

**City of Santa Barbara**  
**Urban Water Management Plan**  
**2010 Update – Adopted June 2011**



Prepared by the City of Santa Barbara, Water Resources Division,  
pursuant to California Water Code, Section 10631

Adopted by the Santa Barbara City Council on June 14, 2011  
as Agenda Item No. 15

City Council:

Helene Schneider, Mayor  
Grant House, Councilmember  
Dale Francisco, Councilmember  
Frank Hotchkiss, Councilmember  
Michael Kathleen Self, Councilmember  
Harwood "Bendy" White, Councilmember  
Randy Rowse, Councilmember

Board of Water Commissioners:

Landon Neustadt, Chair  
Barry Keller, Vice-Chair  
Russell Ruiz, Commissioner  
James Smith, Commissioner  
Bill Thomas, Commissioner

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**City of Santa Barbara**  
**Urban Water Management Plan**  
**2010 Update**

**Section 1: Plan Preparation**

This Urban Water Management Plan (UWMP) has been prepared pursuant to the requirements of the California Water Code, Section 10631. Preparation was by staff of the Public Works Department in consultation with the City's Board of Water Commissioners and staff of the Community Development Department. The UWMP updates the previous plan updated by the City in December 2005. The approach used was to present a concise summary of the City's water supply system, updated to reflect changes since 2005 and to conform to new reporting requirements of State law. Much of the updated plan is based on the analysis completed in support of the *Plan Santa Barbara* process (General Plan update) and a concurrent update of the City's Long Term Water Supply Plan (LTWSP).

After numerous public meetings to consider pertinent information, the plan was reviewed by the Board of Water Commissioners on May 9, 2011, at which time the Commission unanimously voted to support staff's efforts to complete the plan in compliance with State UWMP requirements and in conformance with the City's updated LTWSP. A public hearing, with public notice pursuant to California Government Code Section 6066, was held before the City Council as Agenda Item No. 15 on June 14, 2011, at which time the Council voted unanimously to adopt the plan. Documentation of public noticing and City Council action is included in Appendix A.

Following are the more commonly used abbreviations and volumes in this plan:

<b>Abbreviations</b>	
AF	Acre-feet (1 AF = 325,851 gallons, or 435.6 HCF)
BMP's	Best Management Practices of the CUWCC
CUWCC	California Urban Water Conservation Council
DOF	California Department of Finance
GPCD	Gallons per Person, per day
HCF	Hundred Cubic Feet (1 HCF = 748 gallons)
LTWSP	City of Santa Barbara "Long Term Water Supply Plan," the City's water supply policy document, updated in conjunction with this Urban Water Management Plan update.
MGD	Million Gallons per Day
SWRCB	California State Water Resources Control Board
USGS	United States Geological Survey

Except where noted, annual data in this plan are based on fiscal years, running from July through June. In some cases existing data are tabulated in calendar years or water years (October through September) and are not practical to convert. However, all calculations related to determination of baselines and urban water use targets pursuant to the Water Conservation Act of 2009 (SB7x-7) are based on fiscal years.

## Community Involvement and Interagency Coordination

Water supply management has been a key issue in the effort to update the City's General Plan, which began in 2005. Updates of the City's LTWSP and UWMP were conducted in conjunction with this widely publicized effort. In addition, Water Supply Management Reports are presented annually to the Water Commission and City Council. All meetings of the City Council and Water Commission are publicly noticed and agenda packets are posted online for easy public access. Following is a tabulation of public outreach efforts and dates related to the development of the City's updated UWMP, and the LTWSP, which was developed to support both the General Plan update and the UWMP update.

**Table 1  
Public Outreach in Development of UWMP Update**

<b>Date</b>	<b>Activity</b>
January 2005	Planning Commission: General Plan Update - Conditions, Trends and Issues: Water Supply
July 2008	Planning Commission: Plan Santa Barbara – Water Supply Issues
April 2009	Water Commission: In Progress Review: Developed Water Supply Sources
June 2009	City's water newsletter features an article on the ongoing process of updating the Long Term Water Supply Plan and Urban Water Management Plan; mailed to each household in the City.
July 2009	Water Commission: Presentation of Estimated Annual Water Supply – Existing Conditions
October/November 2009	Water Commission: Review of Water Supply Planning Study (Carollo Engineers)
March 2010	Water Commission: Appointment of <i>Plan Santa Barbara</i> Subcommittee
April 2010	Water Commission: Recommendation on water supplies section of <i>Plan Santa Barbara</i> Draft EIR
September 2010	Water Commission: Presentation on Water Conservation Technical Evaluation (Maddaus Water Management)
October/November 2010	Water Commission: Demand Planning Issues and Demand Target for Water Supply Planning
December 2010	Water Commission: Review of Proposed 6-year Drought Planning Analysis
February/March 2011	Water Commission: Review Initial Drafts of LTWSP
April 2011	Joint City Council – Water Commission Work Session on LTWSP; and Commission Recommendation to Approve LTWSP
April 2011	Planning Commission Meeting – Water Supply Planning Briefing
May 2011	Water Commission: Review draft of UWMP
May 25, 2011	Posting of final draft UWMP on City Internet web site
May 25, 2011	Draft UWMP posted on City website for public comment, with notification to key community organizations (see below)
May 24/29/31, 2011	Publication dates for Notice of Public Hearing on UWMP
June 14, 2011	Public Hearing and UWMP Adoption

It was during these various meetings that key technical and policy issues were addressed by City Councilmembers, Commissioners, and members of the public. These issues included:

- Projection of new development, and associated water use, in conjunction with the City's

General Plan Update process;

- Updated water demand factors, by which future water use was estimated; and establishment of a target demand for long term planning purposes;
- Projected demand reductions from ongoing water conservation program measures;
- Review of updated economic and technical information related to proposed policies on the role of the City's desalination facility and consideration of water banking and/or purchases as alternatives to desalination;
- Effects of the ongoing economic crisis on City water demand;
- Discussion of the 2009 State Water Project Delivery Reliability Report and its implications for City water supply;
- Projected sedimentation impacts on surface water reservoirs;
- Review of long standing assumptions as to groundwater availability;
- Assessment of potential additional recycled water uses and policy on amounts of potable water blending to improve recycled water quality;
- Consideration of a policy to plan for a 6-year critical drought period, as opposed to historical frequency of 5 years;
- Evaluation of potential for extraordinary short-term demand reductions as a tool for addressing a critical drought period; and
- Formulation of a Long Term Water Supply Plan and an Urban Water Management Plan that will cost effectively meet the requirements of the Water Conservation Act of 2009.

Upon completion of the numerous public meeting identified above, the City prepared final drafts of the 2010 Urban Water Management Plan and the companion Long Term Water Supply Program. A number of key community organizations and affected agencies were notified of the availability of the May 24, 2011 drafts of the two documents. Those notified include:

- City of Santa Barbara, Community Development Department
- County of Santa Barbara, Clerk of the Board
- Central Coast Water Authority
- Goleta Water District
- Montecito Water District
- Carpinteria Valley Water District
- Santa Ynez River Water Conservation District, Improvement District No. 1
- Santa Ynez River Water Conservation District
- Santa Barbara County Water Agency
- Citizens Planning Association
- U. S. Bureau of Reclamation
- Hispanic Chamber of Commerce
- Santa Barbara Restaurant and Lodging Association
- Channel Islands Chapter California Landscape Contractors Association
- Allied Neighborhood Association
- Citizens Planning Association
- American Institute of Architects
- Community Environmental Council
- Santa Barbara Board of Realtors
- Santa Barbara Chamber of Commerce

- Downtown Organization
- Milpas Community Association

No additional feedback was received from the organizations contacted.

The City has coordinated with the Central Coast Water Authority on information about forecasted deliveries of water from the State Water Project.

Lake Cachuma is the City's primary source of water supply and the City coordinates regularly with the Cachuma Operation and Maintenance Board (COMB), the Joint Powers Agency that operates portions of the Cachuma Project and coordinates with the U.S. Bureau of Reclamation on contract issues and deliveries of project water. The Board meets monthly, as does an Operating Committee consisting of the Member Unit managers and the COMB General Manager.

The City has also been an active participant in the development and adoption of the 2007 Santa Barbara Countywide Integrated Regional Water Management Plan, and is currently participating in an update of the plan.

Current collaborative efforts among various parties on the Santa Ynez River to implement the 1989 Upper Santa Ynez River Operations Agreement are another example of regional cooperation to manage water resources.

At the June 14, 2011 public hearing, a representative of the local avocado growers acknowledged the City Council's support of agriculture and the chair-elect of the City Water Commission conveyed the Commission's support for adoption of the plan as presented.

Copies of the plan were sent to the office of the Clerk of the Board, County of Santa Barbara and the California State Library at the time of submittal of this plan to the Department of Water Resources. There are no other cities in which the City of Santa Barbara provides water.

A copy of the plan will be posted on the City's Internet site within 30 days of the filing date and will be available for review at the City Water Resources Division offices during normal business hours.

## **Contact Information**

This plan was prepared by the Water Resources Division, Public Works Department, City of Santa Barbara, under the management of Rebecca Bjork, Water Resources Manager. The preparation was coordinated by Bill Ferguson, Water Resources Supervisor, who can be reached by email at [BFerguson@SantaBarbaraCA.gov](mailto:BFerguson@SantaBarbaraCA.gov) or by phone at (805) 564-5571.

## Section 2: System Description

The City of Santa Barbara operates the water supply system that serves most of the properties within the City limits (except for the City airport, which is served by the Goleta Water District), and selected areas located outside the City limits. A map of the water service area is included as Appendix B. The following information gives a general description of the service area and water system:

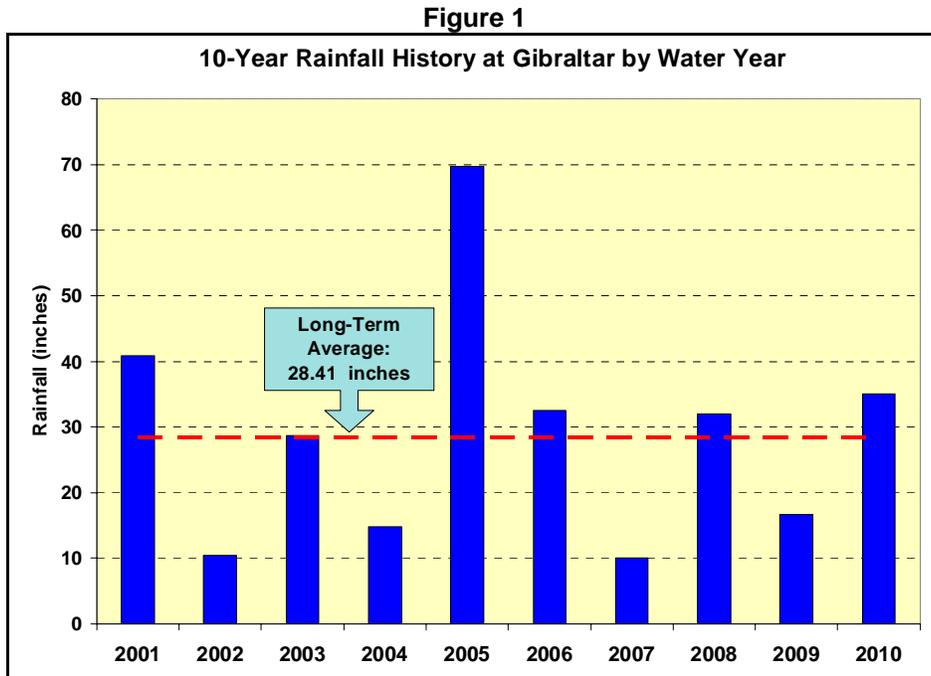
Service Area Population:

	Current	Projected <sup>1</sup>			
	2010	2015	2020	2025	2030
Total Service Area:	91,416	93,091	94,766	96,441	98,116

<sup>1</sup> Projections based on 2010 State of California Department of Finance population estimates for the City of Santa Barbara, adjusted using U.S. Census Bureau data to add out-of-City areas served by City distribution system and to deduct in-City areas not served by City distribution system. Growth assumptions from City of Santa Barbara *Plan Santa Barbara* (General Plan update) process projecting population increase of 6,700 persons through 2030.

