



DIABLO
WATER
DISTRICT

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& Secretary:*
Mike Yeraka

General Counsel
Jeffrey D. Polisner

August 30, 2006

California Department of Water Resources
Office of Water Use Efficiency & Transfers
P.O. Box 942836
Sacramento, CA 94236-0001

Attn: David Todd, Technical Assistance and Outreach Branch

Copy: Kim Rosmaier, DWR Central District Office
(901 P Street, 3rd Floor, Sacramento, CA 95814)

Subject: Diablo Water District
2005 Urban Water Management Plan

Dear Mr. Todd,

The enclosed clarifications are provided regarding the District's 2005 Urban Water Management Plan to address the Department's comments from the "Review for Completeness". We are requesting confirmation that the Department considers the UWMP complete with these clarifications.

The District Board of Directors adopted the UWMP on December 21, 2005.

The enclosed clarifications provide some additional discussion of information in the UWMP, but do not change any of the UWMP findings or recommendations. Therefore, our view is that these clarifications do not constitute an amendment or change to the UWMP that would require additional Board action.

Mr. David Todd
August 30, 2006
Page 2.

Please advise regarding status of completeness. If you have any questions or need additional information, please do not hesitate to contact me at 925-625-6159 or the District's consultant CDM (Lisa House at 925-296-8082).

Sincerely,

Mike Yeraka
General Manager



Enclosure

C: Lisa House, CDM

Diablo Water District Clarifications 2005 Urban Water Management Plan

Below are clarifications for the Diablo Water District (DWD) 2005 Urban Water Management Plan (2005 Plan) dated December 2005. This information is being provided to the Department of Water Resources as part of the “Review for Completeness” of the 2005 Plan.

Institutional/Governmental Water Connections

Section 3 of the 2005 Plan (Table 3-2, page 3-2) provides the projected number of connections for various customer categories, including a combined category for commercial/office/business, industrial, and institutional. Attachment 1 shows the estimated breakdown of projected connections of the combined category into the following components: commercial/business, industrial (heavy), and institutional/government.

Please note that Attachment 1 shows the corrected phased usage for the heavy industrial category from 2010 through 2035. For the heavy industrial category, Table 3-4 of the 2005 Plan (page 3-3) shows the correct Year 2040 total use, but not the correct phasing.

Reliability of Supply - Basis of Water Year Data

Section 6.1, Table 6-1, of the 2005 Plan summarizes the anticipated supply reliability during drought conditions. As discussed in Section 6.1 (pages 6-1 and 6-2), DWD’s primary supply is surface water purchased from the wholesale supplier, Contra Costa Water District (CCWD), and Appendix B contains supply reliability information provided by CCWD.

The surface water supply provided to DWD from CCWD is Central Valley Project (CVP) water from the Delta. Based on the 40/30/30 Sacramento Valley Index, the years shown below can be considered the basis for defining a normal (average) water year, a single (critical) dry water year, and a multiple dry year period.

Type	Base Water Year(s)
Normal (Average) Water Year	1980 (base year used by CCWD) Other more recent normal years occurred in 1993 and 2003.
Single Dry Water Year (critical dry year)	1977
Multiple Dry Water Years (3 consecutive years)	1990-1992

Three-Year Minimum Water Supply: Identification of Driest 3-Year Period

The surface water supply provided to DWD from CCWD is primarily Central Valley Project (CVP) water from the Delta. Based on the 40/30/30 Sacramento Valley Index, the driest historical 3-year periods on record are: 1931-1933; and 1990-1992.

As discussed in Section 9.1 (page 9-1) and explained in Section 6.1 (pages 6-1 and 6-2), no reductions in surface water supply are anticipated over the next five under any drought condition due to the conditions of CCWD's CVP contract and its supplemental supply sources to meet its Board approved reliability goals. In addition, DWD has its own groundwater supply for drought reliability.

Wholesaler Provided Written Availability Projections

Appendix B of DWD's 2005 Plan contains the information provided by CCWD regarding its total demand and supply projections. The supply projections provide a breakdown by supply source. CCWD's total projections are consistent with its 2002 Future Water Supply Study.

DWD is one of CCWD's wholesale customers, and the DWD demand/supply is included as part of CCWD's total projections. Attachment 2 is a letter from CCWD dated June 1, 2005 that provides the DWD demand projection assumptions used in the total CCWD demand/supply projections. The demand assumptions used by CCWD are consistent with (a small amount higher than) the projections in DWD's 2005 Plan. The Attachment 2 letter is contained in an appendix of CCWD's 2005 UWMP, which was available to DWD in draft (October 2005) and final (December 2005) form on the CCWD website.

Recycled Water Comparison of 2000 Projection for 2005 with 2005 Actual Use

As discussed in the 2000 Plan and in the 2005 Plan (Section 5, page 5-2), 100 percent of the wastewater generated in the DWD service area is recycled for agricultural irrigation. The District's 2000 Plan projected that wastewater generation and recycled use by 2005 at 3.4 mgd. Actual 2005 wastewater generation and recycled use was 2.3 mgd.

Supply and Demand Comparison – Multiple Dry Year by Individual Years

Section 7, Table 7-4 (page 7-2) of the City's 2005 Plan provides supply and demand comparisons for a multiple dry year scenario by 5-year interval at the following intervals: 2005, 2010, 2015, 2020, 2025 and 2030. Attachment 3 provides the supply and demand comparisons by individual year for each 5-year intervals to 2025.

Provision of Water Service Reliability Section to Cities/Counties within Service Area

As shown in Section 1-1, Table 1-1, DWD provided a copy of the draft 2005 Plan to the cities, county and other water/wastewater agencies within its regional area (East Contra Costa County). Subsequent to adoption of the final 2005 Plan, each of the agencies listed in Table 1-1 was also sent a copy of the final Plan. The Plan was adopted on December 21, 2005; and mailed out to the agencies on December 27, 2005.

Review of Implementation of 2000 Plan

DWD has implemented and complied with all recommended actions, as described in their 2000 Urban Water Management Plan. During the 5-year period from 2000-2005, it was not necessary to implement the Water Shortage Contingency Plan or Emergency Water Shortage Ordinance.

Demand Management Measures (DMMs)

As described in Section 8 of the 2005 Plan, DWD is currently implementing all applicable DMMs, in conjunction with the conservation programs offered by its wholesale supplier CCWD. CCWD offers conservation programs within both its retail and wholesale area, including the DWD service area. A portion of the raw water purchase price that DWD pays for CCWD surface water supply is allocated for implementation of the water conservation programs.

Attachment 4 provides additional information on DMMs 1, 2, 5, 6, 7, 8, 9 and 14 that are implemented in conjunction with CCWD. The information regarding activities conducted through CCWD is based on information provided in CCWD's 2005 UWMP and by CCWD's Conservation Coordinator regarding specific CCWD activities conducted within the DWD service area. The projected number of activities and expenditures for programs conducted by CCWD for the next 5 years are estimated based on the information available for previous years.

Attachment 5 is an excerpt from CCWD's 2005 UWMP that describes the DMMs applicable to its retail and wholesale areas including the DWD service area. Attachment 6 contains the 2003 and 2004 BMP reports submitted by CCWD to the CUWCC for the wholesale service area including the DWD area.

The remaining DMMs are implemented solely by DWD, as described in DWD's 2005 UWMP. Additional information for DMMs 3, 11, 12, and 13 is provided on the next page to respond to DWR review comments.

