: Print water conservation ads in local school and community publications. 7. Banners that display conservation message. 8. Parades where District representatives hand out yo-yos, sponges, etc. that have a water conservation message. 9. Open House in conjunction with chamber mixer event. 10. Walnut Cable TV interviewed District representatives and provided the public with important water conservation information.

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

Public Information Program Activity	Yes/No	Number of Events
a. Paid Advertising	yes	4
b. Public Service Announcement	yes	1
c. Bill Inserts / Newsletters / Brochures	yes	12
d. Bill showing water usage in comparison to previous year's usage	yes	
e. Demonstration Gardens	no	
f. Special Events, Media Events	yes	4
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

	This Year	Next Year
1. Budgeted Expenditures	55000	80000
2. Actual Expenditures	25398	

#### 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**

Reported as of 7/1

### BMP 08: School Education Programs

Reporting Unit:  
**Walnut Valley Water District**

BMP Form Status:  
**100% Complete**

Year:  
**2003**

#### A. Implementation

1. Has your agency implemented a school information program to promote water conservation? yes

2. Please provide information on your 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	35	2411	0
Grades 4th-6th	yes	27	2547	1
Grades 7th-8th	yes	0	0	0
High School	yes	5	150	0

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

4. When did your Agency begin implementing this program? 7/1/1990

#### B. School Education Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	35000	55000
2. Actual Expenditures	33485	

#### 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

School education programs for this reporting period include: 16 theater performances at 9 schools reaching 3,889 students with the National Theatre for Children's presentation of "Alice in Water Land" and grade appropriate materials. 3rd-5th grade poster contest reaching 650 students in 33 classes. High school essay contest with 9 entries from 5 classes. Learning to be WaterWise program reached 239 fifth grade students attending 5 classes with grade appropriate materials. Water education presentations to 180 K-3rd grade students in 8 classes.

Reported as of 7/1

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

Reporting Unit:  
**Walnut Valley Water  
 District**

BMP Form Status:  
**100% Complete**

Year:  
**2003**

**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? yes

<b>CII Surveys</b>	<b>Commercial Accounts</b>	<b>Industrial Accounts</b>	<b>Institutional Accounts</b>
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
<b>CII Survey Components</b>	<b>Commercial Accounts</b>	<b>Industrial Accounts</b>	<b>Institutional Accounts</b>
e. Site Visit	yes	yes	yes
f. Evaluation of all water-using apparatus and processes	yes	yes	yes
g. Customer report identifying recommended efficiency measures, paybacks and agency incentives	yes	yes	yes
<b>Agency CII Customer Incentives</b>	<b>Budget (\$/Year)</b>	<b>No. Awarded to Customers</b>	<b>Total \$ Amount Awarded</b>
h. Rebates	0	0	0
i. Loans	0	0	0
j. Grants	0	0	0
k. Others	0	51	0

---

## Option B: CII Conservation Program Targets

---

5. Does your agency track CII program interventions and water savings for the purpose of complying with BMP 9 under this option? no
6. Does your agency document and maintain records on how savings were realized and the method of calculation for estimated savings?
7. Estimated annual savings (AF/yr) from site-verified actions taken by agency since 1991.
8. Estimated annual savings (AF/yr) from non-site-verified actions taken by agency since 1991.

### 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

District consumers have been able to participate in CII survey programs in the past that consist of a site visit, an evaluation of customer water use, and a report identifying recommended efficiency measures. Currently, CII customers are eligible to receive rebate money for the replacement of inefficient fixtures in conjunction with Metropolitan Water District's Sav-a-Buc program. Under this program, 51 pre-rinse valves were distributed to local restaurants during this reporting period. Existing customers have been directed to call a toll-free telephone number to obtain information about this program.

Reported as of 7/1

**BMP 09a: CII ULFT Water Savings**

Reporting Unit: **Walnut Valley Water District**      BMP Form Status: **100% Complete**      Year: **2003**

1. Did your agency implement a CII ULFT replacement program in the reporting year? No  
 If No, please explain why on Line B. 10.

**A. Targeting and Marketing**

1. What basis does your agency use to target customers for participation in this program?  
 Check all that apply.
  - a. Describe which method you found to be the most effective overall, and which was the most effective per dollar expended.
  
2. How does your agency advertise this program? Check all that apply.
  - a. Describe which method you found to be the most effective overall, and which was the most effective per dollar expended.

**B. Implementation**

1. Does your agency keep and maintain customer participant information? (Read the Help information for a complete list of all the information for this BMP.)
2. Would your agency be willing to share this information if the CUWCC did a study to evaluate the program on behalf of your agency?
3. What is the total number of customer accounts participating in the program during the last year ?