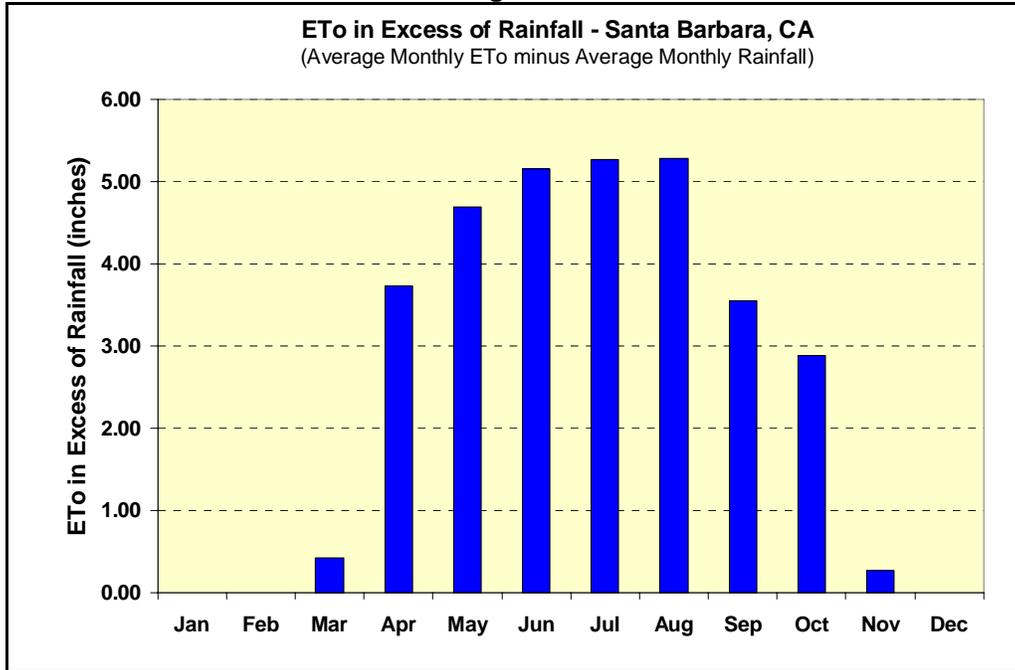
Elevation of Service Area: 0' - 1,400'

Average Annual Rainfall (see Figure 1 for data for past 10 years at Gibraltar):  
 Santa Barbara (1960-2010): 18.61"  
 Gibraltar Reservoir (1960-2010): 28.41"



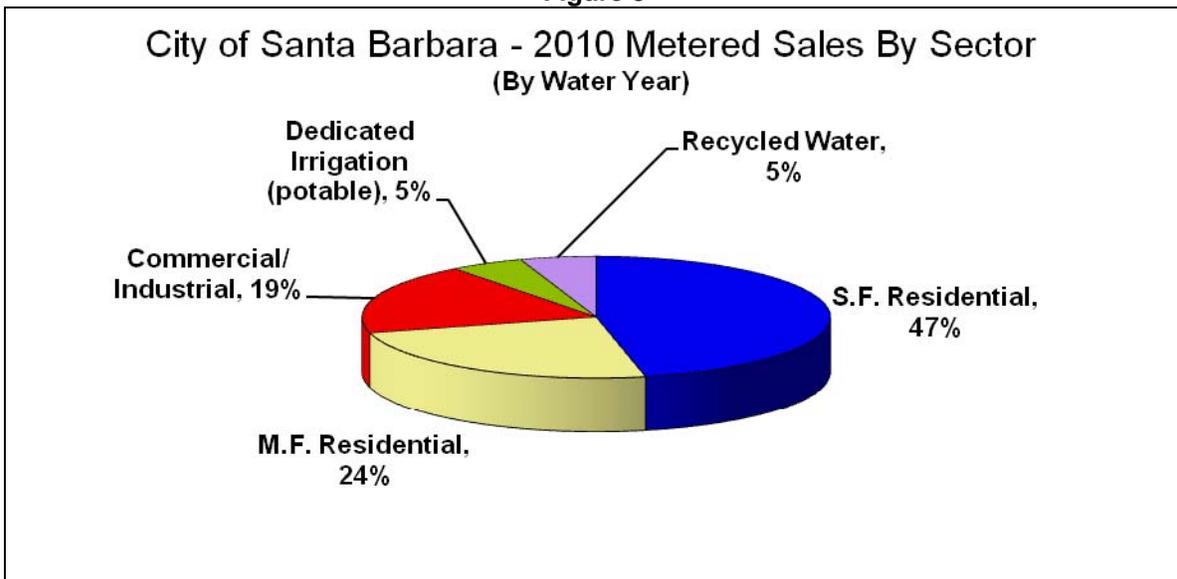
Average Annual Evapo-transpiration Rate: 44.6"  
 Average Annual ETo in Excess of Rainfall: 31.3" (See Figure 2 for monthly breakdown.)

**Figure 2**



Demographic Characterization: Figure 3 uses 2010 water sales by sector to give an overview of the demographic makeup of the City’s water service area. Residential use is predominant. The City is largely built-out, though it should be assumed that infill and redevelopment will continue at roughly the same rate as in the recent past, resulting in a small amount of new demand in the residential and commercial sectors. The relative distribution of demand by sector is expected to remain very similar to current conditions. The City has completed environmental analysis of a proposed General Plan Update process which sets the range of projected demand growth from new development.

**Figure 3**



Water System Facilities:

	<u>Potable Water System</u>	<u>Recycled Water System</u>
Miles of Distribution Main:	320	14
Balancing Reservoirs:	13	2
Pumping Stations:	12	2
Production Wells:	9	NA
Water System Employees:	72	

Wastewater System Description:

Collection system: 277 miles of sewer pipe  
9 lift stations

Wastewater Treatment Plant:

Design Capacity: 11 MGD  
Average 2010 Flow: 7.7 MGD  
Recycled Water Demand: 1.0 MGD  
Treatment Level: Secondary, with tertiary treatment of recycled water  
Disposal Method: Recycled to landscape irrigation and toilet flushing in public restrooms, with balance discharged to Pacific Ocean. (See Recycled Water information in Section 4 for more details on use of recycled water)

Wastewater System Employees: 58

The water and wastewater systems are administered by the Water Resources Division of the City's Public Works Department. The water demand projection was coordinated with the City's Community Development Department as a part of the process to update the City's General Plan.

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## Section 3: System Demands

### Historical Demand

The City's water demand history is shown in Figure 4. Produced water is used as the traditional indicator of demand since water is produced to meet the demand. With construction of the 1989 Water Reclamation Project, the City began tracking total water demand based on production to the potable water and recycled water distribution systems. The combined total is referred to as "system" demand. Figure 5 shows metered sales by sector for 1987 to present. Both figures illustrate the demand response to severe drought in the late 1980's and early 1990's, and partial recoveries of demand once drastic measures were no longer needed. Variations from 1998 onward are primarily the result of year-to-year variations in weather as illustrated in Figure 6.