<p>DMM 3 – System Water Audits, Leak Detection and Repair</p>	<p><u>Year started:</u> 1986</p> <p><u>Year of last complete audit:</u> 1987- 1990. Based on this audit, DWD replaced the older distribution lines in its downtown area, replaced an oversized industrial meter, and installed detector check meters on all fire service lines. Prior to this replacement project, the annual % of unaccounted-for water had reached as high as 16% in some years. Following the replacement project, the % of unaccounted-for water dropped to about 6% on average.</p> <p><u>Annual Pre-Screening Audit:</u> Pre-screening audit conducted annually to calculate % of unaccounted-for water. If pre-screening audit shows that unaccounted-for water is less than 10% then no additional system audit is done.</p> <p><u>Year of next complete audit:</u> Will be scheduled if average % of unaccounted-for water in the system exceeds 10%</p> <p><u>% of Unaccounted-for Water:</u></p> <p style="padding-left: 40px;"><i>Historic</i> % of unaccounted-for water: Average of 6% per year over last 5 years from 2001 – 2005 (ranges from 4% to 8% per year).</p> <p style="padding-left: 40px;"><i>Projected</i> % of unaccounted-for water: less than 10% per year from 2006 – 2010.</p> <p><u>Leak Detection and Repair Program:</u></p> <p>DWD identifies and repairs leaks (mains, services, hydrants) on an ongoing basis, as needed:</p> <p style="padding-left: 40px;"><u>Projected annual surveys:</u> as needed</p> <p style="padding-left: 40px;"><u>Projected annual repairs:</u> 0.5 – 1 equivalent miles per year (some repairs are hydrants, valves, services)</p> <p style="padding-left: 40px;"><u>Projected annual expenditures:</u> \$80,000 to \$160,000 per year depending on needs (Annual budget amount is \$160,000; actual expenditures range from \$80,000 to \$160,000 per year depending on needs.)</p> <p style="padding-left: 40px;"><u>Projected annual water savings:</u> 50 AFY (estimated amount assuming that the repairs prevent a 1% increase on average in unaccounted-for water)</p> <p><u>Method to evaluate effectiveness of this DMM:</u> Annual audit of % of unaccounted-for water. Goal is to remain below 10%.</p> <p><u>Effect of existing savings on ability to further reduce demand:</u> Goal is to keep unaccounted-for water below 10%. Current percentage is less than 10%. Each 1% reduction in unaccounted-for water (or leak detection/repairs to prevent a 1% increase in unaccounted-for water) saves approximately 50 AF per year.</p>
<p>DMM 11 – Conservation Pricing</p>	<p><u>Year started:</u> 1990</p>
<p>DMM 12 – Water Conservation Coordinator</p>	<p><u>Projected expenditures:</u> \$ 25,000 per year from 2006 – 2010. The \$25,000 includes: 1) DWD's estimated share of the cost of CCWD's full-time coordinator at \$18,000 which was estimated based on DWD's demand as a % of the total demand served by CCWD, plus 2) a part-time percentage of time spent on conservation activities by DWD staff which was estimated as \$7,000 based on 5% of the General Manager's time.</p>
<p>DMM 13 – Water Waste Prohibitions</p>	<p><u>Year started:</u> 1986</p> <p><u>Method to evaluate effectiveness of this DMM:</u> Monthly review of customer utility billings to identify abnormal water use.</p>

LIST OF ATTACHMENTS:

Attachment 1 – Breakdown of Connection Categories for Commercial/Business, Industrial, Institutional

Attachment 2 – Letter from Wholesale Supplier Confirming Demand Assumptions for DWD

Attachment 3 – Demand and Supply Comparison Tables for Multiple Dry Year Scenario by Individual Years

Attachment 4 – Summary Table with DMM Information for Programs Implemented through CCWD: DMMs 1, 2, 5, 6, 7, 8, 9 and 14

Attachment 5 – Section on DMMs from CCWD 2005 UWMP

Attachment 6 – CUWCC BMP Reports for 2003 and 2004 for CCWD Wholesale Area (includes DWD service area)

Attachment 1
Breakdown of Connection Categories for
Commercial/Business, Industrial, Institutional

Attachment 1

Past, Current and Projected Water Deliveries

Water Use Sectors	2000				2005				2010			
	metered		unmetered		metered		unmetered		metered		unmetered	
	# of accounts	Deliveries AFY										
Single family	7,180				8,300	4,880			10,079	5,935		
Multi-family	41				45	138			123	381		
Commercial/business	49				170	15			224	442		
Industrial (heavy)	1				0	0			1	92		
Institutional/gov					10	31			15	123		
Landscape	59				75	107			86	157		
Agriculture												
All customer sectors		4,043										
Total	7,330	4,043	0	0	8,600	5,171			10,528	7,130		

TABLE12 (continued) - Past, Current and Projected Water Deliveries

Water Use Sectors	2015				2020				2025			
	metered		unmetered		metered		unmetered		metered		unmetered	
	# of accounts	Deliveries AFY										
Single family	11,857	6,994			13,636	8,050			15,414	9,106		
Multi-family	201	626			279	869			356	1,111		
Commercial/business	274	872			324	1,298			374	1,725		
Industrial (heavy)	1	184			1	276			1	368		
Institutional/gov	25	215			35	307			45	399		
Landscape	96	209			107	258			118	310		
Agriculture												
other												
Total	12,454	9,100			14,382	11,058			16,308	13,019		

Attachment 2
Letter from Wholesale Supplier
Confirming Demand Assumptions for DWD



**CONTRA COSTA
WATER DISTRICT**

1331 Concord Avenue
P.O. Box H20
Concord, CA 94524
(925) 688-8000 FAX (925) 688-8122

June 1, 2005

Mr. Mike Yeraka
General Manager
Diablo Water District
2107 Main Street
Oakley, CA 94561

Directors
Joseph L. Campbell
President

Elizabeth R. Anello
Vice President

Bette Boatman
John A. Burgh
Karl L. Wandry

Walter J. Bishop
General Manager

Subject: Urban Water Management Plan Update

Dear Mike:

The California Urban Water Management Planning Act (California Water Code Division 6, Part 2.6, Sections 10610 through 10656) requires that each urban water supplier, providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually, shall prepare, update and adopt its urban water management plan (UWMP) at least once every five years. The next urban water management plan is due to the Department of Water Resources by December 31, 2005.

One requirement of the UWMP Act is that agencies that rely on a wholesale agency as a source of supply "shall provide the wholesale agency with water use projections from that agency for that source of water in five-year increments to 20 years or as far as data is available." Enclosed are the projected demands the District is currently assuming for the Diablo Water District. Please review the demand projections and provide any comments or updated information by July 1, 2005.

The District is preparing a summary of relevant data on the reliability of its supply to municipal customers during normal, dry, and multiple dry water years in support of the information required by UWMP Act and for use in our municipal customers' UWMPs. This information will be provided for your information in August 2005. A draft of the District's UWMP will be available for review in October 2005.

Please contact me at (925) 688-8312 or Jeff Quimby, Senior Engineer at (925) 688-8310 if you have any additional questions about the District's Urban Water Management Plan update or the enclosed material.

Sincerely,

Fran Garland
Principal Planner

Enclosure

File: Project #50533100

**Contra Costa Water District
Draft Demand Projections for the 2005 Urban Water Management Plan Update
June 1, 2005**

Demand Projections, Acre-Feet/year	2010	2015	2020	2025	2030
Diablo Water District	8,300	10,200	12,100	13,900	15,700

Please review the demand projections and send any comments or updated information by July 1, 2005 to:

Jeff Quimby
Contra Costa Water District
1331 Concord Avenue
Post Office Box H2O
Concord, CA 94524-2099

Attachment 3
Demand and Supply Comparison
Multiple Dry Year Scenario by Individual Years

**Attachment 3
Supply and Demand Comparison: Multiple Dry Year Scenario**

Table 1 Projected supply during multiple dry year period ending in 2010 - AF Year					
	2006	2007	2008	2009	2010
Supply	8,403	8,403	8,403	8,403	10,082
% of projected normal	100.0%	100.0%	100.0%	100.0%	100.0%

Table 2 Projected demand multiple dry year period ending in 2010 - AFY					
	2006	2007	2008	2009	2010
Demand	5,563	5,955	6,347	6,738	7,130
% of projected normal	100.0%	100.0%	100.0%	100.0%	100.0%

Table 3 Projected Supply and Demand Comparison during multiple dry year period ending in 2010- AF Year					
	2006	2007	2008	2009	2010
Supply totals	8,403	8,403	8,403	8,403	10,082
Demand totals	5,563	5,955	6,347	6,738	7,130
Difference	2,840	2,448	2,056	1,665	2,952
Difference as % of Supply	33.8%	29.1%	24.5%	19.8%	29.3%
Difference as % of Demand	51.0%	41.1%	32.4%	24.7%	41.4%