CII Subsector	Number of Toilets Replaced			
	Standard Gravity Tank	Air Assisted	Valve Floor Mount	Valve Wall Mount
4.				
a. Offices				
b. Retail / Wholesale				
c. Hotels				
d. Health				
e. Industrial				
f. Schools: K to 12				
g. Eating				
h. Government				
i. Churches				
j. Other				

- 5. Program design.
- 6. Does your agency use outside services to implement this program?
  - a. If yes, check all that apply.
- 7. Participant tracking and follow-up.
- 8. Based on your program experience, please rank on a scale of 1 to 5, with 1 being the least frequent cause and 5 being the most frequent cause, the following reasons why customers refused to participate in the program.
  - a. Disruption to business
  - b. Inadequate payback
  - c. Inadequate ULFT performance
  - d. Lack of funding
  - e. American's with Disabilities Act
  - f. Permitting
  - g. Other. Please describe in B. 9.
- 9. Please describe general program acceptance/resistance by customers, obstacles to implementation, and other issues affecting program implementation or effectiveness.
- 10. Please provide a general assessment of the program for this reporting year. Did your program achieve its objectives? Were your targeting and marketing approaches effective? Were program costs in line with expectations and budgeting?

Although the District did not implement and manage a CII ULFT program during the reporting year, District staff did direct CII customers to Metropolitan Water District's Sav-a-Buc program so they could obtain rebate money to replace older style toilets.

**C. Conservation Program Expenditures for CII ULFT**

1. CII ULFT Program: Annual Budget & Expenditure Data

	<b>Budgeted</b>	<b>Actual Expenditure</b>
a. Labor		
b. Materials		
c. Marketing & Advertising		
d. Administration & Overhead		
e. Outside Services		
f. Total	0	0

2. CII ULFT Program: Annual Cost Sharing

- a. Wholesale agency contribution
- b. State agency contribution
- c. Federal agency

contribution  
d. Other contribution  
e. Total

0

**D. Comments**

Reported as of 7/1

**BMP 11: Conservation Pricing**

Reporting Unit:  
**Walnut Valley Water District**

BMP Form  
 Status:  
**100% Complete**

Year:  
**2003**

**A. Implementation****Rate Structure Data Volumetric Rates for Water Service by Customer Class****1. Residential**

a. Water Rate Structure	Uniform
b. Sewer Rate Structure	Service Not Provided
c. Total Revenue from Volumetric Rates	\$12570121
d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue Sources	\$2821183

**2. Commercial**

a. Water Rate Structure	Uniform
b. Sewer Rate Structure	Service Not Provided
c. Total Revenue from Volumetric Rates	\$1280001
d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue Sources	\$340816

**3. Industrial**

a. Water Rate Structure	Uniform
b. Sewer Rate Structure	Service Not Provided
c. Total Revenue from Volumetric Rates	\$325500
d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue Sources	\$83358

**4. Institutional / Government**

a. Water Rate Structure	Uniform
b. Sewer Rate Structure	Service Not Provided
c. Total Revenue from Volumetric Rates	\$374969
d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue Sources	\$62106

**5. Irrigation**

a. Water Rate Structure	Uniform
b. Sewer Rate Structure	Service Not Provided
c. Total Revenue from Volumetric Rates	\$740642
d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue Sources	\$151313

**6. Other**

a. Water Rate Structure	Uniform
-------------------------	---------

b. Sewer Rate Structure	Service Not Provided
c. Total Revenue from Volumetric Rates	\$64256
d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue Sources	\$562612

### **B. Conservation Pricing Program Expenditures**

	<b>This Year</b>	<b>Next Year</b>
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**

Total revenue under item 6 for Other includes revenue from construction water and from fire protection.

Reported as of 7/1

**BMP 12: Conservation Coordinator**

Reporting Unit:  
**Walnut Valley Water  
 District**

BMP Form Status:  
**100% Complete**

Year:  
**2003**

**A. Implementation**

1. Does your Agency have a conservation coordinator? yes
2. Is this a full-time position? yes
3. If no, is the coordinator supplied by another agency with which you cooperate in a regional conservation program ?
4. Partner agency's name:
5. If your agency supplies the conservation coordinator:
  - a. What percent is this conservation coordinator's position? 25%
  - b. Coordinator's Name Denis Hernandez
  - c. Coordinator's Title Director of Administrative Services
  - d. Coordinator's Experience and Number of Years 12 years experience managing and coordinating with consultants numerous conservation programs including ULF toilet programs, CII and single family residential survey programs, the Residential End Use Study, etc.
  - e. Date Coordinator's position was created (mm/dd/yyyy) 12/9/1991
6. Number of conservation staff, including Conservation Coordinator. 2

**B. Conservation Staff Program Expenditures**

	<b>This Year</b>	<b>Next Year</b>
1. Budgeted Expenditures	86200	92731
2. Actual Expenditures	77404	

**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**

Reported as of 7/1

**BMP 13: Water Waste Prohibition**

Reporting Unit:

**Walnut Valley Water  
District**

BMP Form Status:

**100% Complete**

Year:

**2003****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:

The District's Rules and Regulations specifically prohibit water waste. During the 1991 drought, the District adopted a resolution enforcing mandatory water conservation measures.