Figure 4

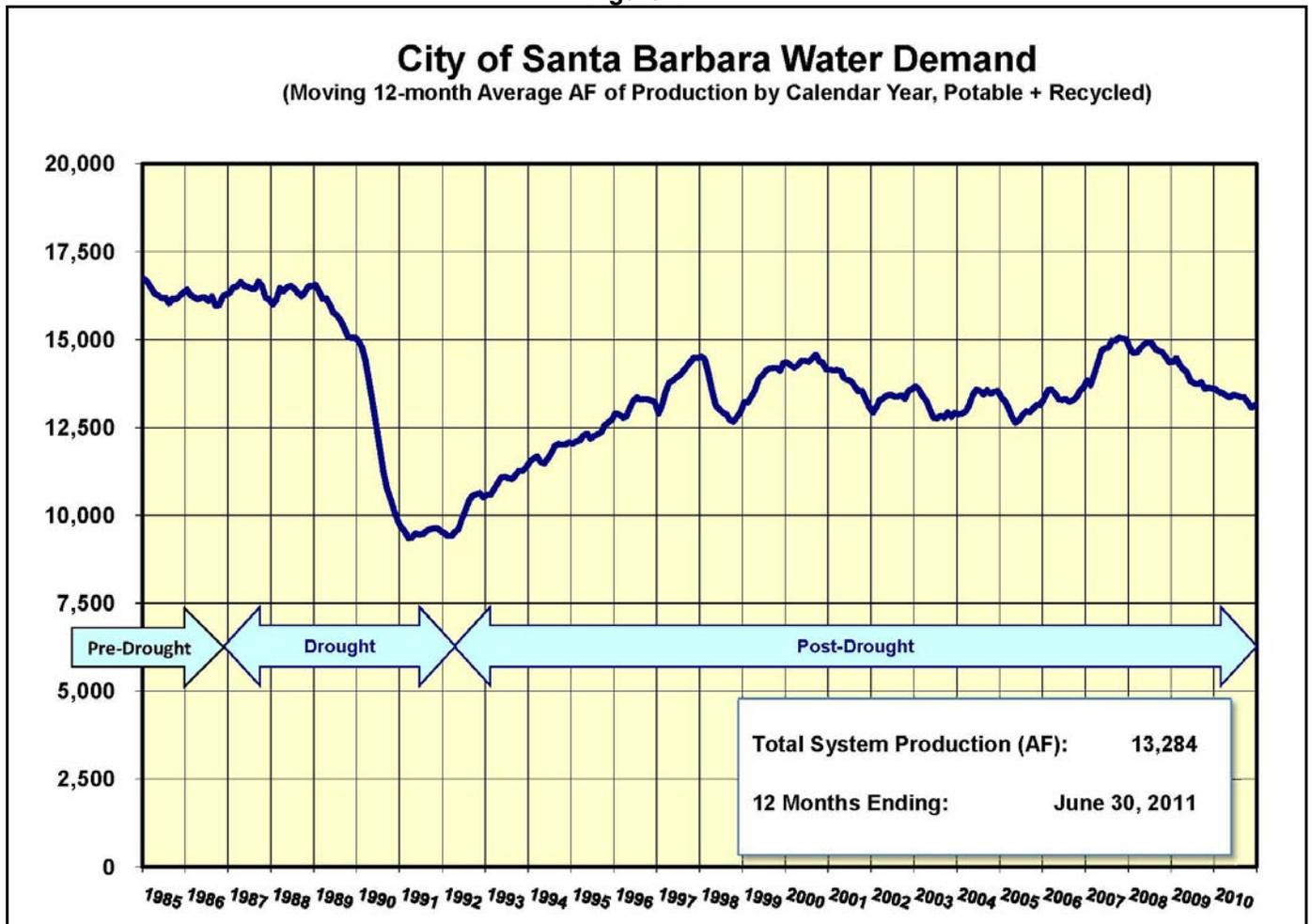


Figure 5

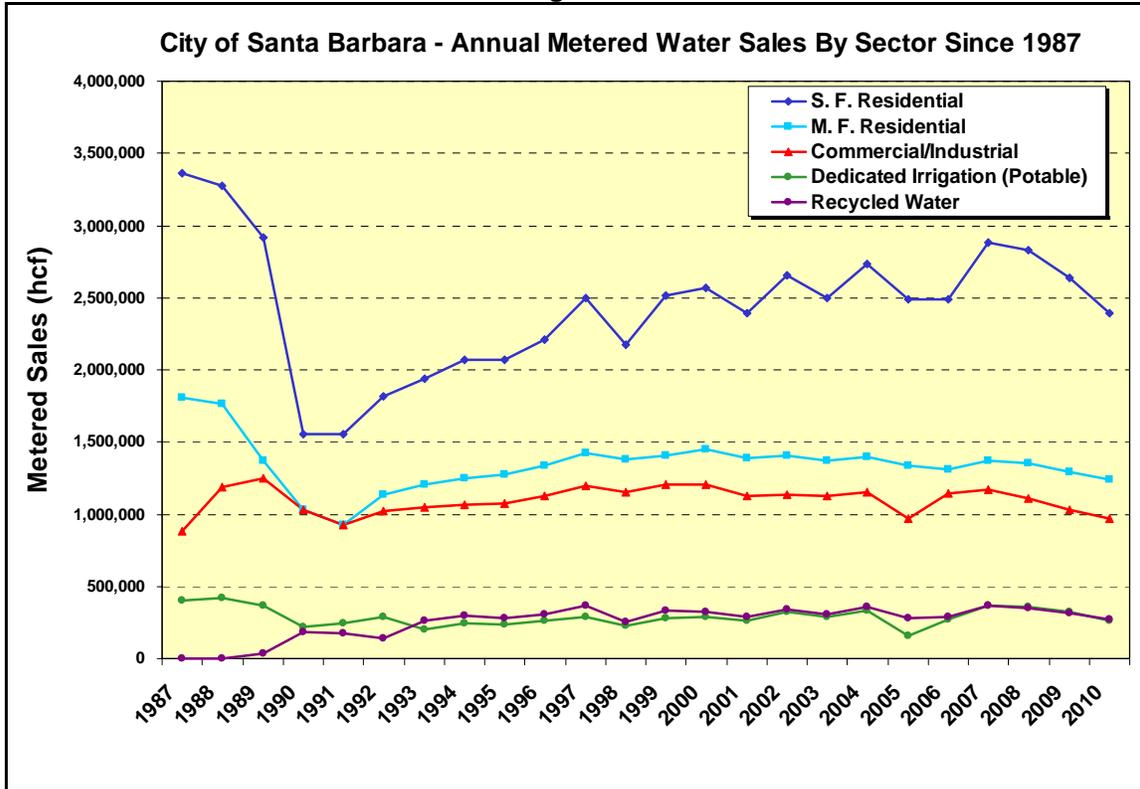
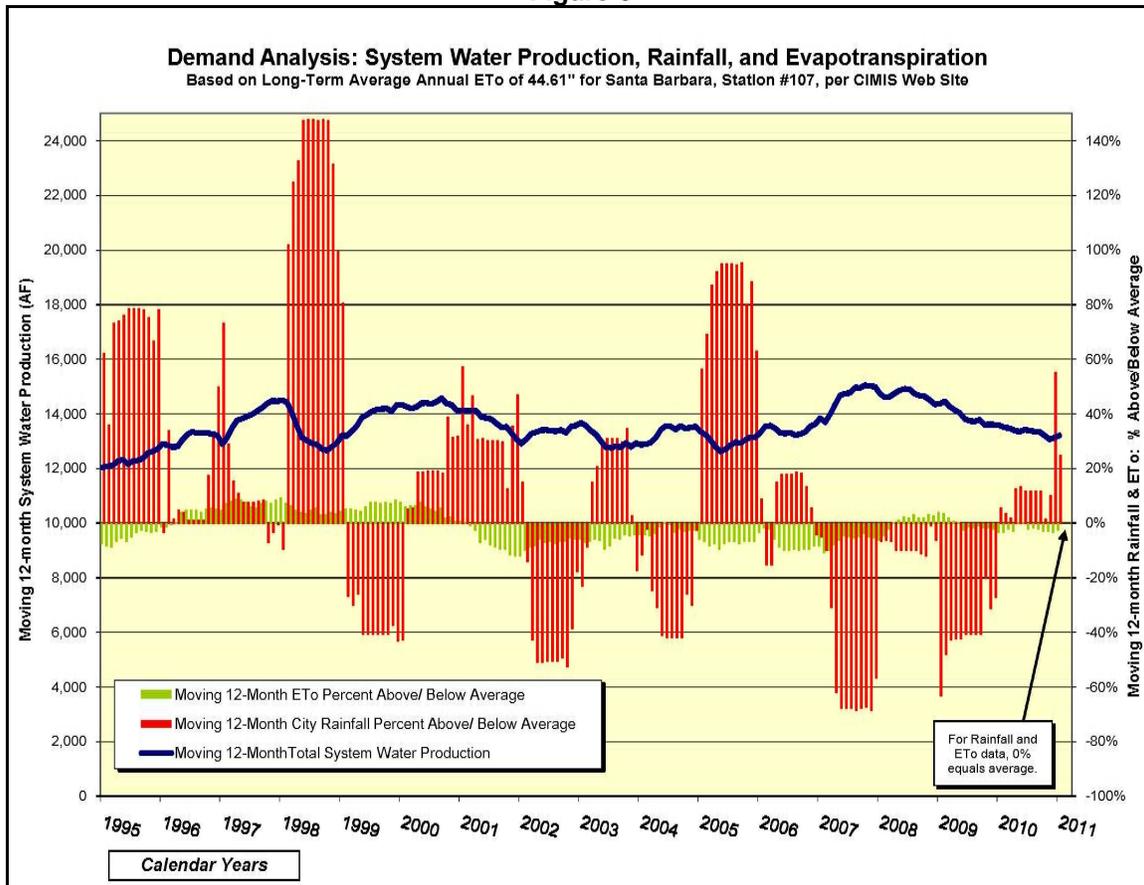


Figure 6



## Baselines and Targets

Pursuant to the Water Conservation Act of 2009 (SB7x-7) and related official methodologies, baseline per capita water use is required for two base periods, a 10 to 15 year period and a 5-year period. Recycled water deliveries for 2008 equal 5.9% of total deliveries. This is below 10%, thereby requiring use of a 10-year base period. Required data for the 10-year and 5-year base periods are shown in Table 2 and Table 3 respectively, calculated individually for the City of Santa Barbara water service area. A map of the City's service area is included as Appendix B. The service area includes in-City census tracts and out-of-City census tracts served by the distribution system, and excludes in-City census tracts not served.

**Table 2**  
**Base Daily Per Capita Water Use: 10-Year Range**

Base Period Year		Distribution System Population	Daily System Gross Water Use (per UWMP Guidebook Definition)		Annual daily per capita water use (gpcd)
Sequence Year	Fiscal Year		(AFY)	(mgd)	
Year 1	2000	92,229	13,792	12.3	134
Year 2	2001	92,807	13,344	11.9	128
Year 3	2002	93,390	12,879	11.5	123
Year 4	2003	93,267	12,223	10.9	117
Year 5	2004	93,315	13,073	11.7	125
Year 6	2005	92,882	12,528	11.2	120
Year 7	2006	91,946	12,860	11.5	125
Year 8	2007	91,934	14,106	12.6	137
Year 9	2008	92,776	14,432	12.9	139
Year 10	2009	93,017	13,576	12.1	130
<b>Base Daily Per Capita Water Use:</b>					<b>128</b>

**Table 3**  
**Base Daily Per Capita Water Use: 5-year Range**

Base Period Year		Distribution System Population	System Gross Water Use		Annual daily per capita water use (GPCD)
Sequence Year	Fiscal Year		(AFY)	(mgd)	
Year 1	2006	91,946	12,860	11.5	125
Year 2	2007	91,934	14,106	12.6	137
Year 3	2008	92,776	14,432	12.9	139
Year 4	2009	93,017	13,576	12.1	130
Year 5	2010	91,416	13,276	11.9	130
<b>5-Year Base Daily Per Capita Water Use:</b>					<b>132</b>

Population values in the base period tables are based on California Department of Finance (DOF) data for the City of Santa Barbara. City population for 2000 was compared with U.S. Census Bureau data to confirm approximate equality. Adjustments to add out-of-City population served by the City distribution system and deduct in-City population not served by the City system were made using 2000 census block data. The percentage increment of total population served in excess of the official City population value was calculated for 2000 and applied to DOF data for subsequent years. Year-to-year variations are partly explained by adjustments made by DOF from time to time.

Gross Water Use values are calculated as Total Water Received, including local surface water and groundwater, imported State Water for City use via the Central Coast Water Authority (CCWA), receipt of State Water for conveyance to La Cumbre Mutual Water Company (LCMWC). Deducted from this are agricultural deliveries, net exports to Goleta Water District (GWD), State Water conveyance to LCMWC, and export to long-term storage (groundwater injection and recharge). Consistent with State methodologies, calculation of Gross Water Use includes potable water used for blending (as discussed below), and excludes the recycled water component of deliveries to recycled water customers. A sample calculation for FY 2010 is shown in Table 4. Historical calculations for 1996 to present are shown in Table 5.

**Table 4**  
**Sample Calculation of Gross Water Use for FY 2010 (AFY)**

City Supplies:		
Cachuma Project	7,637	
Gibraltar Reservoir	2,933	
Mission Tunnel	1,220	
Devils Canyon Creek	0	
Groundwater	1,164	
Desalination	0	
Subtotal City Supplies:		12,954
Imported Supplies (SWP via CCWA):		541
State Water Received for LCMWC:		947
<b>Total Water Received:</b>		<b>14,442</b>
Less Agricultural Deliveries		106
Less Net Exports to GWD		38
Less State Water Conveyance to LCMWC		947
Less Export to Long Term Groundwater Storage		75
<b>Gross Water Use:</b>		<b>13,276</b>

Based on use of DWR's Urban Water Use Target Method #3 and location in the Central Coast Hydrologic Region, the urban water use target is 95% of the region target, or 117 GPCD. Table 3 shows calculation of the 5-year base period, resulting in a Base Daily Per Capita Water Use of 132 GPCD, 95% of which is equal to 125 GPCD. Since the urban water use target of 117 GPCD is not greater than 125 GPCD (i.e. it results in a targeted reduction of at least 5% compared to the 5-year base period) the target of 117 GPCD is confirmed. The interim target for 2015 is calculated as:

$$(128 \text{ GPCD Base Daily Water Use} + 117 \text{ Urban Water Use Target}) / 2 = 123 \text{ GPCD.}$$

**Table 5**

**Tabulation of Historical Gross Water Use**

Water into distribution system; less net exports, diversions to long-term storage (groundwater injection), and agricultural deliveries

Year	Cachuma	Gibraltar	Mission Tunnel	Devils Canyon	Ground Water	Desal	Total From Own Sources	From Imported Sources (CCWA/ SWP)	SWP Received for La Cumbre Mutual Conveyance	Total Water Received	Agricultural Deliveries	Net Exports to Goleta Water Dist.	Conveyance to La Cumbre Mutual	Export to Long Term Storage (GW Injection)	Gross Water Use
1996	5,561	5,452	1,692	71	-	-	12,776	-	-	<b>12,776</b>	103	44	-	75	<b>12,554</b>
1997	7,301	4,217	1,427	280	-	-	13,225	-	-	<b>13,225</b>	114	33	-	-	<b>13,078</b>
1998	7,269	3,962	1,803	79	73	-	13,186	-	1,012	<b>14,198</b>	81	648	1,012	-	<b>12,457</b>
1999	5,879	5,273	1,872	38	134	-	13,196	-	1,042	<b>14,238</b>	107	(294)	1,042	-	<b>13,383</b>
2000	11,300	1,394	1,149	-	357	-	14,200	-	646	<b>14,846</b>	120	179	646	109	<b>13,792</b>
2001	5,523	5,573	1,886	-	280	-	13,262	-	830	<b>14,092</b>	113	(276)	830	81	<b>13,344</b>
2002	7,373	3,827	1,267	3	8	-	12,478	539	945	<b>13,962</b>	114	(48)	945	72	<b>12,879</b>
2003	6,484	3,127	942	31	-	-	10,584	1,924	742	<b>13,250</b>	113	172	742	-	<b>12,223</b>
2004	7,777	3,414	1,256	20	-	-	12,467	890	776	<b>14,133</b>	134	62	776	88	<b>13,073</b>
2005	7,523	1,879	1,585	70	-	-	11,057	1,903	550	<b>13,510</b>	105	312	550	15	<b>12,528</b>
2006	5,305	4,546	1,786	-	906	-	12,543	659	511	<b>13,713</b>	134	208	511	-	<b>12,860</b>
2007	7,804	3,783	1,409	-	434	-	13,430	667	804	<b>14,901</b>	157	(227)	804	61	<b>14,106</b>
2008	10,734	1,576	1,093	160	751	-	14,314	609	879	<b>15,802</b>	155	212	879	124	<b>14,432</b>
2009	8,236	2,569	1,142	76	1,112	-	13,135	496	902	<b>14,533</b>	139	(225)	902	141	<b>13,576</b>
2010	7,637	2,933	1,220	-	1,164	-	12,954	541	947	<b>14,442</b>	106	38	947	75	<b>13,276</b>

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**Table 6  
Water Demands and Total Water Use (AF)**

	<i>Actual</i>				<i>Projected</i>							
	2005		2010		2015		2020		2025		2030	
Water use sectors	# of accts.	Volume (AF)	# of accts.	Volume (AF)	# of accts.	Volume (AF)	# of accts.	Volume (AF)	# of accts.	Volume (AF)	# of accts.	Volume (AF)
Single family	16,850	5,758	16,920	5,824	17,007	5,684	17,094	5,588	17,181	5,527	17,268	5,487
Multi-family	5,786	3,094	6,126	2,931	6,417	2,860	6,417	2,812	6,417	2,781	6,417	2,761
Commercial	2,364	2,230	2,530	2,066	2,565	2,016	2,600	1,982	2,635	1,960	2,670	1,946
Industrial	53	360	56	255	56	249	56	245	56	242	56	240
Institutional/ Government (included w/ Comm.)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Landscape	624	556	729	541	749	528	769	519	789	513	809	510
Agriculture	56	105	59	106	59	103	59	102	59	101	59	100
<b>Total Potable Accts. &amp; Deliveries (Metered Sales)</b>	25,733	12,104	26,420	11,722	26,854	11,441	26,996	11,248	27,138	11,125	27,280	11,045
Sales to Other Agencies		0		0		0		0		0		0
Net Exports to Other Districts		312		38		0		0		0		0
Groundwater Recharge		15		75		75		75		75		75
Blending to Recycled Water		645		651		300		275		275		275
System Losses		NA		1,009		995		978		967		960
<b>Total Water Use</b>		<b>13,076</b>		<b>13,495</b>		<b>12,811</b>		<b>12,576</b>		<b>12,443</b>		<b>12,355</b>

Note: "Total Water Use" above and as illustrated in Table 11 is not intended to equal "Gross Water Use" that is the basis of the Urban Water Use Target calculation.