Table 4 Projected supply during multiple dry year period ending in 2015 - AF Year					
	2011	2012	2013	2014	2015
Supply	10,082	8,821	8,821	10,082	12,881
% of projected normal	100.0%	87.5%	87.5%	100.0%	100.0%

Table 5 Projected demand multiple dry year period ending in 2015 - AFY					
	2011	2012	2013	2014	2015
Demand	7,524	7,918	8,312	8,706	9,100
% of projected normal	100.0%	100.0%	100.0%	100.0%	100.0%

Table 6 Projected Supply and Demand Comparison during multiple dry year period ending in 2015- AF Year					
	2011	2012	2013	2014	2015
Supply totals	10,082	8,821	8,821	10,082	12,881
Demand totals	7,524	7,918	8,312	8,706	9,100
Difference	2,558	903	509	1,376	3,781
Difference as % of Supply	25.4%	10.2%	5.8%	13.6%	29.4%
Difference as % of Demand	34.0%	11.4%	6.1%	15.8%	41.5%

Supply and Demand Comparison: Multiple Dry Year Scenario

Table 7					
Projected supply during multiple dry year period ending in 2020 - AF Year					
	2016	2017	2018	2019	2020
Supply	12,881	11,202	11,202	12,881	14,562
% of projected normal	100.0%	87.0%	87.0%	127.8%	100.0%

Table 8					
Projected demand multiple dry year period ending in 2020 - AFY					
	2016	2017	2018	2019	2020
Demand	9,492	9,883	10,275	10,666	11,058
% of projected normal	100.0%	100.0%	100.0%	100.0%	100.0%

Table 9					
Projected Supply and Demand Comparison during multiple dry year period ending in 2020- AF Year					
	2016	2017	2018	2019	2020
Supply totals	12,881	11,202	11,202	12,881	14,562
Demand totals	9,492	9,883	10,275	10,666	11,058
Difference	3,389	1,319	927	2,215	3,504
Difference as % of Supply	26.3%	11.8%	8.3%	17.2%	24.1%
Difference as % of Demand	35.7%	13.3%	9.0%	20.8%	31.7%

Table 10					
Projected supply during multiple dry year period ending in 2025 - AF Year					
	2021	2022	2023	2024	2025
Supply	14,562	12,884	12,884	14,562	17,361
% of projected normal	100.0%	88.5%	88.5%	100.0%	100.0%

Table 11					
Projected demand multiple dry year period ending in 2025 - AFY					
	2021	2022	2023	2024	2025
Demand	11,450	11,842	12,235	12,627	13,019
% of projected normal	100.0%	100.0%	100.0%	100.0%	100.0%

Table 12					
Projected Supply and Demand Comparison during multiple dry year period ending in 2025- AF Year					
	2021	2022	2023	2024	2025
Supply totals	14,562	12,884	12,884	14,562	17,361
Demand totals	11,450	11,842	12,235	12,627	13,019
Difference	3,112	1,042	649	1,935	4,342
Difference as % of Supply	21.4%	8.1%	5.0%	13.3%	25.0%
Difference as % of Demand	27.2%	8.8%	5.3%	15.3%	33.4%

Attachment 4
Summary Table with DMM Information for DWD
For Programs Implemented through CCWD:
DMM's 1, 2, 5, 6, 7, 8, 9, and 14

Attachment 4
Summary of DMM Implementation in Conjunction with CCWD Programs: DMMs 1, 2, 5, 6, 7, 8, 9, and 14

<i>Demand Management Measure (DMM)</i>	<i>Year Started</i>	<i>Actual Average Number per Year from 2003 through 2005</i>	<i>Projected Average Number per Year from 2006 through 2010 (See Footnote 1)</i>	<i>Estimated DWD Share of Projected Average Annual Expenditures from 2006 through 2010 (\$ per Year) (See Footnote 2)</i>	<i>Projected Average Annual Savings from 2006 through 2010 (AF per Year) (See Footnote 3)</i>	<i>Methods to Evaluate Effectiveness (applicable to all DMMs in this table)</i>	<i>Effect of Existing Savings on Ability to Further Reduce Demand (applicable to all DMMs in this table)</i>																																																																																																																																																																																																						
1 – Residential Water Surveys																																																																																																																																																																																																													
SF (single family)	1988	4	4	\$5,000	1	Monthly evaluation of water billings for abnormally high water use in order to identify and audit problem accounts. Periodic review (typically on an annual basis) of unit water use on a per meter basis for the various customer types. The review shows whether unit use is steady, declining or increasing; which indicates whether the conservation measures are effective.	As the percentage of structural retrofits implemented becomes higher, it may become more difficult to achieve additional long-term conservation savings. The District was relatively small prior to 1992, and is rapidly growing. The substantial new growth since 1992 has been subject to the new conservation-oriented requirements. Over time, most customers will have low water use fixtures due to new construction or repair / remodeling of older structures. However, during droughts or shortages, it is expected that customers will still respond to public requests to reduce demand on a temporary basis. In addition, new water saving technologies or devices may be developed in the future that may provide opportunities for future savings.																																																																																																																																																																																																						
MF (multi-family)		0	0					2 – Residential Plumbing Retrofits								# of pre 1992 SF accounts = 5,000		# of pre-1992 MF accounts = 40						SF Devices	1988	40	40	\$1,000	2	MF Devices	0	0	5 – Large Landscape Conservation								# of landscape accounts = 75		# with budgets = unknown (estimated as 7, which is 10%)						# of CII accounts = 180		# with surveys = unknown (estimated as 18, which is 10%)						Surveys	1990	1	1	\$4,500	3	6 – Washing Machine Rebates								\$ per rebate = \$50								SF	2000	100	100	\$5,000	6	MF	0	0	7 – Public Information Programs (provided by CCWD for their entire retail and wholesale area including DWD service area)								Paid Advertising	1990	12	12	\$6,000	NA	Bill Inserts, Brochures, Newsletter	12	12	Demonstration Gardens	2	2	Special Events, Media Events	2	2	Speaker's Bureau	60 total (3 in DWD area)	60 total (3 in DWD area)	8 – School Education Programs								CCWD conducts these programs using materials that meet state education framework requirements. Number of class presentations in DWD area estimated based on the ratio of DWD demand to total CCWD demand.								Grades K-3	1980	135 total (5 in DWD area)	135 total (5 in DWD area)	\$9,000	NA	Grades 4-6	200 total (10 in DWD area)	200 total (10 in DWD area)	Grades 7-8	13 total (1 in DWD area)	13 total (1 in DWD area)	High School	5 total (1 in DWD area)	5 total (1 in DWD area)	9 – CII Conservation								Were incentives provided? Yes in the form of rebates, e.g., pre-rinse sprayers.								Surveys	1990	1	1	\$7,000	1	Follow-up Visits	0	0	14 - Residential ULFT								# of pre 1992 SF accounts = 5,000		# of pre-1992 MF accounts = 40						Toilet retrofit on resale ordinance in DWD service area: No								SF Distribution	1994	55	55	\$7,500	12	SF Rebates	0	0	MF Distribution	0	0
2 – Residential Plumbing Retrofits																																																																																																																																																																																																													
# of pre 1992 SF accounts = 5,000		# of pre-1992 MF accounts = 40																																																																																																																																																																																																											
SF Devices	1988	40	40	\$1,000	2																																																																																																																																																																																																								
MF Devices		0	0					5 – Large Landscape Conservation								# of landscape accounts = 75		# with budgets = unknown (estimated as 7, which is 10%)						# of CII accounts = 180		# with surveys = unknown (estimated as 18, which is 10%)						Surveys	1990	1	1	\$4,500	3	6 – Washing Machine Rebates								\$ per rebate = \$50								SF	2000	100	100	\$5,000	6	MF	0	0	7 – Public Information Programs (provided by CCWD for their entire retail and wholesale area including DWD service area)								Paid Advertising	1990	12	12	\$6,000	NA	Bill Inserts, Brochures, Newsletter	12	12	Demonstration Gardens	2	2	Special Events, Media Events	2	2	Speaker's Bureau	60 total (3 in DWD area)	60 total (3 in DWD area)	8 – School Education Programs									CCWD conducts these programs using materials that meet state education framework requirements. Number of class presentations in DWD area estimated based on the ratio of DWD demand to total CCWD demand.								Grades K-3	1980	135 total (5 in DWD area)	135 total (5 in DWD area)	\$9,000	NA	Grades 4-6	200 total (10 in DWD area)	200 total (10 in DWD area)	Grades 7-8	13 total (1 in DWD area)	13 total (1 in DWD area)	High School	5 total (1 in DWD area)	5 total (1 in DWD area)	9 – CII Conservation								Were incentives provided? Yes in the form of rebates, e.g., pre-rinse sprayers.								Surveys	1990	1	1	\$7,000	1	Follow-up Visits	0	0	14 - Residential ULFT								# of pre 1992 SF accounts = 5,000		# of pre-1992 MF accounts = 40						Toilet retrofit on resale ordinance in DWD service area: No								SF Distribution	1994	55	55	\$7,500	12	SF Rebates	0	0	MF Distribution	0	0	MF Rebates	0	0																					
5 – Large Landscape Conservation																																																																																																																																																																																																													
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MF		0	0					7 – Public Information Programs (provided by CCWD for their entire retail and wholesale area including DWD service area)								Paid Advertising	1990	12	12	\$6,000	NA	Bill Inserts, Brochures, Newsletter	12	12	Demonstration Gardens	2	2	Special Events, Media Events	2	2	Speaker's Bureau	60 total (3 in DWD area)	60 total (3 in DWD area)	8 – School Education Programs								CCWD conducts these programs using materials that meet state education framework requirements. Number of class presentations in DWD area estimated based on the ratio of DWD demand to total CCWD demand.								Grades K-3	1980	135 total (5 in DWD area)	135 total (5 in DWD area)	\$9,000	NA	Grades 4-6	200 total (10 in DWD area)	200 total (10 in DWD area)	Grades 7-8	13 total (1 in DWD area)	13 total (1 in DWD area)	High School	5 total (1 in DWD area)	5 total (1 in DWD area)	9 – CII Conservation								Were incentives provided? Yes in the form of rebates, e.g., pre-rinse sprayers.								Surveys	1990	1	1	\$7,000	1	Follow-up Visits	0	0	14 - Residential ULFT								# of pre 1992 SF accounts = 5,000		# of pre-1992 MF accounts = 40						Toilet retrofit on resale ordinance in DWD service area: No								SF Distribution	1994	55	55	\$7,500	12	SF Rebates	0	0	MF Distribution	0	0	MF Rebates	0	0																																																																													
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Note: The majority of residential development in the District is single family residential. There is very little multiple-family residential development.