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>City of Diamond Bar. City of Walnut. City of West Covina.</p>	<p>City of Diamond Bar - Storm Water &amp; Urban Runoff Pollution Control. City of Walnut - Resolution No. 2949 Supporting Mandatory Water Conservation Measures. Ordinance No. 551 Supporting Water Efficient Landscape and Irrigation. City of West Covina - National Pollution Discharge Elimination Study.</p>
--	--

**B. Implementation**

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

a. Gutter flooding yes

b. Single-pass cooling systems for new connections yes

c. Non-recirculating systems in all new conveyor or car wash systems yes

d. Non-recirculating systems in all new commercial laundry systems yes

e. Non-recirculating systems in all new decorative fountains yes

f. Other, please name no

2. Describe measures that prohibit water uses listed above:

District employees hang a door tag as a warning notice to the consumer. Also, the District may disconnect service for negligent waste or misuse of water.

**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. no
- 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. Water Waste Prohibition Program Expenditures**

	<b>This Year</b>	<b>Next Year</b>
1. Budgeted Expenditures	0	0
2. Actual Expenditures	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**

Reported as of 7/1

### BMP 14: Residential ULFT Replacement Programs

Reporting Unit: **Walnut Valley Water District**      BMP Form Status: **100% Complete**      Year: **2003**

#### A. Implementation

	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

#### Number of Toilets Replaced by Agency Program During Report Year

Replacement Method	SF Accounts	MF Units
2. Rebate	0	0
3. Direct Install	0	0
4. CBO Distribution	814	0
5. Other	0	0
<b>Total</b>	<b>814</b>	<b>0</b>

6. Describe your agency's ULFT program for single-family residences.

Through mass mailing to qualifying single-family residences, the District offers free ULFTs to District consumers each year. The program is managed with the assistance of a contractor and local high school students participate in the work by helping with the paperwork and the distribution of the ULFTs. High school students may also assist in the advertising effort by canvassing from door-to-door. Each of the 4 participating high schools receive \$5 for every old toilet returned.

7. Describe your agency's ULFT program for multi-family residences.

District consumers living in multi-family dwellings are also encouraged to participate in the aforementioned ULFT program.

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

9. 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

	This Year	Next Year
1. Budgeted Expenditures	52000	44000
2. Actual Expenditures	50525	

#### 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



Reported as of 7/1

**Water Supply & Reuse**

Reporting Unit:

**Walnut Valley Water District**

Year:

**2004****Water Supply Source Information**

<b>Supply Source Name</b>	<b>Quantity (AF) Supplied</b>	<b>Supply Type</b>
Weymouth Treatment Plant	22075.61	Imported
Miramar Treatment Plant	2933	Imported
Pomona Reclamation Plant	852.24	Recycled
Recycled Wells	489.54	Groundwater

**Total AF: 26350.39**

Reported as of 7/1

## Accounts & Water Use

Reporting Unit Name:  
**Walnut Valley Water District**

Submitted to  
 CUWCC  
 11/30/2004

Year:  
**2004**

### A. Service Area Population Information:

1. Total service area population 98700

### 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	23803	17029.52	0	0
2. Multi-Family	996	2235.86	0	0
3. Commercial	754	1940.29	0	0
4. Industrial	160	479.84	0	0
5. Institutional	75	553.71	0	0
6. Dedicated Irrigation	259	1121.73	0	0
7. Recycled Water	212	1841.04	0	0
8. Other	26	66.32	0	0
9. Unaccounted	NA	1082.08	NA	0
<b>Total</b>	<b>26285</b>	<b>26350.39</b>	<b>0</b>	<b>0</b>
	Metered		Unmetered	

Reported as of 7/1

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

Reporting Unit: **Walnut Valley Water District**      BMP Form Status: **100% Complete**      Year: **2004**

### A. Implementation

- 1. Based on your signed MOU date, 11/14/1991, your Agency STRATEGY DUE DATE is: 11/13/1993
- 2. Has your agency developed and implemented a targeting/ marketing strategy for SINGLE-FAMILY residential water use surveys? no
  - a. If YES, when was it implemented?
- 3. Has your agency developed and implemented a targeting/ marketing strategy for MULTI-FAMILY residential water use surveys? no
  - a. If YES, when was it implemented?

### B. Water Survey Data

<b>Survey Counts:</b>	<b>Single Family Accounts</b>	<b>Multi-Family Units</b>
1. Number of surveys offered:	0	0
2. Number of surveys completed:	0	0

### Indoor Survey:

- 3. Check for leaks, including toilets, faucets and meter checks yes      yes
- 4. Check showerhead flow rates, aerator flow rates, and offer to replace or recommend replacement, if necessary yes      yes
- 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 yes      yes

### Outdoor Survey:

- 6. Check irrigation system and timers yes      no
- 7. Review or develop customer irrigation schedule yes      no
- 8. Measure landscaped area (Recommended but not required for surveys) yes      no
- 9. Measure total irrigable area (Recommended but not required for surveys) yes      no
- 10. Which measurement method is typically used (Recommended but not required for surveys) Odometer Wheel
- 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? no      no
  - a. If yes, in what form are surveys tracked?

b. Describe how your agency tracks this information.

### C. Water Survey Program Expenditures

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

The Walnut Valley Water District filed a cost-effectiveness analysis to exempt the District from this BMP. The cost-effectiveness analysis was submitted on November 25, 2002.