**Tabulation of Target & Projected Urban Water Use:**

	2015	2020	2025	2030
Potable Metered Sales:	11,441	11,248	11,125	11,045
Potable System Losses:	995	978	967	960
Blending to Recycled Water System:	300	275	275	275
Less Agriculture Deliveries:	-103	-102	-101	-100
Gross Water Use:	12,632	12,399	12,267	12,180
Projected Service Area Population:	93,091	94,766	96,441	98,116
Target Urban Water Use (GPCD):	123	117	117	117
Projected Urban Water Use (GPCD):	121	117	114	111

Recycled Water Sales	2005		2010		2015		2020		2025		2030	
	# of accts.	Volume (AF)										
	76	718	84	697	99	875	114	950	129	1,025	144	1,100

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## Water Demands

Table 6 shows the various demands on the City water system at 5-year intervals. These include metered sales by customer class, net exports, groundwater recharge, blend water into the recycled water system for managing mineral content, and system losses. Also included is a tabulation of target and projected values for urban water use, consistent with methodologies for implementing SBx7-7 water use reduction requirements.

Table 7 summarizes water use projected to be needed to serve single-family residential and multi-family residential housing needed for lower income households. The information is derived from Appendix C, which was prepared by staff of the City's Community Development Department using information from the Plan Santa Barbara General Plan Certified Final EIR dated September 2010 and the City of Santa Barbara General Plan Housing Element, September 2010 Proposed Final. These demands have been included in the overall water use projections in Table 6.

**Table 7  
Low-Income Projected Water Demand (AFY)**

	<b>2010</b>	<b>2015</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>
Single Family Residential	552	560	568	576	584
Multi-Family Residential	192	213	235	256	278
<b>Total</b>	<b>744</b>	<b>774</b>	<b>803</b>	<b>832</b>	<b>862</b>

The City of Santa Barbara receives wholesale deliveries of State Water from the Central Coast Water Authority. Table 8 shows the projections of water use from CCWA, as they were provided to CCWA.

**Table 8  
Retail Agency Demand Projections Provided to Wholesale Supplier (AFY)**

	<b>2010</b>	<b>2015</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>
Central Coast Water Authority	2,084	2,064	2,043	2,023	2,002

## Water Use Reduction Plan

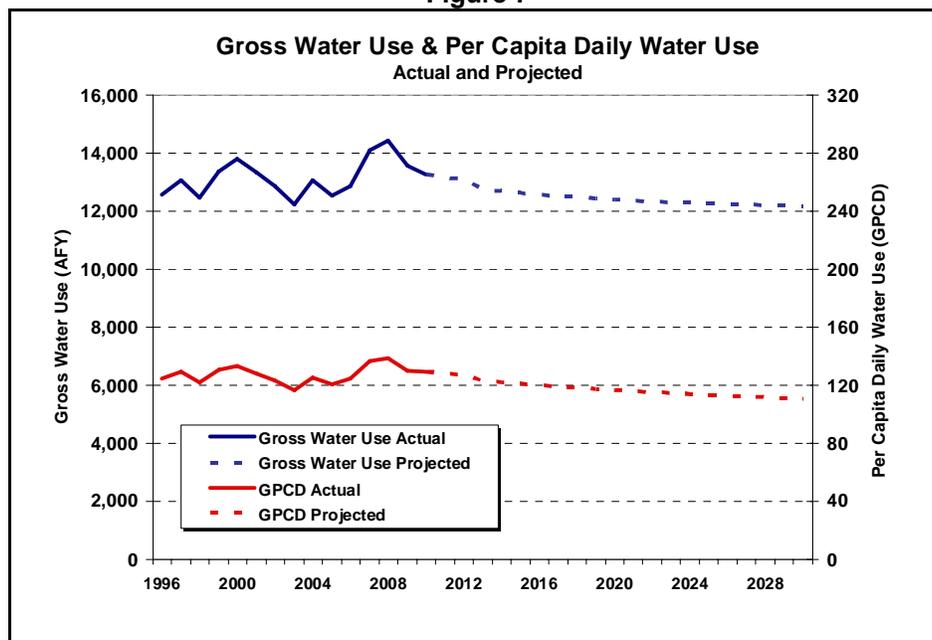
The City's long term commitment to water conservation is evident in reductions in water demand achieved over the past twenty years. Total system demand has dropped from approximately 16,300 AFY in the late 1980's to approximately 14,000 AFY currently. To achieve the next level of demand management reductions it was important to evaluate the effects of updated plumbing codes and appliance standards, ongoing implementation of the CUWCC BMP's, and added measures that can be cost effectively implemented to further offset water demand.

The City hired Maddaus Water Management (MWM), an engineering firm widely recognized for expertise in demand management, to analyze the existing conservation program and use its proprietary Demand Management Decision Support System (DSS) to model current and potential water conservation measures. The DSS also quantified the demand reduction effects of these measures along with the effects of plumbing codes and appliance standards. Key findings, including the effect of assumed development consistent with the City's General Plan update process, are as follows:

- The 2030 system demand would be expected to increase by 1,202 AFY (compared to the 2006 model reference point of 13,623 AFY) to 14,825 AFY, if the effects of already adopted plumbing codes and appliance standards were not considered. (Note that this will not actually occur, but it is a useful reference point to illustrate the ongoing effect of stricter codes and standards on both new and existing development.)
- The effects of the plumbing code and appliance standards are estimated to reduce 2030 demand by 919 AFY, to 13,906 AFY, not including the effects of conservation program activities and measures.
- Conservation Program B, which includes current conservation program measures along with those that together meet a utility benefit-cost ratio of 1.0, is estimated to reduce demand by an additional 498 AFY, to 13,408 AFY.

The results described above are illustrated in Figure ES-1 of the Executive Summary of the Technical Memorandum prepared by MWM, which is included in this plan as Appendix D. The benefit-cost ratios shown in Table ES-3 of Appendix D were calculated on the basis of an avoided cost of \$600 per AF, which is an average of the variable costs associated with State Water Project Table A deliveries, groundwater produced from the Ortega Groundwater Treatment Plant, and deliveries of purchased water through the State Water Project during non-critical drought periods. Program B was selected on the basis of its cost effectiveness. The model results have been incorporated into the demand and Urban Water Use projections itemized in Table 9 and graphed in Figure 7. The results of these projections indicate that the City will meet its 2020 Urban Water Use Target by implementing the water conservation measures in Program B, adding 150 AFY of new recycled water user demand to offset potable usage, and reducing the amount of potable blend water from a 2010 amount of 651 AFY to 250 AFY. The required new recycled demand is about half of what has already been identified in planning studies and much of the blend water reduction will come from planned corrections to the secondary treatment process. The conservation measures of Program B are identified in Table ES-1 of Appendix D.

Figure 7



**Table 9**

**Demand & Urban Water Use Projections**

Volumes in AF, except as noted

**Input assumptions:**

- 300 = Planned Potable Demand Reduction from New Recycled Water Connections
- Row 27 = Projected "Program B" demand reductions, including plumbing codes & conservation program
- 0 = Additional 20-year demand reductions from conservation above "Program B"
- 275 = Target Blending Amount After Secondary Improvement (starting 2015)

**Summary Information:**

- 300 = Total Demand Reductions from New Recycled Water
- 1320 = Total Demand Reductions from New Water Conservation
- 150 = Demand reductions from incr. recycled water by 2020
- 802 = Conservation reductions projected by 2020

**Service Area Growth Projection - Per Plan SB Final EIR:**

20-Year Breakout by Sector:	20-year Total	Annual Amount
Single Family Residential	166	8.31
Multi-Family Residential	445	22.26
Non-Residential	283	14.16
<b>Total:</b>	<b>895</b>	<b>44.73</b>

0 = Calculated average annual required conservation demand reductions in excess of "Program B"

- 6,700 = 20-year Population Growth Projection (from Plan SB Final EIR)
- 335 = Annual average population increase

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Starting Potable Production		12,731	12,669	12,614	12,557	12,497	12,436	12,397	12,352	12,314	12,270	12,226	12,195	12,166	12,140	12,115	12,093	12,072	12,053	12,036	12,020
Demand from New Devel.																					
SFR		8.31	8.31	8.31	8.31	8.31	8.31	8.31	8.31	8.31	8.31	8.31	8.31	8.31	8.31	8.31	8.31	8.31	8.31	8.31	8.31
MFR		22.26	22.26	22.26	22.26	22.26	22.26	22.26	22.26	22.26	22.26	22.26	22.26	22.26	22.26	22.26	22.26	22.26	22.26	22.26	22.26
Non-Resid.		14.16	14.16	14.16	14.16	14.16	14.16	14.16	14.16	14.16	14.16	14.16	14.16	14.16	14.16	14.16	14.16	14.16	14.16	14.16	14.16
Demand Reductions																					
New Recycled Water Use		-15	-15	-15	-15	-15	-15	-15	-15	-15	-15	-15	-15	-15	-15	-15	-15	-15	-15	-15	-15
New Conserv. - Prog B		-92	-84	-87	-90	-91	-69	-74	-68	-73	-74	-61	-59	-56	-54	-52	-50	-49	-47	-46	-44
New Conserv. > Prog B		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ending Potable Production	12,731	12,669	12,614	12,557	12,497	12,436	12,397	12,352	12,314	12,270	12,226	12,195	12,166	12,140	12,115	12,093	12,072	12,053	12,036	12,020	12,005
Plus Blend Water to Recycled	651	600	600	300	300	300	275	275	275	275	275	275	275	275	275	275	275	275	275	275	275
Less Agriculture Deliveries	-106	-105	-105	-104	-104	-103	-103	-103	-102	-102	-102	-101	-101	-101	-101	-101	-100	-100	-100	-100	-100
<b>Gross Water Use:</b>	<b>13,276</b>	<b>13,164</b>	<b>13,109</b>	<b>12,752</b>	<b>12,693</b>	<b>12,632</b>	<b>12,568</b>	<b>12,524</b>	<b>12,486</b>	<b>12,443</b>	<b>12,399</b>	<b>12,369</b>	<b>12,340</b>	<b>12,314</b>	<b>12,289</b>	<b>12,267</b>	<b>12,246</b>	<b>12,228</b>	<b>12,210</b>	<b>12,195</b>	<b>12,180</b>
Service Area Population:																					
Starting Amount		91,416	91,751	92,086	92,421	92,756	93,091	93,426	93,761	94,096	94,431	94,766	95,101	95,436	95,771	96,106	96,441	96,776	97,111	97,446	97,781
Added Population		335	335	335	335	335	335	335	335	335	335	335	335	335	335	335	335	335	335	335	335
Ending Amount	91,416	91,751	92,086	92,421	92,756	93,091	93,426	93,761	94,096	94,431	94,766	95,101	95,436	95,771	96,106	96,441	96,776	97,111	97,446	97,781	98,116
<b>Per Capita Use (GPCD):</b>	<b>130</b>	<b>128</b>	<b>127</b>	<b>123</b>	<b>122</b>	<b>121</b>	<b>120</b>	<b>119</b>	<b>118</b>	<b>118</b>	<b>117</b>	<b>116</b>	<b>115</b>	<b>115</b>	<b>114</b>	<b>114</b>	<b>113</b>	<b>112</b>	<b>112</b>	<b>111</b>	<b>111</b>
Recycled Production:	696	815	830	845	860	875	890	905	920	935	950	965	980	995	1,010	1,025	1,040	1,055	1,070	1,085	1,100
<b>System Production:</b>	<b>13,427</b>	<b>13,484</b>	<b>13,444</b>	<b>13,402</b>	<b>13,357</b>	<b>13,311</b>	<b>13,287</b>	<b>13,257</b>	<b>13,234</b>	<b>13,205</b>	<b>13,176</b>	<b>13,160</b>	<b>13,146</b>	<b>13,135</b>	<b>13,125</b>	<b>13,118</b>	<b>13,112</b>	<b>13,108</b>	<b>13,106</b>	<b>13,105</b>	<b>13,105</b>

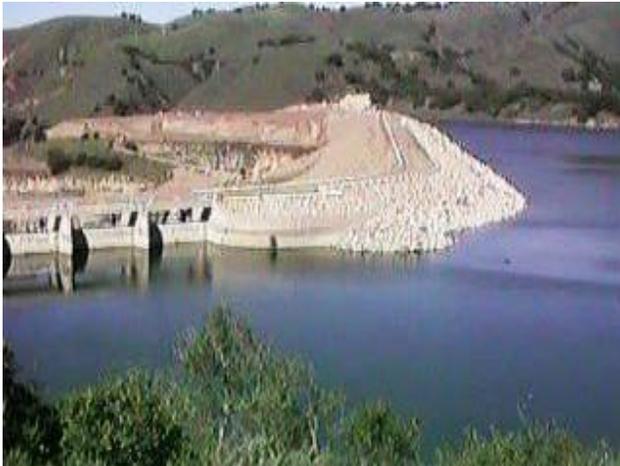
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## Section 4: System Supplies

### Water Sources

The City operates a diverse water supply. The various sources of supply are described below. The following descriptions are intended as a brief summary and shall not be construed as exhaustive or as a waiver of any right or interest in water.