- (1) Projected average number per year assumes similar implementation over the next 5 years as recent years.
- (2) Projected average annual expenditures per year are for DWD's estimated share of the CCWD expenditures, since a portion of DWD's purchase cost of CCWD supply is allocated for implementation of conservation programs. The DWD estimated share is based on the ratio of DWD demand as a % of CCWD's total municipal wholesale demand. The estimate assumes similar costs as in recent years based on an estimated average cost for the projected activities derived from available wholesale expenditures information in the CCWD 2005 UWMP. DWD demand is about 10% of CCWD's total wholesale raw water demand.
- (3) Projected average annual savings per year assumes similar savings as in recent years based on an estimated average savings for the projected activities derived from available savings estimate information in the CCWD 2005 UWMP. Average per activity estimated as CCWD cumulative estimated savings for each activity for their entire area divided by the cumulative number implemented for the entire area.

Attachment 5

Section on DMMs from CCWD 2005 UWMP

Note: CCWD conservation programs cover both their retail and wholesale areas. The DWD service area is within the wholesale area. Table 2-5 (on page 31 of Attachment 4) summarizes program activities for the last 5 years and annual/cumulative savings for the entire retail area and wholesale area where CCWD offers conservation programs.

Step Seven. Demand Management Measures

10631 (f) *Provide a description of the supplier's water demand management measures. This description shall include all of the following:*

(1) *A description of each water demand management measure that is currently being implemented, or scheduled for implementation, including the steps necessary to implement any proposed measures, including, but not limited to, all of the following:*

(2) *A schedule of implementation for all water demand management measures proposed or described in the plan.*

(3) *A description of the methods, if any, that the supplier will use to evaluate the effectiveness of water demand management measures implemented or described under the plan.*

(4) *An estimate, if available, of existing conservation savings on water use within the supplier's service area, and the effect of the savings on the supplier's ability to further reduce demand.*

(g) *An evaluation of each water demand management measure listed in paragraph (1) of subdivision (f) that is not currently being implemented or scheduled for implementation. In the course of the evaluation, first consideration shall be given to water demand management measures, or combination of measures, that offer lower incremental costs than expanded or additional water supplies. This evaluation shall do all of the following:*

(j) *Urban water suppliers that are members of the California Urban Water Conservation Council and submit annual reports to that council in accordance with the "Memorandum of Understanding Regarding Urban Water*

Conservation in California," dated September 1991, may submit the annual reports identifying water demand management measures currently being implemented, or scheduled for implementation, to satisfy the requirements of subdivisions (f) and (g).

CCWD is a signatory to the Memorandum of Understanding Regarding Urban Water Conservation in California (MOU) developed by the California Urban Water Conservation Council (CUWCC). The District implements the 14 Best Management Practices (BMPs), as prescribed in the MOU. As described in section 10631 (j) of the Water Code: *“Urban water suppliers that are members of the CUWCC and submit annual reports to that council in accordance with the MOU may submit the annual reports identifying water demand management measures currently being implemented or scheduled for implementation, to satisfy the requirements of subdivision (f) and (g).”*

To meet the requirements of the water code, the following BMP reports were submitted to the CUWCC and are included in Appendix C:

- CCWD Retail BMP Report- FY04
- CCWD Wholesale BMP Report- FY04
- CCWD Retail BMP Report- FY03
- CCWD Wholesale BMP Report- FY03

The following sections are included to provide the reader with an overview of the District's Water Conservation Program:

Program Description

CCWD's Water Conservation Program fulfills the mission of the District by reducing long-term water demand in an environmentally responsible and cost effective manner. The long-term water savings goal for the Conservation Program is to reduce demand by approximately 8,000 acre-feet in the year 2040, which is consistent with the FWSS. This amount is in addition to expected conservation savings from natural fixture replacement and other non-District conservation activities. CCWD is on track to meet this goal.

CCWD offers water conservation programs throughout its retail and wholesale water service area. Activities in the retail service area are included in the Retail BMP Report, and activities in the wholesale service area are included in the Wholesale BMP Report. The programs listed below are offered by CCWD to both retail and wholesale service area customers.

Since CCWD started its Water Conservation Program in 1988, the program has evolved considerably. In its early years, the program consisted of single-family surveys and showerhead distribution. In 1994, the Ultra Low Flow Toilet (ULFT) replacement program was instituted. The Program now includes surveys for all customer classes and incentive programs for numerous devices. Both surveys and replacement programs have changed over the years to increase the effectiveness of the program and the sustainability of water savings. The Water Conservation Program is comprised of several key elements, each of which targets a specific customer base and satisfies the requirements of specific BMPs. The following section summarizes each of the key program elements.

Conservation Survey Programs

Single Family Surveys

The Single Family Residential Survey Program offers free on-site evaluations of home water use. The survey takes between one to two hours to complete, and includes a thorough review of both interior and landscape water uses; however, the primary focus of the survey is landscape water use. The surveyor inspects each irrigation station, and notes specific problems and suggested repairs or improvements. Precipitation tests are conducted on individual sprinkler stations, and a site-specific monthly irrigation schedule is prepared. The schedule is programmed into the controller and the customer is taught how to adjust the timer. After participating in the program, customers are sent four (4) post cards each year to remind them to adjust their watering schedules and to check their irrigation systems.

Since the inception of the program in 1988, CCWD has conducted more than 11,500 single-family surveys.