Reported as of 7/1

**BMP 02: Residential Plumbing Retrofit**

Reporting Unit: **Walnut Valley Water District**      BMP Form Status: **100% Complete**      Year: **2004**

**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? yes

3. Estimated percent of single-family households with low-flow showerheads: 95%

4. Has your agency satisfied the 75% saturation requirement for multi-family housing units? yes

5. Estimated percent of multi-family households with low-flow showerheads: 95%

6. If YES to 2 OR 4 above, please describe how saturation was determined, including the dates and results of any survey research.

The Walnut Valley Water District participated in the AWWARF Residential End Uses of Water Study and the data collected for this study shows an average showerhead flow rate of 2.09 gpm for homes within the District's service area.

**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? 7/1/1989

b. Describe your targeting/ marketing strategy.

Free showerheads and toilet tank displacement devices were offered in conjunction with previous home water use survey programs advertised to our consumers in the District's bimonthly newsletter. During this reporting period the District distributed 402 showerheads to its customers.

<b>Low-Flow Devices Distributed/ Installed</b>	<b>SF Accounts</b>	<b>MF Units</b>
2. Number of low-flow showerheads distributed:	402	0
3. Number of toilet-displacement devices distributed:	0	0
4. Number of toilet flappers distributed:	0	0
5. Number of faucet aerators distributed:	0	0
6. Does your agency track the distribution and cost of low-flow devices?		no

a. If YES, in what format are low-flow devices tracked?

b. If yes, describe your tracking and distribution system :

**C. Low-Flow Device Distribution Expenditures**

	<b>This Year</b>	<b>Next Year</b>
1. Budgeted Expenditures	0	0
2. Actual Expenditures	904	

**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**

The Walnut Valley Water District filed a cost-effectiveness analysis to exempt the District from this BMP. The cost-effectiveness analysis was submitted on November 25, 2002.

Reported as of 7/1

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

Reporting Unit:	BMP Form Status:	Year:
<b>Walnut Valley Water District</b>	<b>100% Complete</b>	<b>2004</b>

**A. Implementation**

- |  |       |
|--|-------|
| 1. Has your agency completed a pre-screening system audit for this reporting year?   | yes   |
| 2. If YES, enter the values (AF/Year) used to calculate verifiable use as a percent of total production:                                   |       |
| a. Determine metered sales (AF)  | 25268 |
| b. Determine other system verifiable uses (AF)   | 12    |
| c. Determine total supply into the system (AF)   | 26350 |
| d. Using the numbers above, if (Metered Sales + Other Verifiable Uses) / Total Supply is < 0.9 then a full-scale system audit is required. | 0.96  |
| 3. Does your agency keep necessary data on file to verify the values used to calculate verifiable uses as a percent of total production?   | yes   |
| 4. Did your agency complete a full-scale audit during this report year?  | no    |
| 5. Does your agency maintain in-house records of audit results or the completed AWWA audit worksheets for the completed audit?             | yes   |
| 6. 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.    | 368 |
| 2. Number of miles of distribution system line surveyed. | 0   |

**C. System Audit / Leak Detection Program Expenditures**

	<b>This Year</b>	<b>Next Year</b>
1. Budgeted Expenditures	0	0
2. Actual Expenditures	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**



Reported as of 7/1

## BMP 05: Large Landscape Conservation Programs and Incentives

Reporting Unit:  
**Walnut Valley Water  
 District**

BMP Form Status:  
**100% Complete**

Year:  
**2004**

### A. Water Use Budgets

- |  |     |
|--|-----|
| 1. Number of Dedicated Irrigation Meter Accounts:  | 259 |
| 2. Number of Dedicated Irrigation Meter Accounts with Water Budgets:                       | 0   |
| 3. Budgeted Use for Irrigation Meter Accounts with Water Budgets (AF):                     | 0   |
| 4. Actual Use for Irrigation Meter Accounts with Water Budgets (AF):                       | 0   |
| 5. Does your agency provide water use notices to accounts with budgets each billing cycle? | no  |

### B. Landscape Surveys

- |  |    |
|--|----|
| 1. Has your agency developed a marketing / targeting strategy for landscape surveys? | no |
| a. If YES, when did your agency begin implementing this strategy?                    |    |
| b. Description of marketing / targeting strategy:                                    |    |
| 2. Number of Surveys Offered.  | 0  |
| 3. Number of Surveys Completed.  | 0  |
| 4. Indicate which of the following Landscape Elements are part of your survey:       |    |
| a. Irrigation System Check   | no |
| b. Distribution Uniformity Analysis  | no |
| c. Review / Develop Irrigation Schedules   | no |
| d. Measure Landscape Area  | no |
| e. Measure Total Irrigable Area  | no |
| f. Provide Customer Report / Information   | no |
| 5. Do you track survey offers and results?   | no |
| 6. Does your agency provide follow-up surveys for previously completed surveys?      | no |
| 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. Does your agency provide mixed-use accounts with landscape budgets? | no  |
| 2. Number of CII mixed-use accounts with landscape budgets.   | 0   |
| 3. Do you offer landscape irrigation training?  | yes |
| 4. Does your agency offer financial incentives to improve   | no  |

landscape water use efficiency?