#### ***Cachuma Project***

- Description: Earth filled dam (Bradbury Dam) located on the Santa Ynez River 25 miles northwest of Santa Barbara; owned and operated by U.S. Bureau of Reclamation; constructed early 1950's; interim seismic retrofit completed 1996, permanent repairs were deemed substantially complete in 2001; water is delivered through the Santa Ynez Mountains to the South Coast via 6.4 mile Tecolote Tunnel, 24.3 mile South Coast Conduit, and four regulating reservoirs, completed in 1956;
- 
- Drainage Area: 417 square miles (including Gibraltar drainage area)
- Current Capacity: 186,636 AF (approximately 195,600 AF with modifications to allow a 3' surcharge for fish releases)
- Max. Normal Pool: El. 750 (El. 753 with modifications to allow fish account surcharge)
- Annual Yield: The current total project operational yield equals 25,714 AFY. The City's share is 32.19% or 8,277 AFY.
- Operating Criteria: The project operates under a permit granted by the State Water Resources Control Board (SWRCB). The current Water Right Order 94-5 continued earlier requirements for releases to protect downstream interests (e.g. the City of Lompoc, Improvement District No. 1 of the Santa Ynez River Water Conservation District and riparian groundwater pumpers along the Santa Ynez River) and required hearings in 2002 and 2003 to address outstanding issues related to potential project impacts on vegetation, fish, and downstream users. The hearings have been completed and a decision by the SWRCB has long been pending completion of environmental documentation.

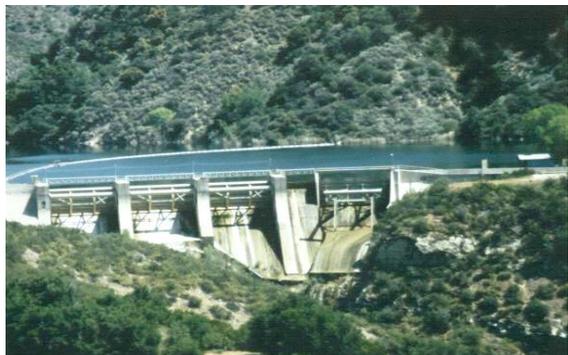
Project water is accumulated to the extent that inflow is not needed to satisfy the release requirements. It is delivered to the member units in accordance with a Master Contract between U.S. Bureau of Reclamation, and the Santa Barbara County Water Agency and the Cachuma Project member units. The contract was renewed in 1996 for a twenty five-year term. Siltation rate at Cachuma has been projected to be approximately 5% of current volume between now and 2030. Water quality has traditionally been good enough to require only conventional filtration. Impacts from a recent major fire in the watershed and tighter regulations on disinfectant byproducts have led to the planned advance treatment/ozone project at Cater Treatment plant.

A key policy of the City's 2011 LTWSP is that drought planning should be based on a six-year critical drought period rather than the historical five-year period. Since the current project yield of 25,714 AFY is based on the five-year historical drought, the City's operations will be based on deferring use of some current normal year entitlement in order to build carryover for use in the sixth year of a drought.

**Cost Information:** The water supply contract with the U.S. Bureau of Reclamation sets the unit cost of the City's share of project yield at about \$120/AF, or approximately \$1,000,000 annually. Since this is treated as a payback of capital cost, it is not considered a variable cost. Additional annual fixed costs include about \$1,500,000 for the City's share of the Cachuma Operation and Maintenance Board (COMB) budget for administration, operation, maintenance, and capital improvement of the project, and about \$200,000 for the City's share of Cachuma Conservation Release Board (CCRB) expenses associated with managing the members' water rights at Cachuma and implementing the Lower Santa Ynez River Fish Management Plan. Variable costs consist of the marginal cost of treatment at Cater Treatment Plant, which is currently approximately \$100/AF. Seismic reinforcement of the dam and rehabilitation of the dam's gates have been completed. Upcoming capital costs focus on upgrade and rehabilitation of the South Coast Conduit portion of the project.

### ***Gibraltar Reservoir***

**Description:** Constant radius, concrete arch dam located on the Santa Ynez River, 8 miles north of Santa Barbara; owned by City of Santa Barbara; constructed 1913-20, with an original capacity of 15,783 AF; raised to current elevation in 1949; strengthened in 1990-91;



water delivered through the Santa Ynez Mountains to Santa Barbara via Mission Tunnel

Current Capacity: 5,251 Acre Feet (per 2010 Bathymetric Study)

Drainage Area: 216 square miles

Max. Normal Pool: El. 1,400

Annual Yield: Yield will be dictated by management as described under "Operating Criteria" below. (See discussion of Operating Criteria below.)

Operating Criteria: Current Gibraltar Reservoir operations are based on the 1989 Upper Santa Ynez River Operations Agreement (Pass Through Agreement) by which the City agreed to defer a second enlargement of the reservoir in exchange for the right to receive a portion of its Gibraltar water through Lake Cachuma. The intent of this arrangement was to allow the City and other parties to continue to experience Santa Ynez River supplies that would reflect the Gibraltar storage volume as it was in 1988.

The City is working to obtain a Warren Act agreement necessary for the Pass Through mode of the agreement. Pass Through mode involves tracking the yield of a hypothetical "Base Reservoir" that is equal to the 1988 storage capacity of 8,567 AF, and operated under the procedures defined in the Pass Through Agreement. The Pass Through mode allows Gibraltar Reservoir diversions (including diversions to Mission Tunnel and the portion taken through Cachuma) up to the amount that could have been diverted under the "Base Reservoir" operations. Modeling done in 1989 indicated that long-term average yield of the Base Reservoir would be 5,160 AFY. Yield under the actual Pass Through operations can be expected to be somewhat less on average, due to potential losses associated with conveyance of water between Gibraltar and Cachuma, and spill and evaporation of Pass Through water at Cachuma. For conservative estimates of Gibraltar yield, it is assumed that deliveries will average 70% of the amounts estimated in the environmental analysis on the Cachuma Water rights hearings before the SWRCB. In normal years, this results in an estimated yield of 3,206 AFY.

Water quality is affected by turbidity during high flow periods, which temporarily interrupts diversions. In addition, residual water quality impacts from the 2007 Zaca Fire continue to affect the level of dissolved organic material in Gibraltar water, resulting in significantly increased treatment costs using interim procedures pending completion of an advanced treatment/ozone project at the City's Cater Treatment Plant.

Cost Information: Costs for this source of supply are primarily "sunk" costs, including the original cost of construction, plus a cost of \$9 million for strengthening in 1990-91, plus the cost of Mission Tunnel. Variable costs for Gibraltar are the same as for Cachuma water, which is approximately \$100/AF.

### ***Devil's Canyon Creek***

- Description: The City maintains a small diversion works on Devil's Canyon Creek below Gibraltar Dam which diverts water from Devil's Canyon Creek into Mission Tunnel.
- Annual Yield: Average: 118 AFY  
Range: 0 AFY - 557 AFY
- Operating Criteria: Water is diverted as available to help improve the quality of water going into Mission Tunnel. Diverted water is counted as a part of allowable diversions under the Pass Through Agreement.
- Cost Information: Variable costs are the same as Gibraltar water or approximately \$100/AF.

### ***Mission Tunnel***

- Description: A 3.7 mile tunnel through the Santa Ynez Mountains running from the North Portal, located approximately 1,700 feet downstream of Gibraltar Dam to the South Portal, located on Mission Creek approximately 3 miles north of downtown Santa Barbara; constructed 1904-1910; rehabilitation work completed December 1994.
- Annual Infiltration: For the period of 1976 through 2005, infiltration ranged from 500 AFY to 2,375 AFY, with an average of 1,125 AFY.
- Operating Criteria: Tunnel infiltration augments water conveyed from Gibraltar Reservoir, normally flowing to Cater Treatment Plant via the penstock, hydroelectric facility, and Lauro Reservoir; a portion of this combined flow is sometimes diverted to Mission Creek for groundwater recharge purposes. Water quality is relatively hard, as is typical of the region, but otherwise good.
- Cost Information: Variable costs are the same as Cachuma and Gibraltar water or approximately \$100/AF.

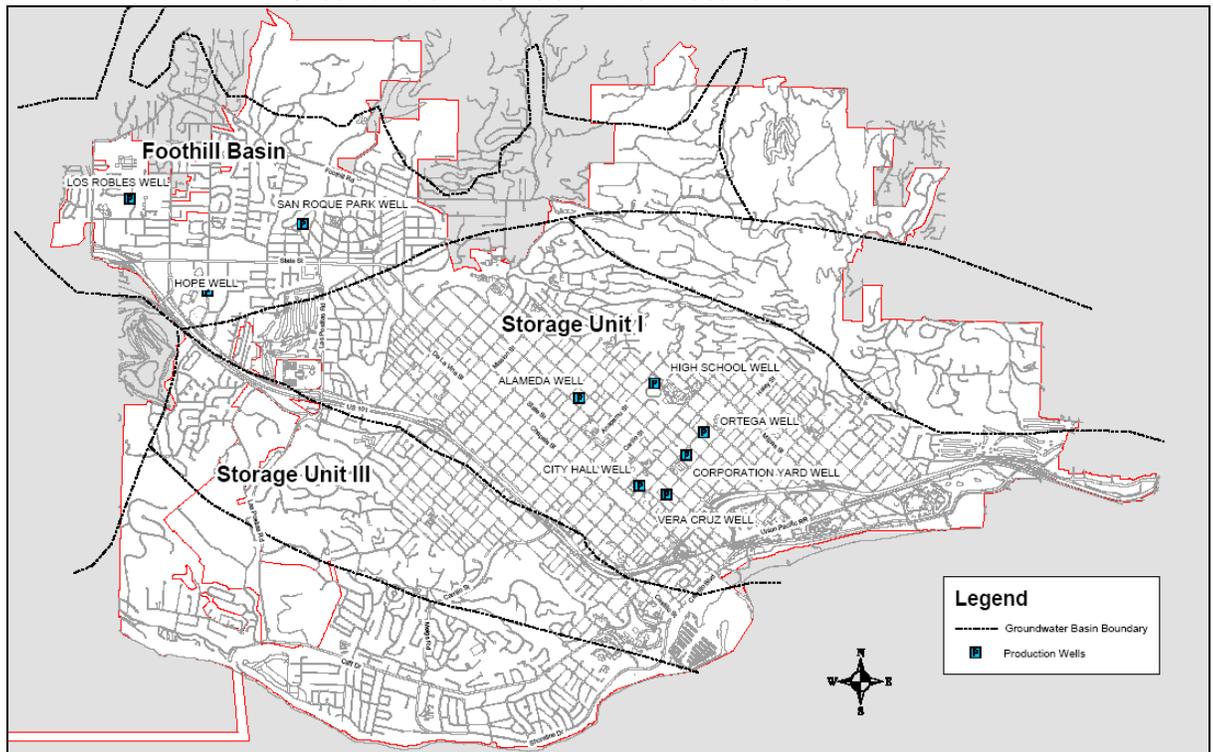
### ***Groundwater***

- Description: In addition to groundwater obtained from infiltration to Mission Tunnel, the City obtains pumped groundwater primarily from two hydrogeologic units: Storage Unit No. 1 (in the downtown area) and the Foothill Basin (in the outer State Street area) as shown in Figure 8. The estimated long-term safe yield of these two basins is approximately 1,800 AFY. Extraction by private pumpers is estimated at 500 AFY, leaving a safe yield of about 1,300 AFY available to the City. Pumping historically averages less than this safe yield amount, except for rare critical drought periods as described below. State Bulletin 118 does not list City basins as being in overdraft, which is consistent with City experience.

The City has six production wells in Storage Unit No. 1 and three in the Foothill Basin, though the wells are in need of varying degrees of maintenance or replacement. Well depths range from about 315 feet to 670 feet. While the estimated total pumping capacity is approximately 4,500 AFY, a capacity of 4,150 AFY is assumed for planning purposes. The total usable storage capacity of these two basins is estimated at 16,000 AF of City pumping.

A third basin (Storage Unit No. 3 in the Las Positas Valley area) provides additional safe yield of approximately 100 AFY, but water quality is inferior and is not planned for use.

**Figure 8  
Groundwater Basins and Well Locations**



Seawater intrusion into Storage Unit No. 1 is a key issue because the groundwater basin is in contact with seawater that can flow into the basin during periods of heavy pumping. Under normal periods of little or no pumping, the groundwater flow is toward the ocean, which stops intrusion and pushes the seawater interface seaward. The City's Multiple Objective Optimization Model (developed by USGS) was used to estimate pumping levels during a critical drought period that represent a compromise between maximizing production and minimizing seawater intrusion. The model results in total pumping of up to about 17,800 AF during the drought period, allowing some intrusion for the last portion of the drought. This modeling was based on one additional well in each basin, which may have implications for future capital program needs. In Storage Unit No. 1, the assumption was that new wells would be placed further inland to minimize intrusion. Update and enhancement of this model by USGS is underway.