Multi-Family Surveys

The Multi-Family Residential Survey Program targets apartment complexes and other multi-family customers. The program is marketed to the highest water-using customers and is implemented in conjunction with the MF ULFT Replacement Program. During the survey, plumbing fixtures are flow tested and high-efficiency fixtures are installed or provided to replace high-volume fixtures, such as showerheads, faucet aerators and toilet flappers. A report is provided to the customer that lists the number and location of leaks found, an inventory of toilets by flush volume, and a list of showerheads, aerators or flappers installed. The customer is also provided information about other CCWD programs, such as the ULFT Distribution Program, Large Landscape Survey Program and Commercial Clothes Washer Program.

Since the inception of the program in 1988, CCWD has conducted more than 29,400 multi-family unit surveys.

Commercial, Institutional and Industrial (CII) Surveys

The CII survey program targets a variety of commercial, institutional and industrial customers. Individual water-using devices are inspected, and customers receive a report listing improvements that can be made to the equipment and to the maintenance of that equipment. Rebates are offered as an incentive to upgrade to more efficient equipment.

Since the inception of the program in 1990, CCWD has conducted more than 1,700 CII surveys.

Large Landscape Surveys

The Large Landscape Survey Program targets the highest landscape water users among commercial, institutional or multi-family customers. The survey includes an inspection of the irrigation system and sprinkler precipitation tests on individual stations. A site-specific irrigation schedule is prepared for the property. Additionally, a report is prepared listing equipment improvements, irrigation schedules, and management changes that would result in more efficient water use. Sites with inefficient irrigation timers or other inefficient irrigation devices are encouraged to participate in the irrigation upgrade program, which offers rebates on select irrigation equipment. After participating in the program, customers are sent four (4) post cards each year to remind them to adjust their watering schedules and to check their irrigation systems.

Since the inception of the program in 1990, CCWD has conducted more than 1,400 large landscape surveys.

Conservation Incentive Programs

Residential ULFT Distribution Program

CCWD offers both single family and multi-family residential customers with Free Ultra Low Flow toilets (ULFTs). The program is marketed directly to customers with homes built prior to 1992 and through the survey programs. Eligible customers receive a voucher and pick up their new ULFT at a specific vendor who contracts with the District. Customers are responsible for

installation and the District conducts random inspections to insure proper installation. Multi-family customers who replace more than six toilets receive free delivery. Prior to the ULFT Distribution Program, the District offered rebates to single-family customers as an incentive to install ULFTs.

Since the inception of the program in 1994, CCWD has replaced more than 34,000 toilets with ULFTs.

CII ULFT Replacement Program

The program targets various commercial and institutional customers either through direct mail, bill inserts, or through the CII Survey Program. Customers are offered a rebate of 100% of the material cost up to \$150 per ULFT. In addition, the District negotiated with local plumbing wholesalers to offer select high quality toilets at wholesale prices to any participant. This assures that toilets installed will have long-term savings and customer satisfaction.

Since the inception of the program in 2000, CCWD has replaced more than 1,500 commercial toilets with ULFTs.

Residential High Efficiency Clothes Washer Rebate Program

CCWD, in coordination with six other water agencies, implemented a Bay Area Regional Clothes Washer Rebate Program. CCWD's program has offered rebates from \$50 to \$100 to residential customers who purchase clothes washers with a minimum water use efficiency, or water factor. The program is marketed primarily through the retail appliance stores. In addition, CCWD markets the program through the CCWD bill insert, the Single Family Survey Program, and through newspaper advertisements.

Since the inception of the program in 2000, CCWD has provided more than 7,500 high efficiency clothes washer rebates.

Rinse & Save - Pre-Rinse Spray Nozzle Replacement Program

The Rinse & Save program is part of a statewide program implemented by the California Urban Water Conservation Council (CUWCC). The program offers and installs free pre-rinse nozzles in restaurants and other food industry businesses. These new nozzles reduce hot water use, which results in lower water and energy bills for the customer.

Since the inception of the program in 2003, CCWD has replaced 584 pre-rinse spray nozzles.

Light Wash- Commercial High Efficiency Clothes Washer Rebate Program

The Light Wash program is part of a PG & E service area program administered by Energy Solutions. CCWD offers \$350 rebates to install commercial grade high efficiency clothes washers in apartment common laundry facilities and in commercial laundromats. Both the program administrator and CCWD market to customers and washer suppliers through direct mail.

Since CCWD began providing rebates in 2000, CCWD has provided 283 commercial clothes washer rebates.

Commercial Equipment and Irrigation Upgrade Rebates

In conjunction with the Commercial and Large Landscape Survey Programs, rebates are offered for select plumbing equipment to encourage customers to upgrade to more efficient water fixtures. The program includes rebates for urinals, cooling tower retrofits, and other water-using fixtures. For landscape water use, the program offers rebates for irrigation timers, sprinkler-to-drip retrofits, rain sensors, and sprinkler head upgrades. Pre- and post-inspections are conducted, and rebates are provided based on the material cost of the equipment.

Other Programs

Large Landscape Water Budgets

The Landscape Water Budget Program is directed at those commercial and multi-family sites with dedicated irrigation water accounts. There are approximately 1,200 such accounts in the Treated Water Service Area (TWSA). Water Budgets are prepared using real-time local evapotranspiration (ET_o) data and actual landscape area measurements obtained through an aerial photo. The data is integrated into a detailed water budget equation, which integrates monthly landscape coefficients, irrigation efficiency, and real-time ET_o. Water Budget site reports are prepared comparing the water budget to actual water use. The program provides participating customers with water budget site reports tailored specifically to their properties. These reports enable the customer to adjust their water use to reflect seasonal weather changes and, therefore, control the costs of their water bills.

Green Business Program

CCWD is a sponsor and a participating agency in the Contra Costa County Green Business Program. The Green Business Program is a partnership of environmental agencies, professional associations, waste management agencies, utilities, and a concerned public, working together to recognize and assist business and government agencies that operate in an environmentally friendly manner.

As part of the program, CCWD evaluates water use efficiency for businesses. Customers receive conservation surveys and are offered incentives to upgrade equipment. CCWD provides survey findings to the Contra Costa Clean Water Program, the lead agency for the Green Business Program.

Public Information Program

The CCWD Public Information Office coordinates with the Water Conservation Office to promote water conservation messages and programs through a variety of media. Publications, website pages, presentations, booths at community events, direct mail pieces, newsletters, newspaper ads, and water education programs are all tools used to promote water conservation.

Water Education Program

The goal of the Water Education Program (WEP) is to teach children the importance of water in our lives. CCWD's WEP educates service-area school students about CCWD's mission to deliver clean, safe water in an environmentally responsible manner. Each year, the CCWD's WEP reaches more than 28,000 service-area students and teachers. All of the programs promote

and reinforce the following goals: recognizing activities that could affect water quality; understanding the connection between health and water quality; understanding the biodiversity of a watershed; and, the importance of water conservation.

Accomplishments

CCWD has actively and consistently implemented a variety of quality water conservation programs since 1988. Table 2-5 lists the water conservation programs and savings estimates for each of the activities. The Annual Savings are the savings that are projected to occur during one year (FY06) as a result of all previous years activities that still have residual savings in that year after depreciation. The Cumulative Savings are the sums of each annual year's savings from the inception of the program.

TABLE 2-5. WATER CONSERVATION PROGRAMS									
	Pre-FY01	FY01	FY02	FY03	FY04	FY05	Total	Annual Savings (AF in FY06)	Cumulative Savings (AF)
SF Surveys	8,587	496	614	563	752	578	11,640	218	3,130
MF Surveys	21,891	2,604	1,120	1,250	1,218	1,374	29,457	249	2,708
CII Surveys	1,187	80	116	103	120	117	1,723	459	4,319
Landscape Surveys	971	82	80	104	107	97	1,441	391	4,481
SF Showerheads	13,711	180	298	276	297	156	14,918	59	803
MF Showerheads	6,768	1,080	208	289	400	184	8,929	27	253
Residential ULFTs	22,812	2,941	1,630	1,976	2,177	2,357	33,856	997	6,964
CII ULFTs	12	80	116	103	120	232	1,532	53	149
SF Washers	89	766	1,538	2,336	918	1,883	7,530	166	470
CII Washers	5	15	22	13	191	37	283	23	53
Pre-Rinse Nozzles	0	0	0	229	118	235	582	102	202
CII Low Flow Urinals	7	47	26	9	18	12	115	2	9
CII Low Flow Faucets	34	27	33	12	22	0	128	1	4
'Smart' Sprinkler Timers	0	0	1	16	16	8	40	19	45
Standard Sprinkler Timers	66	5	2	1	6	1	81	13	117
Drip Retrofit (stations)	19	11	18	0	13	19	80	4	17
Rain Sensors	57	0	0	0	23	0	80	2	20
Sprinklers Replaced	682	63	221	34	1,223	684	2,903	2	7
Total								2,787	23,751

* Note, the activities listed above reflect the total activities conducted in both the retail and wholesale service areas.