<b>Type of Financial Incentive:</b>	<b>Budget (Dollars/Year)</b>	<b>Number Awarded to Customers</b>	<b>Total Amount Awarded</b>
-------------------------------------	------------------------------	------------------------------------	-----------------------------

- a. Rebates
- b. Loans
- c. Grants

5. Do you provide landscape water use efficiency information to new customers and customers changing services?	yes
--	-----

a. If YES, describe below:

The District provides the following information to new and existing consumers to educate them on the importance of landscape water use efficiency: 1. The Story of Drinking Water 2. Water Conservation at Home

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. Landscape Conservation Program Expenditures**

	<b>This Year</b>	<b>Next Year</b>
1. Budgeted Expenditures	0	2800
2. Actual Expenditures	6680	

**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**

During this reporting period the District purchased spatial information that it will incorporate into its GIS system for computation of water use budgets.

Reported as of 7/1

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

Reporting Unit: **Walnut Valley Water District**      BMP Form Status: **100% Complete**      Year: **2004**

### A. Implementation

1. Do any energy service providers or waste water utilities in your service area offer rebates for high-efficiency washers? yes

a. If YES, describe the offerings and incentives as well as who the energy/waste water utility provider is.

Each calendar year the Southern California Gas Company offers a rebate program to its customers on a first-come first-served basis. Customers can obtain a \$75 rebate for the purchase of a Tier 1 high-efficiency washer or a \$125 rebate for the purchase of a Tier 2 high-efficiency washer.

2. Does your agency offer rebates for high-efficiency washers? yes

3. What is the level of the rebate? 100

4. Number of rebates awarded. 140

### B. Rebate Program Expenditures

	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? yes

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."

Although the District does not directly provide rebate money for this program, Walnut Valley Water District customers are able to receive a \$100 rebate through a program managed by Three Valleys Municipal Water District. This program is co-sponsored by the State Department of Water Resources, Metropolitan Water District, and U.S. Bureau of Reclamation.

### D. Comments

Reported as of 7/1

### BMP 07: Public Information Programs

Reporting Unit: **Walnut Valley Water District**      BMP Form Status: **100% Complete**      Year: **2004**

#### A. Implementation

1. Does your agency maintain an active public information program to promote and educate customers about water conservation? yes

a. If YES, describe the program and how it's organized.

The District conducts the following programs to promote and educate customers about water conservation: 1. District Newsletter, Water Line, is distributed to every District customer two times each year. 2. On-Hold Message: Suggests ways to conserve and offers free water conservation brochures and materials to help consumers conserve. 3. Public Events: District staffs a booth at numerous community events throughout the year to distribute free conservation brochures and materials to consumers. 4. Water Bills: Shows water usage comparisons to customers. 5. Billing Insert: Billing inserts are provided in monthly water bills ten times per year. 6. Paid Adverstising: Print water conservation ads in local school and community publications. 7. Banners that display conservation message. 8. Parades where District representatives hand out yo-yos, sponges, etc. that have a water conservation message 9. Open House: Approximately 700 customers attended this event. Numerous displays were set up and information booths to pass out water conservation information and items such as showerheads, dye tablets, and pistol grip hose nozzles to District customers. 10. Chamber mixer. 10. Prepared new customer brochure during this reporting period. 11. Offered a series of residential landscape and irrigation classes that 56 customers attended.

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

Public Information Program Activity	Yes/No	Number of Events
a. Paid Advertising	yes	8
b. Public Service Announcement	no	0
c. Bill Inserts / Newsletters / Brochures	yes	13
d. Bill showing water usage in comparison to previous year's usage	yes	
e. Demonstration Gardens	no	
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

	This Year	Next Year
1. Budgeted Expenditures	80000	60000
2. Actual Expenditures	82550	

#### 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**

Reported as of 7/1

### BMP 08: School Education Programs

Reporting Unit:  
**Walnut Valley Water District**

BMP Form Status:  
**100% Complete**

Year:  
**2004**

#### A. Implementation

1. Has your agency implemented a school information program to promote water conservation? yes

2. Please provide information on your 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	25	2273	0
Grades 4th-6th	yes	26	2369	0
Grades 7th-8th	yes	0	0	0
High School	yes	6	180	0

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

4. When did your Agency begin implementing this program? 7/1/1990

#### B. School Education Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	55000	55000
2. Actual Expenditures	38472	

#### 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

School education programs for this reporting period include: 19 theater performances at 10 schools reaching 3,844 students with the National Theatre for Children's presentation of "The Water Pirates of Neverland" and grade appropriate materials. 3rd-5th grade poster contest reaching 733 students in 30 classes. High school essay contest with 13 entries from 6 classes. Water education presentations to 65 K-3rd grade students in 2 classes.

Reported as of 7/1

### BMP 09: Conservation Programs for CII Accounts

Reporting Unit:  
**Walnut Valley Water District**

BMP Form Status:  
**100% Complete**

Year:  
**2004**

#### 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? yes

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	yes	yes	yes
g. Customer report identifying recommended efficiency measures, paybacks and agency incentives	yes	yes	yes

Agency CII Customer Incentives	Budget (\$/Year)	No. Awarded to Customers	Total \$ Amount Awarded
h. Rebates	0	19	0
i. Loans	0	0	0
j. Grants	0	0	0
k. Others	0	5	0

---

## Option B: CII Conservation Program Targets

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5. Does your agency track CII program interventions and water savings for the purpose of complying with BMP 9 under this option? no
6. Does your agency document and maintain records on how savings were realized and the method of calculation for estimated savings?
7. Estimated annual savings (AF/yr) from site-verified actions taken by agency since 1991.
8. Estimated annual savings (AF/yr) from non-site-verified actions taken by agency since 1991.