Perennial Yield: The portion of the perennial yield available to the City from Storage Unit No. 1 and the Foothill Basin is approximately 1,300 AFY.

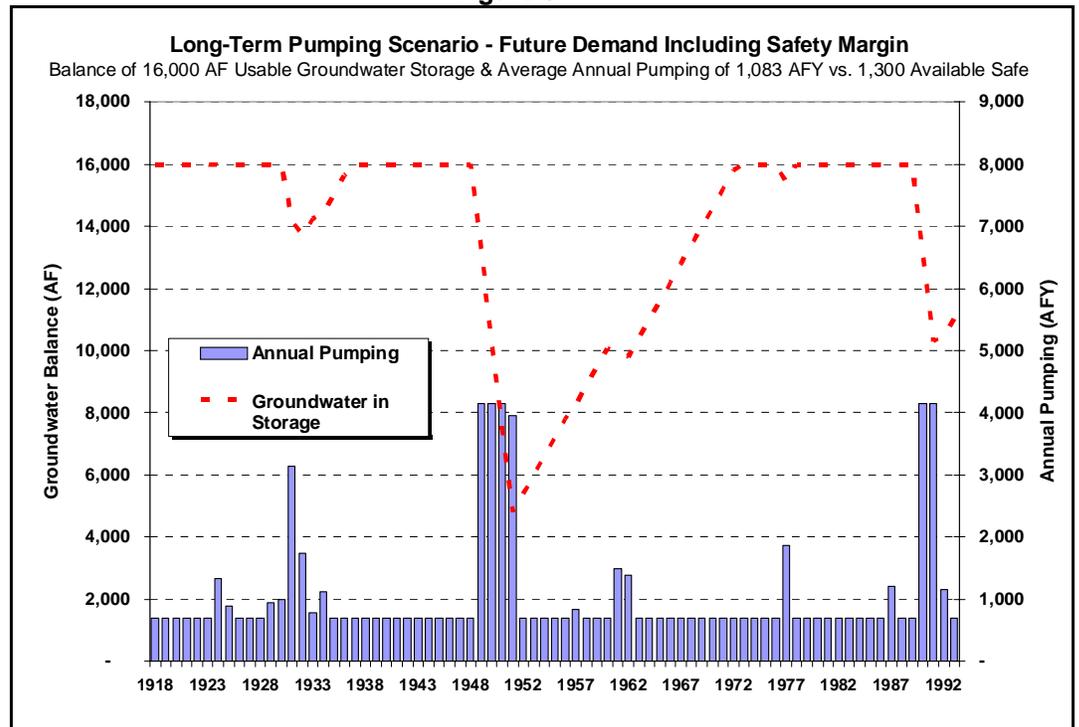
Operating Criteria: Under a conjunctive management program, the City pumps more groundwater to replace surface supplies lost during drought and less during periods of ample surface supplies, when basins are allowed to recharge. Natural recharge is augmented through releases to Mission Creek and injection at two production wells. A primary goal is to attempt to utilize the perennial yield of the groundwater basins, while maximizing available storage for back-up during drought. Recent pumping by basin is shown in Table 10, and is based on volumetric meter data.

**Table 10**  
**Groundwater Pumped by Fiscal Year (AF)**

	2006	2007	2008	2009	2010
Storage Unit No. 1	326	108	203	398	475
Foothill Basin	580	326	548	714	689
Total:	906	434	751	1,112	1,164

Figure 9 illustrates a long-term pumping scenario based on the conservative supply and demand scenario discussed in Section 5. Average pumping is 1,083 AFY compared to an available safe yield of 1,300 AFY.

**Figure 9**



Water quality constraints (primarily due to high levels of sulfide, iron, and manganese) are being addressed through an upgrade of the Ortega Groundwater Treatment Plant in Storage Unit No. 1. Seawater intrusion has been addressed in part by adding wells further inland, at Alameda Park and Santa Barbara High School and by more sophisticated modeling

as a part of the current USGS work. The production capacity of 4,150 AFY is the target for meeting long-term supply requirements, but is only used on a limited basis to avoid exceeding the long term perennial yield or causing excessive seawater intrusion. Water quality in the Foothill Basin is better and typically only wellhead disinfection is required.

The City has managed groundwater under longstanding Pueblo Water Rights and there is no adjudication or formal groundwater management plan. However, policy direction in the recently updated LTWSP includes development of a groundwater management plan in conformance with State requirements. The City has volunteered to monitor and report groundwater levels under the California Statewide Groundwater Elevation Monitoring (CASGEM) program.

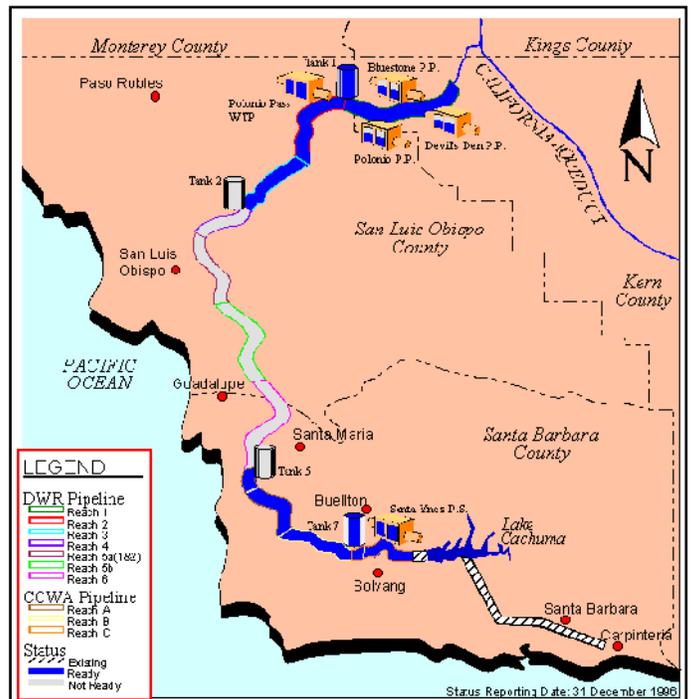
Cost Information: Variable costs for groundwater production range from \$120/AF to \$610/AF.

**State Water Project**

Description: The City, through CCWA, is a participant in the State Water Project and is eligible to receive State Project water via the 102 mile Coastal Branch of the State Aqueduct and the 42-mile Santa Ynez Extension ending at Lake Cachuma. Construction was completed in 1997. When ordered by project participants, water is delivered from Cachuma through Tecolote Tunnel along with Cachuma Project water. The City first took delivery of State Water in 2002.

Annual Yield: The City's "Table A" amount is 3,300 AFY, including a 10% drought buffer. This amount is projected to remain the same throughout the planning period of 2010 to 2030. Deliveries are subject to availability. Average long-term deliveries are estimated at 1,980 AFY in the most recent DWR State Water Project Delivery Reliability Report. Further discussion of reliability occurs later in this plan.

Operating Criteria: State Project water orders have ranged from a minimum of about 600 AF during normal supply conditions, up to the full 3,300 AF Table A amount



when dry weather reduced Cachuma storage below 100,000 AF. While there is uncertainty about future State Water Project reliability, the 2009 State Water Project Delivery Reliability Report is the best estimate of expected deliveries, and has been used by CCWA to project future deliveries through the planning period for a range of hydrologic conditions, as shown in Table 11. The City has confirmed with CCWA its intent to use these estimates for future planning, except as such projections may be modified for sensitivity analysis of future water supply reliability. Available deliveries are expected to be used as appropriate given current conditions, including delivery as needed to meet current demands, carryover, sale to other agencies, and/or banking for improved future supply reliability.

**Table 11  
Maximum Table A Amount in Selected Drought Conditions (AF)**

<b>Drought Condition</b>	<b>2010</b>	<b>2015</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>	<b>2035</b>
Long Term Average	2,084	2,064	2,043	2,023	2,002	1,982
Single Dry Year 1977	184	217	250	282	315	348
2-year drought 1991-1992	872	870	867	865	863	861
2-year drought 1990-1991	1,161	1,067	974	880	786	692
4-year drought 1929-1932	1,112	1,128	1,144	1,160	1,177	1,193
4-year drought 1989-1992	1,181	1,156	1,131	1,106	1,081	1,056
6-year drought 1929-1934	1,118	1,132	1,145	1,159	1,173	1,186
6-year drought 1987-1992	1,247	1,192	1,137	1,082	1,028	973

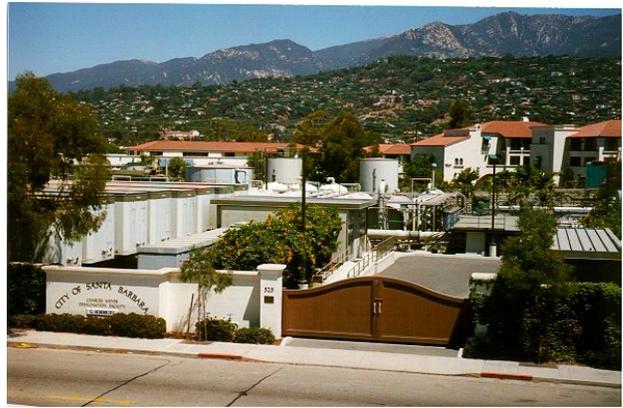
Besides delivering project water, the pipeline can be utilized to take advantage of available non-project water on a year-to-year basis to firm up deliveries during drought.

**Cost Information:** The variable costs for State Water are approximately \$200/AF for water provided by exchange with SYRWCD-ID#1 and \$300 for State Water delivered into Lake Cachuma, plus the treatment cost of \$100/AF at Cater Treatment Plant. The total project capital costs include costs for the State portion and the local (CCWA) portion of the project. The State portion capital cost is approximately \$461 million. The City's share is 7%, or approximately \$32.3 million. The local portion has a capital cost of approximately \$119 million, with a City share of 13%, or approximately \$16 million. The unit cost, including amortized capital costs and variable costs, is approximately \$1,600/AF.

***Desalination***

**Description:** The City constructed a reverse osmosis seawater desalination facility as an emergency water supply during the drought of 1987-1992. The facility has since been incorporated into the City's long-term supply plan as a way of reducing shortages due to depleted surface supplies during drought. Two neighboring water purveyors participated in the temporary project, but have since dropped out of the project. A portion of the reverse osmosis

filtration capacity was subsequently sold, leaving current capacity of 3,125 AFY. This capacity is entirely dedicated to City use, though it is currently in a long-term storage mode to reduce maintenance costs and would require approximately one year to recommission. This time frame is consistent with the anticipated use of the facility during drought, a water shortage condition that develops rather slowly.



- Annual Capacity:** With the departure of the co-participants and sale of a portion of the capacity, the desalination facility now has a production capacity of up to 3,125 AFY, subject to time and costs to recommission as noted below.
- Operating Criteria:** Relatively high variable costs for desalination make this supply the last to be used during periods of shortage. Recently updated water supply policies identify a key goal of deferring reactivation until at least the sixth year of a critical drought period.
- Cost Information:** A 2009 study by Carollo Engineers estimated variable costs at \$1,470/AF and a capital cost of \$17.7 million for reactivation. The original capital cost for construction of the facility was \$34 million. Approximately \$3 million is set aside as a reserve for this purpose. The balance would be budgeted as a part of the Water Fund Capital Program.

### ***Recycled Water***

- Description:** The City initiated planning for a water reclamation project in the early 1980's. Phase I was completed in 1989. It included addition of tertiary treatment with carbon filtration and disinfection at El Estero Wastewater Treatment Plant, a 600,000 gallon distribution reservoir and pumping station, and 5.1 miles of distribution main. Phase II was completed in 1992, adding an additional pumping station, a 1.5 million gallon reservoir, and 8.3 miles of distribution main. The system now provides recycled water to 80 accounts that serve 440 acres of landscaped area at parks, schools, golf courses, and other large landscaped areas. Several public restrooms have been retrofitted to use recycled water for toilet flushing. Water is provided at 80% of the potable water irrigation rate as an incentive for using recycled water and to compensate for additional irrigation requirements associated with salt leaching. Monitoring of salt levels in the soil was conducted twice per year from 1993 through 2003. No long-term build-up of soil salt was indicated.



**Annual Capacity:** The system has the capacity to treat and deliver 1,400 AFY; current demand is approximately 800 AFY, plus approximately 300 AFY of process water for use at EEWTP.

**Future Uses:** Optimization of the use of recycled water has been mostly accomplished with the completion of Phase II. Distribution pipelines have been constructed to all cost effective use areas, and most existing potential user sites are now connected. Use of recycled water for toilet flushing has been implemented in selected public restrooms and others are being added. New development in proximity to the recycled water main is required to utilize recycled water for landscape irrigation. Conversion or remaining potable use at current user sites, addition of new users along the existing distribution, and some limited expansion of the distribution system are expected to allow an additional 300 AFY of new usage. Recycled water users enjoy a rate that is 20% below potable irrigation for recreational sites and 60% below rates for commercial customers.