CCWD has successfully developed, implemented, and maintained an effective water conservation program since 1988. Current water use levels within CCWD are below pre-drought (mid 80's) levels, despite an increase in service area population of 37% since 1985.

CCWD was the recipient of the U.S. Bureau of Reclamation (USBR) 2003 Commissioner's Water Conservation Award for the Mid-Pacific Region. The award is given to entities that have demonstrated significant accomplishments in improving water use efficiency. CCWD was recognized by USBR for its progressive and successful water conservation program including one of the most accurate, large-scale water budget programs in the State of California.

Beyond the BMPs

CCWD is continually looking for new technologies and opportunities to increase water conservation savings. CCWD uses the BMPs as a guide when designing programs. However, to obtain even more savings, CCWD must go beyond the BMPs. The list below summarizes program elements that go beyond the BMPs.

Single Family Conservation Surveys

CCWD provides a detailed one to two-hour site visit at each home. Every water use is inspected and a detailed report listing suggested improvements is presented to the customer. A site-specific monthly sprinkler schedule is also prepared and CCWD staff program the irrigation timer with the customer. The customer is then taught how to make adjustments to the schedule. After participating in the program, customers are mailed four (4) post cards each year to remind them to adjust their watering schedules and to check their irrigation systems. Although this survey is more time consuming than many traditional surveys, water savings are greater. In a study conducted in 2000, the average survey participant saved more than 20,000 gallons in one year or 55 gallons per day (gpd), the year following the survey. Customers with larger landscapes saved up to 53,000 gallons, or 146 gpd, the year following the survey.

Completed BMPs

Some of the BMPs have on-going commitments and others have a specific activity or water savings goals. For the BMPs that have specific goals, CCWD has met its long-term goal for BMP 1 (MF Surveys), BMP 5 (surveys), BMP 9A (CII ULFTs), and BMP 14 (residential ULFTs). However, CCWD continues to implement these programs to achieve even more savings than prescribed by the BMPs.

Residential High Efficiency Clothes Washer Program

The BMP requires that water agencies offer financial incentives towards the purchase of High Efficiency Clothes Washers if a local energy provider is also offering rebates. Although the local energy provider has not consistently offered rebates, CCWD has had an on-going rebate program for more than five years. In addition, CCWD has partnered with six other Bay Area Water Agencies to provide a Bay Area Regional High Efficiency Clothes Washer Rebate Program. The program offers a tiered rebate to promote the most efficient machines.

High Efficiency Toilets and Urinals

Beginning in FY 07, CCWD will offer incentives for the purchase and installation of high efficiency toilets (HETs) and urinals. The HETs are 1.0 gallon per flush or dual flush toilets (ave. 1.2 gpf). These toilets are 20% more efficient than the standard ULFTs. CCWD hopes to achieve greater savings with these devices and also hopes to initiate market transformation away from ULFTs towards HETs.

In addition to the HETs, CCWD will be offering incentives for the purchase and installation of high efficiency urinals. These fixtures can either be ½ gallon per flush or zero water urinals. Again, the goal is to increase water savings and to initiate market transformation towards these fixtures.

Smart Controllers

CCWD has begun a pilot Smart Controller Rebate Program. This program offers a rebate to commercial and residential customers for the purchase and installation of a new smart controller. Smart controllers are self-adjusting sprinkler timers, which adjust automatically based on real-time local weather changes. This program has a very large savings potential. After the three-year pilot program, water savings and customer satisfaction will be measured to determine continuation of the program.

Attachment 6
CUWCC BMP Reports for 2003 and 2004
For CCWD Wholesale Area
(includes DWD service area)

2003 CUWCC Wholesale Report

Water Supply & Reuse

Reporting Unit: **Contra Costa WD - Wholesale** Year: **2003**

Water Supply Source Information

Supply Source Name	Quantity (AF) Supplied	Supplier or Wholesaler	Supply Type
USBR CVP @ Rock Slough	14620	Imported	Imported
USBR CVP @ Old River	54648	Imported	Imported
Mailard Slough	5352	Local Watershed	Local Watershed
ECCID Water	7650	Local Watershed	Local Watershed
LV Releases	36018	Imported	Imported
Water Transfer	1337	Imported	Imported
Contra Loma Releases	-707	Imported	Imported

Total AF: 118918

Purchaser Information

Name of Agency	Quantity (AF) Supplied	Retailer or Wholesaler
Antioch (Raw)	13133	retail
Martinez (Raw)	5099	retail
Diablo Water District (Raw)	4962	retail
Pittsburg (Raw)	10121	retail
SCWC (Raw)	2629	retail
SCWC (Treated)	68	retail
Brentwood (Treated)	2755	retail

Total AF: 38767

Reported as of 10/1

BMP 03: System Water Audits, Leak Detection and Repair

Reporting Unit: **Contra Costa WD - Wholesale** BMP Form Status: **100% Complete** Year: **2003**

A. Implementation

- Has your agency completed a pre-screening system audit for this reporting year? **yes**
- If YES, enter the values (AF/Year) used to calculate verifiable use as a percent of total production:

a. Determine metered sales (AF)	114441
b. Determine other system verifiable uses (AF)	0
c. Determine total supply into the system (AF)	118884
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

- Does your agency keep necessary data on file to verify the values used to calculate verifiable uses as a percent of total production? **yes**
- Did your agency complete a full-scale audit during this report year? **no**
- Does your agency maintain in-house records of audit results or the completed AWWA audit worksheets for the completed audit? **yes**
- Does your agency operate a system leak detection program? **yes**

a. If yes, describe the leak detection program:

The Contra Costa Canal is continuously surveyed by water tenders and other maintenance personnel for leaks. Leaks are repaired as part of the District's Raw Water Facility Improvement Program.

B. Survey Data

- Total number of miles of distribution system line. **48**
- Number of miles of distribution system line surveyed. **48**

C. System Audit / Leak Detection Program Expenditures

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

D. "At Least As Effective As"

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

Budget and expenditures are included in the overall Operations and Maintenance budget.

Reported as of 10/1

BMP 07: Public Information Programs

Reporting Unit: **Contra Costa WD - Wholesale** 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 Public Information and Conservation Department is responsible for implementing the Districts Public Information Program. This is carried out through a variety of program elements including: legislative affairs; employee communications; external communications with customers, key constituents, decision-makers, public organizations, the news media, and through an active water conservation program. The promotion of water conservation is made through a variety of methods such as direct mailing, paid advertising, bill inserts, the On Tap newsletter, brochures, water-bill message, demonstration gardens, media events and an active speakers bureau. The public information program as well as the water conservation program is carried out through the entire District service area.

- 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	24
b. Public Service Announcement	no	0
c. Bill Inserts / Newsletters / Brochures	yes	16
d. Bill showing water usage in comparison to previous year's usage	yes	
e. Demonstration Gardens	yes	2
f. Special Events, Media Events	yes	4
g. Speaker's Bureau	yes	65
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	51000	0
2. Actual Expenditures	52500	

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

Activities are conducted in both the CCWD Retail Service Area and the Wholesale Service Area. Therefore, the activities listed are the same as in the Retail BMP 7 report. Budget and expenditures reflect 50% of the

actual. The other 50% is listed in the Retail Report.