### 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

District consumers have been able to participate in CII survey programs in the past that consist of a site visit, an evaluation of customer water use, and a report identifying recommended efficiency measures. Currently, CII customers are eligible to receive rebate money to replace inefficient fixtures in conjunction with Metropolitan Water District's Sav-a-Buc program. Under this program, 5 waterbrooms were distributed to local fast food restaurants and rebates were processed for 19 commercial high efficiency clothes washers. Existing customers have been directed to call a toll-free telephone number to obtain information about this program.

Reported as of 7/1

### BMP 09a: CII ULFT Water Savings

Reporting Unit: **Walnut Valley Water District**      BMP Form Status: **100% Complete**      Year: **2004**

1. Did your agency implement a CII ULFT replacement program in the reporting year? No  
 If No, please explain why on Line B. 10.

#### A. Targeting and Marketing

1. What basis does your agency use to target customers for participation in this program?  
 Check all that apply.
  - a. Describe which method you found to be the most effective overall, and which was the most effective per dollar expended.
  
2. How does your agency advertise this program? Check all that apply.
  - a. Describe which method you found to be the most effective overall, and which was the most effective per dollar expended.

#### B. Implementation

1. Does your agency keep and maintain customer participant information? (Read the Help information for a complete list of all the information for this BMP.)
2. Would your agency be willing to share this information if the CUWCC did a study to evaluate the program on behalf of your agency?
3. What is the total number of customer accounts participating in the program during the last year ?

CII Subsector	Number of Toilets Replaced			
	Standard Gravity Tank	Air Assisted	Valve Floor Mount	Valve Wall Mount
4.				
a. Offices				
b. Retail / Wholesale				
c. Hotels				
d. Health				
e. Industrial				
f. Schools: K to 12				
g. Eating				
h. Government				
i. Churches				
j. Other				

- 5. Program design.
- 6. Does your agency use outside services to implement this program?
  - a. If yes, check all that apply.
- 7. Participant tracking and follow-up.
- 8. Based on your program experience, please rank on a scale of 1 to 5, with 1 being the least frequent cause and 5 being the most frequent cause, the following reasons why customers refused to participate in the program.
  - a. Disruption to business
  - b. Inadequate payback
  - c. Inadequate ULFT performance
  - d. Lack of funding
  - e. American's with Disabilities Act
  - f. Permitting
  - g. Other. Please describe in B. 9.
- 9. Please describe general program acceptance/resistance by customers, obstacles to implementation, and other issues affecting program implementation or effectiveness.
- 10. Please provide a general assessment of the program for this reporting year. Did your program achieve its objectives? Were your targeting and marketing approaches effective? Were program costs in line with expectations and budgeting?

Although the District did not implement and manage a CII ULFT program during the reporting year, District staff did direct CII customers to Metropolitan Water District's Sav-a-Buc program so they could obtain rebate money to replace older style toilets.

**C. Conservation Program Expenditures for CII ULFT**

1. CII ULFT Program: Annual Budget & Expenditure Data

	<b>Budgeted</b>	<b>Actual Expenditure</b>
a. Labor		
b. Materials		
c. Marketing & Advertising		
d. Administration & Overhead		
e. Outside Services		
f. Total	0	0

2. CII ULFT Program: Annual Cost Sharing

- a. Wholesale agency contribution
- b. State agency contribution
- c. Federal agency

contribution  
d. Other contribution  
e. Total

0

**D. Comments**

Reported as of 7/1

**BMP 11: Conservation Pricing**

Reporting Unit:  
**Walnut Valley Water District**

BMP Form  
 Status:  
**100% Complete**

Year:  
**2004**

**A. Implementation****Rate Structure Data Volumetric Rates for Water Service by Customer Class****1. Residential**

a. Water Rate Structure	Uniform
b. Sewer Rate Structure	Service Not Provided
c. Total Revenue from Volumetric Rates	\$13630086
d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue Sources	\$3216436

**2. Commercial**

a. Water Rate Structure	Uniform
b. Sewer Rate Structure	Service Not Provided
c. Total Revenue from Volumetric Rates	\$1372738
d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue Sources	\$344361

**3. Industrial**

a. Water Rate Structure	Uniform
b. Sewer Rate Structure	Service Not Provided
c. Total Revenue from Volumetric Rates	\$339483
d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue Sources	\$84009

**4. Institutional / Government**

a. Water Rate Structure	Uniform
b. Sewer Rate Structure	Service Not Provided
c. Total Revenue from Volumetric Rates	\$391745
d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue Sources	\$62069

**5. Irrigation**

a. Water Rate Structure	Uniform
b. Sewer Rate Structure	Service Not Provided
c. Total Revenue from Volumetric Rates	\$793614
d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue Sources	\$151477

**6. Other**

a. Water Rate Structure	Uniform
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b. Sewer Rate Structure	Service Not Provided
c. Total Revenue from Volumetric Rates	\$95363
d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue Sources	\$599820

### **B. Conservation Pricing Program Expenditures**

	<b>This Year</b>	<b>Next Year</b>
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**

Total revenue under item 6 for Other includes revenue from construction water and from fire protection.