**Operating Criteria:** Recycled water is a non-variable supply in that it can only be supplied to those customers that are connected to the recycled water system. Usage is relatively constant regardless of drought conditions. Some potable water is blended with recycled water as a means of maintaining acceptable recycled water quality.

**Cost Information:** Variable costs, including pumping and treatment, range from \$157/AF for the Phase 1 zone to \$247/AF for the Phase 2 zone. The capital cost for the construction of Phases I and II was approximately \$15.2 million. The annualized unit cost, including amortized capital costs and variable costs, is approximately \$1,450/AF.

## **Projected Water Supplies**

Table 12 itemizes projected water supplies at five-year increments from 2010 to 2030. Some deliveries are projected to be reserved to build banked storage and carryover in preparation for a critical drought period. A safety margin of 10% is maintained, consistent with City water supply policies, in case of unanticipated added demand, such as annexations, or supply shortages.

## **Transfer Opportunities**

The City's primary water supply challenge is enduring the occasional prolonged droughts that have reoccurred roughly every 40 years, and are projected to occur more frequently as a result of climate change. At other times, the combination of multi-year storage capacity at Lake Cachuma and groundwater supplies to supplement reduced deliveries from Gibraltar Reservoir provides ample water supplies. Accordingly, the most attractive exchange or transfer opportunity will be the use of water banking to build a reserve for use during the critical drought period. State Water supplies in excess of year-to-year needs are projected to be available in amounts averaging 376 AFY in the long-term scenario of future conditions described in Section 5. Approximately 4,400 AF is available in the six years preceding the local critical drought period of 1947 to 1951. This projected availability is the basis of updated water supply policy to investigate banking opportunities as the primary means of deferring use of desalination until at least the sixth year of a drought.

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**Table 12**  
**Water Supplies - Current and Projected (AF)**

<b>Potable Water Supplies</b>	<b>Actual</b>	<b>Projected</b>			
	<b>2010</b>	<b>2015</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>
Wholesaler: CCWA/State Water	2,084	2,064	2,043	2,023	2,002
<i>Less State Water Deliveries to Carryover/Banked Storage</i>	0	-150	-250	-300	-200
Cachuma Project	8,277	8,172	8,070	7,967	7,863
<i>Less Project Water to Local Carryover Storage</i>	-640	-1,300	-1,283	-1,313	-1,297
Gibraltar Reservoir/Devils Canyon	2,933	3,206	3,206	3,206	3,206
Mission Tunnel	1,220	1,125	1,125	1,125	1,125
Groundwater	1,164	1,083	1,083	1,083	1,083
Desalination	0	0	0	0	0
<b>Total Potable Supplies:</b>	<b>15,038</b>	<b>14,200</b>	<b>13,994</b>	<b>13,791</b>	<b>13,782</b>
Less Blend Water:	-651	-300	-275	-275	-275
Less Net Exports to GWD:	-38	0	0	0	0
Less Export to Groundwater Storage:	-75	-150	-150	-150	-150
<b>Potable Supplies Available for Retail Demand:</b>	<b>14,274</b>	<b>13,750</b>	<b>13,569</b>	<b>13,366</b>	<b>13,357</b>
Less Projected Retail Demand:	-12,731	-12,436	-12,226	-12,093	-12,005
<b>Available for Safety Margin:</b>	<b>1,543</b>	<b>1,314</b>	<b>1,343</b>	<b>1,273</b>	<b>1,352</b>
<b>% Available for Safety Margin ( 10% goal per City policy ):</b>	<b>11%</b>	<b>10%</b>	<b>10%</b>	<b>10%</b>	<b>10%</b>
<b>Notes:</b>					
1) Above projections assume years of normal supply availability 2) Adequate water supply during critical drought depends on carryover/banking of SWP and/or Cachuma water during normal years 3) Projections reflect minor projected increases in demand, which are offset by demand reduction from new conservation & recycled water 4) State Water delivery projections per CCWA 5) Cachuma Project yield reflects 5% reduction over 20-year planning period due to sedimentation 6) Gibraltar yield based on 70% of estimates used in Draft EIR for Cachuma water rights hearing (Mitigation Mode - normal years) 7) Mission Tunnel yield based on Draft EIR for Cachuma water rights hearing 8) Groundwater: average pumping amounts for 2030 conditions under LTWSP performance analysis at 14,000 + 10% safety margin					
<b>Recycled Water Supplies</b>	<b>Actual</b>	<b>Projected</b>			
	<b>2010</b>	<b>2015</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>
Recycled Water from Tertiary Filters (net of process water)	45	575	675	750	825
Blend Water	651	300	275	275	275
<b>Total Production for Recycled Retail Demand:</b>	<b>696</b>	<b>875</b>	<b>950</b>	<b>1,025</b>	<b>1,100</b>
<b>Notes:</b>					
1) 2010 reflects current secondary process issues; assumed to be resolved by 2015, allowing reduction in blend amounts 2) Reflects connection of 300 AFY of new recycled water demand by 2030					

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## Future Water Supply Projects

As mentioned above, investigation of options for banking unused supplies of State Water is expected to be the primary option for deferring reactivation of the desalination facility. Other planned water supply projects include:

- Demand Reduction/Water Conservation Program: As described herein, the City will continue to implement a cost effective water conservation program in compliance with the CUWCC BMP's and equivalent to Program B as identified in the Water Conservation Technical Evaluation prepared by Maddaus Water Management.
- Sedimentation Management: An updated assessment of the City's Gibraltar Reservoir is planned to determine if there are cost effective options for halting loss of storage capacity. Additionally, the City will promote the development of a long term strategy to minimize loss of storage at Lake Cachuma, in conjunction with Cachuma Project Member Units and other appropriate parties, including State and Federal agencies.
- Pass Through Operations for Gibraltar Reservoir: As noted above, the existing Upper Santa Ynez River Operations agreement provides for storing Gibraltar water in Lake Cachuma to replace storage capacity lost to sedimentation. The City is working with the other parties to the agreement to develop information for environmental analysis of a Warren Act contract between the City and the U. S. Bureau of Reclamation.
- Ortega Groundwater Treatment Plant Rehabilitation: As described under the Groundwater section, water quality in Storage Unit No. 1 requires that pumped water be treated to remove sulfides, iron, and manganese prior to introduction into the distribution system. Final design has been completed and the project is expected to be bid in late 2011 or early 2012.
- Optimized Groundwater Management: Updated groundwater modeling by USGS will be used to assess strategies for groundwater management, including optimal use of available recharge, injection of potable water for artificial recharge, injection of recycled water as a barrier to seawater intrusion. Sites for new or replacement production wells will be evaluated with the goal of minimizing seawater intrusion. The City will develop a Groundwater Management Plan, consistent with State law, to provide for the orderly and responsible use of the City's groundwater resources.
- Expanded Recycled Water Use: Remaining system capacity of 300 AFY will be used to connect new users, primarily along the existing distribution system constructed during Phase 1 and Phase 2 of the project, with possible extensions where cost effective. Improvements to the secondary treatment process are planned, which will have the added benefit of reducing blend water requirements for recycled water. Options for further reducing blending will be investigated.

## Implementation Schedule

Table 13 identifies implementation time frame for items related to the UWMP and provides notes on implementation of plan elements since adoption of the 2005 UWMP.

**Table 13  
Implementation Schedule**

Description of Item	Implementation Schedule	Notes on Implementation Since 2005 UWMP Adoption
Water Conservation Program	Ongoing pursuant to MOU Regarding Urban Water Conservation, Long Term Water Supply Plan, and Water Conservation Act of 2009  Implement "Program B" water conservation measures	The program has been ongoing since adoption of the 2005 UWMP update. Results suggest demand reduction in excess of the program goal of 1,500 AFY.
Sedimentation management at surface reservoirs	Conduct sedimentation management alternatives assessment at Gibraltar Reservoir during FY 2012  Promote a joint effort to develop a long term strategy for sedimentation management at Lake Cachuma	Regular bathymetric surveys are conducted to monitor change in reservoir capacities
"Pass Through" operations for storage and conveyance of Gibraltar water at Lake Cachuma	Warren Act contract expected to be executed in FY 12, allowing "pass through" accounting to commence	Pass Through Agreement continues to guide operation of Gibraltar Reservoir; decision to implement Pass Through mode was motivated by substantial siltation from 2007 Zaca Fire.
Ortega Groundwater Treatment Plant Rehabilitation	Completion expected in FY 14	Comprehensive feasibility, design, and pilot testing completed.
Optimized groundwater management	Initiate development of a Groundwater Management Plan during FY 12  Identify production wells in need of replacement or relocation; FY 12 & 13	Multiple Objective Optimization Model (MOOM) by USGS is available for use in testing water supply scenarios, seawater intrusion impacts, and optimal well placement.  Initiated a 3-year project with USGS to update MOOM and add 3-dimensional water quality component for more accurate assessment of seawater intrusion.  Second of two new wells constructed completed.
Expanded recycled water use	Ongoing requirements for use of recycled water where available. Inventory of potential added uses being verified. Add 75 AFY of new recycled water demand by 2015 as a part of compliance with Water Conservation Act of 2009.	Plant inventory has been created and is made available to recycled water users. Development applications subject to the City's recycled water use requirement, as applicable. Recycled water demonstration garden established at El Estero Wastewater Treatment Plant

<b>Description of Item</b>	<b>Implementation Schedule</b>	<b>Notes on Implementation Since 2005 UWMP Adoption</b>
Enhancement of yield from State Water Project facilities	Investigate options for banking unused State Water when available, for use in mitigating effects of critical drought period and deferring reactivation of the desalination facility. Investigation planned for FY 2012.	Held initial discussions on water banking with relevant contacts.
Desalination Facility	Maintain as permanent part of City water supply in long term storage mode to minimize maintenance costs; ongoing.	Long-term storage mode has continued
Demand/Revenue Tracking	Ongoing, with monthly water production reports and semi-annual revenue reports to Water Commission and City Council	Demand and revenue tracking are an integral part of the budget adoption process and have continued.
Conduct an emergency water supply analysis to update current emergency procedures and evaluate the accuracy and scope of expected scenarios.	Anticipated during FY 12 & FY13	Improvements have been made to SCADA systems, distribution system, and back-up power supplies.

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## **Section 5: Water Supply Reliability and Water Shortage Contingency Plan**

### **Water Supply Reliability and Drought Planning**

During the recent update of the LTWSP, the City paid particular attention to the effects of water shortage caused by drought. This is appropriate based on a long history of drought in this region. Two key issues related to drought were analyzed:

1. Planned Duration of Critical Drought Period (“Multiple Dry Year Period”)

The critical drought period for the City’s water supply occurs when there are multiple consecutive years of below average rainfall. This is due to the particular hydrology of the Santa Ynez River, where little or no inflow to Lake Cachuma typically occurs until at least average rainfall has occurred. When this condition of average or less rainfall continues for multiple years in succession, the storage level of Lake Cachuma drops and shortages in deliveries occur. Based on historical data, the critical drought period has had a duration of five years, with the worst local drought being the drought of 1947-1951.

Climate change has the potential to impact the water supply, though it is still unclear whether this will have a significant effect during the planning period. To the extent information is available for the local area, overall rainfall amounts would be expected to be similar to recent history, but an increasing frequency of extreme rainfall events can be expected. This has the potential to result in an extended irrigation season with some associated increase in demand. From a water supply perspective, more concentrated rainfall events may have the benefit of increased inflow to Lake Cachuma. Guidance from the state planning agencies is that California can expect a 20% increase in both the frequency and the duration of dry periods. For the City’s water supply this would suggest a critical drought period frequency of perhaps once every 30 years, instead of 40 years, and a duration of 6 years, instead of 5 years. Even though climate change impact information is incomplete and still undergoing critical review, the six-year drought period is a reasonable test and staff has used it for critical drought period analysis of the water supply, as discussed below under “Water Supply Performance.”

2. Role of Desalination

The City’s desalination facility is a vital resource as a back-up for potential prolonged drought and unforeseen interruptions of the water supply and would help mitigate the economic impact of such situations. It is also a reliable source of water, once in operation. However, as noted above, reactivation of the facility will result in significant costs, if only for the planning and design work that would be needed to start the process. In recent years, a dry period of only three years has been enough to trigger the start of planning to reactivate the facility in case of continuing dry weather. In 2004, after three years of drought, the storage level at Lake Cachuma had been reduced to about 70,000 AF out of 190,000 AF (37% of capacity) and the City was beginning this process of planning for reactivation.

As a result of discussion of this issue between staff and the Water Commission, the water supply has been modeled to stretch available Cachuma supplies over a potential 6-year drought period, with the goal of deferring the reactivation process, i.e. to plan for operation in the sixth year of a critical drought period instead of the fifth year. This would reduce the frequency of the planning and design effort, as well as reducing the likelihood that the substantial expense of actually reactivating the desalination facility would be needed. This is another basis for the six-year critical drought period used in performance modeling.