Reported as of 10/1

BMP 08: School Education Programs

Reporting Unit: **Contra Costa WD - Wholesale** BMP Form Status: **100% Complete** Year: **2003**

A. Implementation

- Has your agency implemented a school information program to promote water conservation? **yes**
- 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	135	9450	4
Grades 4th-6th	yes	173	12110	7
Grades 7th-8th	yes	13	455	0
High School	no	5	140	0

- Did your Agency's materials meet state education framework requirements? **yes**
- When did your Agency begin implementing this program? **07/01/1980**

B. School Education Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	89500	0
2. Actual Expenditures	90000	

C. "At Least As Effective As"

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

Note: The School Education Program is offered throughout the CCWD retail and wholesale service areas. Therefore, the activities reflect those of the entire program. The same data is submitted on the CCWD Retail Report. Budget and expenditures reflect 50% of the actual. The other 50% is listed in the Retail Report

Reported as of 10/1

BMP 10: Wholesale Agency Assistance Programs

Reporting Unit: **Contra Costa WD - Wholesale** BMP Form Status: **100% Complete** Year: **2003**

A. Implementation

1. Financial Support by BMP

BMP	Financial Incentives Offered?	Budgeted Amount	Amount Awarded	Financial Incentives Offered?	Budgeted Amount	Amount Awarded
1	yes	87384	66246	yes	89500	90000
2	yes	0	0	yes	33192	120603
3	No	0	0	yes	0	0
4	No	0	0	No	0	0
5	yes	43886	48646	yes	179363	178991
6	yes	0	47128	No		
7	yes	51000	52500	yes	163908	53444

2. Technical Support

- Has your agency conducted or funded workshops addressing CUWCC procedures for calculating program savings, costs and cost-effectiveness? **No**
- Has your agency conducted or funded workshops addressing retail agencies' BMP implementation reporting requirements? **No**
- Has your agency conducted or funded workshops addressing:
 - ULFT replacement **No**
 - Residential retrofits **yes**
 - Commercial, industrial, and institutional surveys **No**
 - Residential and large turf irrigation **yes**
 - Conservation-related rates and pricing **No**

3. Staff Resources by BMP

Qualified Staff	No. FTE Staff	Qualified Staff	No. FTE Staff

BMP	Available for BMP?	Assigned to BMP	BMP	Available for BMP?	Assigned to BMP
1	yes	3	8	yes	2
2	yes	1	9	yes	1
3	No	0	10	yes	1
4	No	0	11	No	0
5	yes	1	12	yes	1
6	yes	1	13	No	0
7	yes	1	14	yes	1

4. Regional Programs by BMP

BMP	Implementation/Management Program?	BMP	Implementation/Management Program?
1	yes	8	yes
2	yes	9	yes
3	No	10	yes
4	No	11	No
5	yes	12	yes
6	yes	13	No
7	yes	14	yes

B. Wholesale Agency Assistance Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	468870	0
2. Actual Expenditures	478566	

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

The Contra Costa Water District provides conservation services to individual customers in both the treated water service area (Retail) and the raw water service area (Wholesale). Section B reflects an estimated 30% of the total Water Conservation budget and expenditures and 50% of the public information and school education budget and expenditures for bmp 7 and 8. This does not include the budget or expenditures for the Operations and Maintenance Department which implement bmp 3 nor does it include the Finance department budget which implements bmp 11. Section A-1 reflects the following: BMP 1- 30% of Program budget and expenditures; BMP 2- included in BMP 1; BMP 5- 30% of Program budget and expenditures; BMP 6- budget is included in BMP 14 and expenditures are 30% of BMP 6 program expenditures; BMP 7- 50% of program budget and expenditures; BMP 8- 50% of program budget and expenditures; BMP 9- 30% of program budget and expenditures; BMP 10- included in each of the other individual BMPs; BMP 12- 30% of salaries and benefits of Conservation staff; BMP 14- 30% of Conservation Incentive Program Budget (all incentives and rebates) and 30% of Residential ULFT replacements expenditures budget is included the material costs for rebates and distribution in the District wholesale area. NOTE, other expenditures against this budget are shown in BMP 6, 9, and 14.

BMP 11: Conservation Pricing

Reporting Unit: **Contra Costa WD - Wholesale**
 BMP Form Status: **2003 100% Complete**
 Year: **2003**

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

- 1. Residential**
 - a. Water Rate Structure
 - b. Sewer Rate Structure
 - c. Total Revenue from Volumetric Rates \$
 - d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue \$
- 2. Commercial**
 - a. Water Rate Structure Service Not Provided
 - b. Sewer Rate Structure Service Not Provided
 - c. Total Revenue from Volumetric Rates \$0
 - d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue \$0
- 3. Industrial**
 - a. Water Rate Structure Service Not Provided
 - b. Sewer Rate Structure Service Not Provided
 - c. Total Revenue from Volumetric Rates \$0
 - d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue \$0
- 4. Institutional / Government**
 - a. Water Rate Structure Service Not Provided
 - b. Sewer Rate Structure Service Not Provided
 - c. Total Revenue from Volumetric Rates \$0
 - d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue \$0
- 5. Irrigation**
 - a. Water Rate Structure Service Not Provided
 - b. Sewer Rate Structure Service Not Provided
 - c. Total Revenue from Volumetric Rates \$
 - d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue \$
- 6. Other**
 - a. Water Rate Structure Service Not Provided
 - b. Sewer Rate Structure Service Not Provided
 - c. Total Revenue from Volumetric Rates \$17781975

d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue Sources \$0

B. Conservation Pricing Program Expenditures

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

Reported as of 10/1

BMP 12: Conservation Coordinator

Reporting Unit: **Contra Costa WD - Wholesale** 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? 100%
- b. Coordinator's Name Chris Durdon
- c. Coordinator's Title Water Conservation Supervisor
- d. Coordinator's Experience and Number of Years 12
- e. Date Coordinator's position was created (mm/dd/yyyy) 04/30/1991

6. Number of conservation staff, including Conservation Coordinator. 11

B. Conservation Staff Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	179363	0
2. Actual Expenditures	178991	

C. "At Least As Effective As"

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

D. Comments

Staff budget and expenditures includes full time and temporary water conservation staff. The figures do not include staff expenditures from other units such as public information, Operations and Maintenance, and Finance which also contribute to BMP implementation. Budget and expenditures assume 30% of actual in this Wholesale report and 70% in the Retail Report.

Reported as of 10/1

2004 CUWCC Wholesale Report

Water Supply & Reuse

Reporting Unit: **Contra Costa WD - Wholesale** Year: **2004**

Water Supply Source Information

Supply Source Name	Quantity (AF) Supplied	Supply Type
USBR CVP @ Rock Slough	21924	Imported
USBR CVP @ Old River	51486	Imported
Mallard Slough	2035	Local Watershed
LV Releases	29515	Local Watershed
ECCID Water	10580	Imported
Water Transfer	4999	Imported
Contra Loma Release	1112	Imported

Total AF: 121651

Purchaser Information

Name of Agency	Quantity (AF) Supplied	Retailer or Wholesaler
Antioch (Raw)	14162	retail
Martinez (Raw)	5696	retail
Diablo Water District (Raw)	11000	retail
Pittsburg (Raw)	10150	retail
SCWC (Raw)	2704	retail
SCWC (Treated)	57	retail
Brentwood (Treated)	4060	retail

Total AF: 47829

Reported as of 10/1

BMP 03: System Water Audits, Leak Detection and Repair

Reporting Unit: **Contra Costa WD - Wholesale** BMP Form Status: **100% Complete** Year: **2004**

A. Implementation

- Has your agency completed a pre-screening system audit for this reporting year? **yes**
- If YES, enter the values (AF/Year) used to calculate verifiable use as a percent of total production:
 - Determine metered sales (AF) **121087**
 - Determine other system verifiable uses (AF) **0**
 - Determine total supply into the system (AF) **121651**
 - Using the numbers above, if (Metered Sales + Other Verifiable Uses) / Total Supply is < 0.9 then a full-scale system audit is required. **1.00**

- Does your agency keep necessary data on file to verify the values used to calculate verifiable uses as a percent of total production? **yes**
- Did your agency complete a full-scale audit during this report year? **no**
- Does your agency maintain in-house records of audit results or the completed AWWA audit worksheets for the completed audit? **yes**
- Does your agency operate a system leak detection program? **yes**
 - If yes, describe the leak detection program:

The Contra Costa Canal is continuously surveyed by water tenders and other maintenance personnel for leaks. Leaks are repaired as part of the District's Raw Water Facility Improvement Program.