Reported as of 7/1

**BMP 12: Conservation Coordinator**

Reporting Unit:  
**Walnut Valley Water  
 District**

BMP Form Status:  
**100% Complete**

Year:  
**2004**

**A. Implementation**

1. Does your Agency have a conservation coordinator? yes
2. Is this a full-time position? yes
3. If no, is the coordinator supplied by another agency with which you cooperate in a regional conservation program ?
4. Partner agency's name:
5. If your agency supplies the conservation coordinator:
  - a. What percent is this conservation coordinator's position? 25%
  - b. Coordinator's Name Denis Hernandez
  - c. Coordinator's Title Director of Administrative Services
  - d. Coordinator's Experience and Number of Years 13 years experience managing and coordinating with consultants numerous conservation programs including ULF toilet programs, CII and single family residential survey programs, the Residential End Use Study, etc.
  - e. Date Coordinator's position was created (mm/dd/yyyy) 12/9/1991
6. Number of conservation staff, including Conservation Coordinator. 2

**B. Conservation Staff Program Expenditures**

	<b>This Year</b>	<b>Next Year</b>
1. Budgeted Expenditures	92731	97656
2. Actual Expenditures	83348	

**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**

Reported as of 7/1

**BMP 13: Water Waste Prohibition**

Reporting Unit:

**Walnut Valley Water  
District**

BMP Form Status:

**100% Complete**

Year:

**2004****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:

The District's Rules and Regulations specifically prohibit water waste. During the 1991 drought, the District adopted a resolution enforcing mandatory water conservation measures.

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 Diamond Bar. City of Walnut. City of West Covina.	City of Diamond Bar - Storm Water & Urban Runoff Pollution Control. City of Walnut - Resolution No. 2949 Supporting Mandatory Water Conservation Measures. Ordinance No. 551 Supporting Water Efficient Landscape and Irrigation. City of West Covina - National Pollution Discharge Elimination Study.
---	---

**B. Implementation**

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

a. Gutter flooding yes

b. Single-pass cooling systems for new connections yes

c. Non-recirculating systems in all new conveyor or car wash systems yes

d. Non-recirculating systems in all new commercial laundry systems yes

e. Non-recirculating systems in all new decorative fountains yes

f. Other, please name no

2. Describe measures that prohibit water uses listed above:

District employees hang a door tag as a warning notice to the consumer. Also, the District may disconnect service for negligent waste or misuse of water.

**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. no
- 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? yes

**C. Water Waste Prohibition Program Expenditures**

	<b>This Year</b>	<b>Next Year</b>
1. Budgeted Expenditures	0	0
2. Actual Expenditures	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**

Reported as of 7/1

### BMP 14: Residential ULFT Replacement Programs

Reporting Unit: **Walnut Valley Water District**      BMP Form Status: **100% Complete**      Year: **2004**

#### A. Implementation

	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

#### Number of Toilets Replaced by Agency Program During Report Year

Replacement Method	SF Accounts	MF Units
2. Rebate	0	0
3. Direct Install	0	0
4. CBO Distribution	625	0
5. Other	0	0
<b>Total</b>	<b>625</b>	<b>0</b>

6. Describe your agency's ULFT program for single-family residences.

Through mass mailing to qualifying single-family residences, the District offers free ULFTs to District consumers each year. The program is managed with the assistance of a contractor and local high school students participate in the work by helping with the paperwork and the distribution of the ULFTs. High school students may also assist in the advertising effort by canvassing from door-to-door. Each of the 4 participating high schools receive \$5 for every old toilet returned.

7. Describe your agency's ULFT program for multi-family residences.

District consumers living in multi-family dwellings are also encouraged to participate in the aforementioned ULFT program.

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

9. 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

	This Year	Next Year
1. Budgeted Expenditures	44000	44000
2. Actual Expenditures	38794	

#### 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



# WALNUT VALLEY WATER DISTRICT



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November 29, 2004

Ms. Mary Ann Dickinson, Executive Director  
California Urban Water Conservation Council  
455 Capitol Mall, Suite 703  
Sacramento, CA 95814

RE: Exemption Request for BMP 1

Dear Ms. Dickinson:

The District is filing a Cost-Effectiveness exemption for BMP 1 for the reporting period July 1, 2004 to June 30, 2006. Based on the attached cost-effectiveness analysis, the District has determined that the cost to implement this BMP exceeds the benefits. Enclosed is printed documentation for this exemption request with an electronic version of this information on a CD-R compact disc.

Should you have any questions or concerns with our exemption filing, please do not hesitate to contact me at (909) 585-1268, Ext. 257.