B. Survey Data

- Total number of miles of distribution system line. **48**
- Number of miles of distribution system line surveyed. **48**

C. System Audit / Leak Detection Program Expenditures

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

D. "At Least As Effective As"

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

Budget and expenditures are included in the overall Operations & Maintenance budget.

Reported as of 10/1

BMP 07: Public Information Programs

Reporting Unit: **BMP Form Status: Year:**
Contra Costa WD - Wholesale 100% Complete 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 Public Information and Conservation Department is responsible for implementing the District's Public Information Program. This is carried out through a variety of program elements including: legislative affairs; employee communications; external communications with customers, key constituents, decision-makers, public organizations, the news media, and through an active water conservation program. The promotion of water conservation is made through a variety of methods such as direct mailing, paid advertising, bill inserts, the On Tap newsletter, brochures, water-bill message, demonstration gardens, media events and an active speakers bureau. The public information program as well as the water conservation program is carried out through the entire District service area.

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	no	0
b. Public Service Announcement	no	0
c. Bill Inserts / Newsletters / Brochures	yes	11
d. Bill showing water usage in comparison to previous year's usage	yes	
e. Demonstration Gardens	yes	2
f. Special Events, Media Events	yes	3
g. Speaker's Bureau	yes	61
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	61400	0
2. Actual Expenditures	61400	

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

Budget only includes those costs for line items listed above. It does not reflect the costs of staff time to implement. The program is implemented equally over the entire service area including both retail and wholesale

areas.

Reported as of 10/1

BMP 08: School Education Programs

Reporting Unit: **Contra Costa WD - Wholesale**
 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	135	9450	0
Grades 4th-6th	yes	283	19836	4
Grades 7th-8th	yes	13	455	0
High School	no	5	140	0

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

4. When did your Agency begin implementing this program? **07/01/1980**

B. School Education Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	90000	0
2. Actual Expenditures	90000	

C. "At Least As Effective As"

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

D. Comments

Note: The School Education Program is offered throughout the CCWD retail and wholesale service areas. Therefore, the activities reflect those of the entire program.

Reported as of 10/1

BMP 10: Wholesale Agency Assistance Programs

Reporting Unit: **Contra Costa WD - Wholesale**
 BMP Form Status: **100% Complete**
 Year: **2004**

A. Implementation

1. Financial Support by BMP

BMP	Financial Incentives Offered?	Budgeted Amount	Amount Awarded	BMP Offered?	Budgeted Amount	Amount Awarded
1	yes	87081	62275	yes	90000	90000
2	yes	0	0	yes	31554	50851
3	No	0	0	yes	0	0
4	No	0	0	No	0	0
5	yes	44001	44616	yes	189878	189140
6	yes	0	31582	No	0	0
7	yes	61400	61400	yes	176813	95214

2. Technical Support

- a. Has your agency conducted or funded workshops addressing CUWCC procedures for calculating program savings, costs and cost-effectiveness? **No**
- b. Has your agency conducted or funded workshops addressing retail agencies' BMP implementation reporting requirements? **No**
- c. Has your agency conducted or funded workshops addressing:
 - 1) ULFT replacement **No**
 - 2) Residential retrofits **yes**
 - 3) Commercial, industrial, and institutional surveys **No**
 - 4) Residential and large turf irrigation **yes**
 - 5) Conservation-related rates and pricing **No**

3. Staff Resources by BMP

Qualified Staff	No. FTE Staff	Qualified Staff	No. FTE Staff

BMP	Available for BMP?	Assigned to BMP	BMP	Available for BMP?	Assigned to BMP
1	yes	3	8	yes	2
2	yes	1	9	yes	1
3	No		10	yes	1
4	No		11	No	0
5	yes	1	12	yes	1
6	yes	1	13	No	0
7	yes	1	14	yes	1

4. Regional Programs by BMP

BMP	Implementation/Management Program?	BMP	Implementation/Management Program?
1	yes	8	yes
2	yes	9	yes
3	No	10	yes
4	No	11	No
5	yes	12	yes
6	yes	13	No
7	yes	14	yes

B. Wholesale Agency Assistance Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	680000	0
2. Actual Expenditures	640000	

C. "At Least As Effective As"

1. Is your AGENCY implementing an "at least as effective as" variant of this BMP?

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

The Contra Costa Water District provides conservation services to individual customers in both the treated water service area (Retail) and the raw water service area (Wholesale). Section B reflects an estimated 30% of the total Water Conservation budget and expenditures and 100% of the public information and school education budget and expenditures for bmp 7 and 8, not including staff labor for BMP7. This does not include the budget or expenditures for the O&M Department which implements bmp 3 nor does it include the Finance department budget which implements bmp 11. Section A-1 reflects the following: BMP 1- 30% of Program budget and expenditures; BMP 2- included in BMP 1; BMP 5- 30% of Program budget and expenditures; BMP 6- budget is included in BMP 14 and expenditures are 30% of BMP 6 program expenditures; BMP 7- 100% of program budget and expenditures; BMP 8- 100% of program budget and expenditures; BMP 9- 30% of program budget and expenditures; BMP 10- included in each of the other individual BMPs; BMP 12- 30% of salaries and benefits of Conservation staff; BMP 14- NOTE: the BUDGET reflects 30% of Conservation Incentive Program budget, which includes ALL incentives and rebates such as ULFTs, Washers, CII devices, Irrigation rebates, etc. Expenditures reflect 30% of only the Residential ULFT replacements. The other expenditures are shown in the appropriate BMPs 1, 5, 6, 9, and 9A.

BMP 11: Conservation Pricing

Reporting Unit: **Contra Costa WD - Wholesale**
 BMP Form Status: **2004**
100% Complete

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

- 1. Residential**
 - a. Water Rate Structure
 - b. Sewer Rate Structure
 - c. Total Revenue from Volumetric Rates \$
 - d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue \$
- 2. Commercial**
 - a. Water Rate Structure
 - b. Sewer Rate Structure
 - c. Total Revenue from Volumetric Rates \$
 - d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue \$
- 3. Industrial**
 - a. Water Rate Structure
 - b. Sewer Rate Structure
 - c. Total Revenue from Volumetric Rates \$
 - d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue \$
- 4. Institutional / Government**
 - a. Water Rate Structure
 - b. Sewer Rate Structure
 - c. Total Revenue from Volumetric Rates \$
 - d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue \$
- 5. Irrigation**
 - a. Water Rate Structure
 - b. Sewer Rate Structure
 - c. Total Revenue from Volumetric Rates \$
 - d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue \$
- 6. Other**
 - a. Water Rate Structure Uniform
 - b. Sewer Rate Structure Service Not Provided
 - c. Total Revenue from Volumetric Rates \$19843258

d. Total Revenue from Non-Volumetric Charges, Fees and other Revenue Sources \$0

B. Conservation Pricing Program Expenditures

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

Income includes Wholesale Raw and Treated Wholesale.

Reported as of 10/1

BMP 12: Conservation Coordinator

Reporting Unit: **Contra Costa WD - Wholesale** 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? 100%
- b. Coordinator's Name Chris Durdon
- c. Coordinator's Title Water Conservation Supervisor
- d. Coordinator's Experience and Number of Years 13
- e. Date Coordinator's position was created (mm/dd/yyyy) 04/30/1991

6. Number of conservation staff, including Conservation Coordinator. 11

B. Conservation Staff Program Expenditures

	This Year	Next Year
1. Budgeted Expenditures	189878	0
2. Actual Expenditures	189140	

C. "At Least As Effective As"

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

D. Comments

Staff budget and expenditures includes full time and temporary water conservation staff. The figures do not include staff expenditures from other units such as public information, Operations and Maintenance, and Finance which also contribute to BMP implementation. Budget and expenditures assume 30% of actual in this Wholesale report and 70% in the Retail Report.

Reported as of 10/1