Very truly yours,

WALNUT VALLEY WATER DISTRICT

Denis R. Hernandez  
Director of Administrative Services

DH:km

## APPENDIX F REFERENCES AND OTHER SUPPORTING DOCUMENTS

### References/Documents:

1. Three Valleys Municipal Water District, Revised Draft Urban Water Management Plan 2005, December 7, 2005
2. Three Valleys Municipal Water District, Preliminary Draft Urban Water Management Plan 2005, October 4, 2005
3. Metropolitan Water District of Southern California, Draft Regional Urban Water Management Plan, September 2005
4. Metropolitan Water District of Southern California, Draft Regional Urban Water Management Plan, May 2005 (First draft)
5. Department of Water Resources, California Water Plan Update 2005
6. Local Agency Formation Commission, Municipal Service Review Draft Report, Water Service-East San Gabriel Valley, Dudek and Associates, May 6, 2005
7. California Department of Water Resources, Guidebook to Assist Water Suppliers in the Preparation of a 2005 Urban Water Management Plan, January 18, 2005
8. Water and Land Use, Planning Wisely for California's Future, K. Johnson and J. Loux, Solano Press Books, September 2004
9. Metropolitan Water District of Southern California, Integrated Water Resources Plan-2003 Update, May 2004
10. Metropolitan Water District of Southern California, Report on Metropolitan's Water Supplies – A Blueprint for Water Reliability, March 25, 2003
11. Metropolitan Water District of Southern California, Annual Progress Report to the California State Legislature - Adaptability: Achievements in Conservation, Recycling and Groundwater Recharge, February 2003.
12. Walnut Valley Water District, Water System Master Plan, Boyle Engineering, December 2002
13. Metropolitan Water District of Southern California, Integrated Water Resources Plan, 2002 Draft
14. Three Valleys Municipal Water District, Urban Water Management Plan 2000, November 5, 2001
15. Walnut Valley Water District, 2000 Urban Water Management Plan
16. City of Pomona Urban Water Management Plan, December 2000
17. Walnut Valley Water District, Recycled Water System Master Plan, CGvL Engineers, December 1999
18. Walnut Valley Water District, 1995 Urban Water Management Plan
19. Walnut Valley Water District, Urban Water Management Plan Update, December 1990
20. Walnut Valley Water District, Water Conservation Plan, June 1985

**APPENDIX G  
DWR REVIEW FOR COMPLETENESS FORM CHECKLIST**

UWMP Act Code	Reference in WVWD 2005 UWMP
Water Code §10620(d) – Agency coordination Section	Chapter 1, pages 1-2
Water Code §10620(e) – UWMP preparation	Chapter 1, page 1
Water Code §10620(f) – Water management tools	Chapter 2, page 4
Water Code §10621(a) – Plan updated in years ending in five and zero	Chapter 1, page 1
Water Code §10621(b) – City and county notification and participation	Chapter 1, pages 1-2
Water Code §10631(a) – Population, climate, demographics, land use	Chapter 2, pages 3-5
Water Code §10631(b) – Current and planned water supplies	Chapter 2, pages 5-6
Water Code §10631(b)(1)-(4) – Groundwater sources	Chapter 2, page 7
Water Code §10631(c) – Supply reliability and vulnerability to seasonal Shortage	Chapter 2, pages 8-9
Water Code §10631(d) – Transfer and exchange opportunities	Chapter 2, page 9
Water Code §10631(e) – Water use by customer type, past, current and Future	Chapter 2, page 9-11
Water Code §10631(f)-(g) – Demand management measures	Chapter 3, pages 12-13
Water Code §10631(h) – Planned water supply projects	Chapter 3, pages 13-14
Water Code §10631(i) – Ocean desalination	Chapter 3, page 14
Water Code §10631(k) – Current or projected supply includes wholesale Water	Chapter 3, pages 14-15
Water Code §10631.5 – Determination of demand management measures Implementation	Chapter 3, pages 12-13
Water Code §10632(a) – Water shortage contingency stages of action	Chapter 4, pages 16-17
Water Code §10632(b) – Estimate of minimum supply for next 3 years	Chapter 4, page 17
Water Code §10632(c) – Catastrophic supply interruption plan	Chapter 4, pages 17-18
Water Code §10632(d)-(f) – Prohibitions, penalties and consumption reduction methods	Chapter 4, pages 18-20
Water Code §10632(g) – Analysis of revenue impacts of reduced sales during shortages	Chapter 4, pages 20-21
Water Code §10632(h)-(i) – Draft ordinance and use monitoring Procedure	Chapter 4, pages 21-22
Water Code §10633 – Recycled water plan coordination	Chapter 5, pages 23-24
Water Code §10633(a)-(c) – Wastewater quantity, quality and current Uses	Chapter 5, pages 24-25
Water Code §10633(d)-(g) – Potential and projected use, optimization plan with incentives	Chapter 5, pages 25-26
Water Code §10634 – Water quality impacts on reliability	Chapter 6, page 27
Water Code §10635 – Water service reliability normal year	Chapter 7, pages 28-29
Water Code §10635(a)-(d) – Projected single-dry year	Chapter 7, pages 29-30
Water Code §10635(a)-(d) – Projected multiple-dry year	Chapter 7, pages 30-35
Water Code §10642, §10644(a), §10645 – Public involvement, file with DWR, plan available to public	Chapters 1 & 8, pages 1-2, & 38