### **Water Supply Performance – Multiple Dry Year Periods**

The three charts included in Appendix E are based on a worksheet model developed to provide a long-term simulation of the City's water supply as a part of the LTWSP update. The City considers this sort of long term analysis to be the best way to illustrate water supply vulnerability during multiple year dry periods of various durations.

The worksheet uses a water supply target of 14,000 AFY of potable and recycled water production, plus 10% safety margin as applicable based on the various scenarios. The target is based on:

- The combined effects of new development during the planning period;
- Reductions in water use due to updated plumbing codes and appliance standards, the effects of the City's water conservation program; and
- The statutory requirement to meet a reduction in per capita daily water use by 2020.

The 14,000 AFY value also represents the rounded 5-year average demand for 2006 through 2010. Note that this is conservative compared to actual projected urban water use under the Water Conservation Act of 2009. Given uncertainties in water supply in California, it is appropriate to be conservative when viewing water management from the supply perspective.

Local supplies are estimated using results from the Santa Ynez River Hydrology Model developed by the Santa Barbara County Water Agency. State Water delivery estimates are based on the "Future Conditions" assumptions in DWR's 2009 State Water Project Delivery Reliability Report (as used for CCWA delivery projections for 2030), but modified to assume a delivery limit of 50% of Table A amount in any year. This is to provide a sensitivity analysis to illustrate the potential effect of restrictions similar to those experienced during the period of 2008-2010.

An additional hypothetical year was added at the end of the 1947-1951 drought (the worst historical drought on record for the Santa Ynez River) to simulate a 6-year critical drought period. For this sixth year, deliveries from Gibraltar, Mission Tunnel, and SWP are assumed to be the average of the preceding five years of drought. Cachuma is assumed to have negligible inflow during year six and the 5-year modeled yield is stretched out over the 6-year period. The charts illustrate how the City's water supplies would be used in the most cost effective manner to meet the projected demand during varying water supply conditions, ranging from very wet to very dry. The worksheet was used to explore the potential to defer the use of desalination at least until the sixth year of a drought.

Three scenarios are represented:

- The first represents “Current Conditions”, with Cachuma entitlement of 8,277 AFY and no use of the safety margin.
- The second represents the near-term condition with Cachuma entitlement also at 8,277, but with a 10% safety margin included.
- The third represents 2030 conditions, with projected future Cachuma entitlement at 7,863 AFY and 10% safety margin included.

Planned demand reductions during the critical drought period are set at 10% in year 4, 15% in year 5, and 15% in year 6.

A category called “Drought Supplies” is used to indicate water that would be used defer the use of desalination, either from unused State Water that is banked for use during dry periods or from the purchase of water during the critical drought period. The worksheet estimates that approximately 4,400 AF of unused State Water would be available for banking if contractual arrangements could be made to store the water for future use. Assuming a 50% deduction for the service of banking the water, about 2,200 AF of water would be available to meet the need for drought supplies. Water purchases would be pursued if additional water were needed. The desalination facility is proposed to remain a part of the City’s water supply and would be used, if needed, to address shortages remaining after the use of banked water and purchased water.

The worksheet uses supplies as needed to meet the water supply target according to the following sequence of priorities:

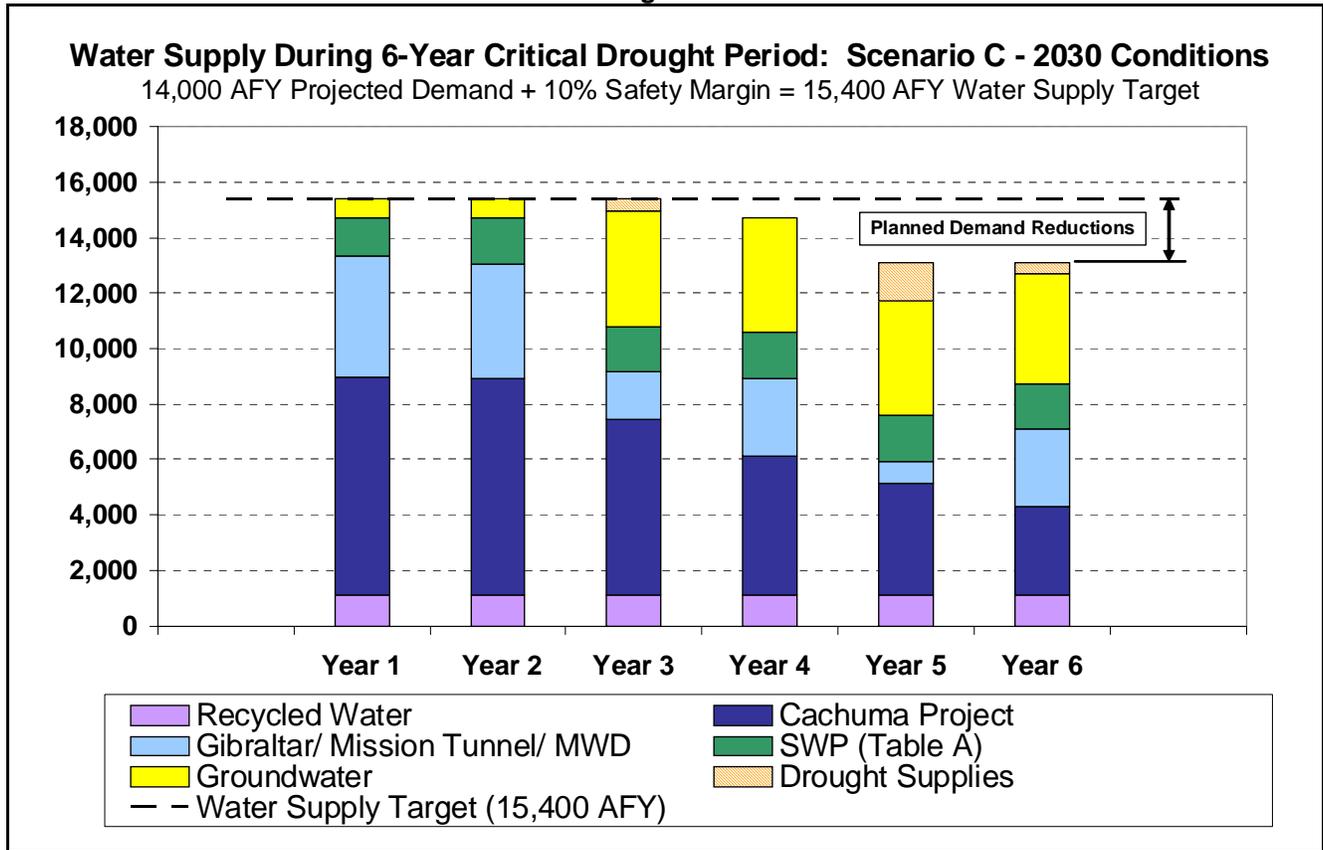
1. All available water from Gibraltar, Mission Tunnel and the Montecito Water District transfer, plus the 1,100 AFY of recycled water;
2. Minimum groundwater usage of 700 AFY;
3. The City’s “exchange water” obligation of SWP Table A water (600 AFY);
4. Available Cachuma entitlement (except that remaining SWP Table A water is taken in year 2 and later to preserve available Cachuma water)
5. Remaining available SWP Table A water;
6. Added groundwater pumping up to the maximum amount of 4,150 AFY, subject to a cumulative pumping limit to minimize seawater intrusion;;
7. Deliveries of “Drought Supplies” (banked water or purchased water as available) through SWP facilities.
8. Desalination (if necessary)

The worksheet is set up to invoke Planned Demand Reductions in years 4, 5, and 6 prior to taking delivery of Drought Supplies. The cumulative drawdown of available groundwater is tracked.

The water supply charts illustrate that the City’s water supply can be met in most years with limited groundwater pumping, an average of only about 75% of available State Water, no drought supplies (banked water, purchased water, or desalination), and no need for extraordinary demand reductions. The real test of the water supply is the six-year critical drought period, beginning with model year 1947. Note that the sixth year is a hypothetical year

that extends the historical 5-year drought to a 6-year drought. The 6-year critical drought period is highlighted in Figure 10 below.

Figure 10



Key points illustrated include:

- Years 1 & 2: much like any non-drought year (mostly surface water, plus limited groundwater pumping)
- Year 3: Cachuma deliveries reduced to stretch remaining supplies; maximum groundwater pumping begins; small amount of Drought Supplies required
- Year 4: First year of Planned Demand Reductions (4% of allowed 10%); further reduction at Cachuma is offset by some increased inflow at Gibraltar; no Drought Supplies required
- Year 5: 15% Planned Demand Reductions; 1,364 AF of Drought Supplies taken; zero water delivered from Gibraltar
- Year 6: 15% Planned Demand Reductions; maximum pumping constrained slightly by the cumulative limit; some Drought Supplies required as a result; rainfall provides water from Gibraltar, but not enough to increase Cachuma deliveries.

**Single Dry Year and Three Year Dry Periods**

As discussed above, the City’s diverse water supply and multi-year storage capacity at Lake Cachuma minimize the effect of a single dry year. An example is 1977 where rainfall in the local (Santa Ynez River) and State Water Project watershed were below average. The water supply charts illustrate that State Water deliveries are significantly reduced, but local surface

water deliveries remain about average and the small difference is made up with added groundwater, with no need to implement any extraordinary measures. A dry period over the next three years is best illustrated by Year 1 through Year 3 in Figure 10.

### **Water Quality Impacts on Reliability**

Water quality has potential impacts on the City's water supply in three areas:

- Reaction of Dissolved Organic Material to Produce Disinfectant Byproducts: More stringent State drinking water standards for disinfection byproducts have been adopted, causing the potential for violations due to relatively high levels of dissolved organics in water coming to Cater Treatment Plant from surface water supplies. The City has recently finished a complete rehabilitation of the plant and is in the pilot stage of a study to determine the best manner to insure the Cater water can continue to meet applicable standards for disinfection byproducts. Several feasible options have been identified and it is expected that facilities can be constructed to successfully address the problem.
- Groundwater Quality: Much of the City's groundwater supply exceeds secondary standards for taste and odor, as well as iron and manganese. In the Foothill Basin, the levels are low enough that they can be successfully treated at the wellhead. In Storage Unit No. 1, water has traditionally been pumped to the Ortega Groundwater Treatment Plant before being put into the distribution system. A complete overhaul of the plant is planned. It has just completed the pilot phase and is being designed. The completed project will allow full use of the City's groundwater resources and may play a part in complying with new standards for disinfection byproducts mentioned above.
- Recycled Water: Due to hardness of local water supplies, many customers use the ion exchange process to soften water at their homes and businesses. The result is added salt, particularly sodium chloride, in the City's recycled water. This has been addressed by monitoring salt levels in the soil over a ten-year period and by blending potable water with recycled supplies to meet water quality standards for irrigation. The City also promotes the use of potassium chloride as a substitute for sodium chloride.

### **Water Shortage Contingency Plan**

On November 1, 1988 the City Council adopted a Drought Contingency Plan in anticipation of worsening drought. While the plan provided useful guidance during the drought, the City's experience during the drought suggested that a revised plan should have more flexibility. This is especially important with the increased diversity of the City's current water supply. Accordingly, the original Drought Contingency Plan has been updated and is included herein.

The plan is intended to provide guidance, rather than absolute direction, for City action in response to water shortage. The stages are defined in relation to maximum acceptable shortage of 10% - 15% per policy in the updated Long-Term Water Supply Plan. A moving 12-month total of production is used to monitor water usage during periods of normal supply and during water shortages, with actual consumption compared to the target on a monthly basis.

### Water Use Restrictions

Chapter 14.20 of the Santa Barbara Municipal Code (applicable portions attached as Appendix F) defines specific water use restrictions that apply during water shortage conditions, subject to Council direction. These include the following:

1. Prohibition on water waste (prohibited at all times regardless of stage);
2. Runoff prohibited (prohibited at all times regardless of stage);
3. Use of potable water prohibited when recycled water is available and deemed feasible (applicable at all times regardless of stage);
4. Restaurant notices required; no water service without request;
5. Prohibition on hosing of hard surfaces;
6. Operation of ornamental fountains prohibited;
7. Water shortage notices required in hotel/motel rooms;
8. Restrictions on irrigation (degree of restriction may vary from night-time irrigation only to complete prohibition on irrigation, except by hand-held bucket);
9. Shut-off nozzle required for boat and vehicle washing;
10. Introduction of water to swimming pools restricted;
11. Potential interruption of service to irrigation meters.

Action under each shortage stage includes a determination as to which, if any, of the above measures are necessary.

### Rates and Revenue Issues

Since 1989 the City has used an inverted block rate billing system providing standardized allotments for residential customers based on the type of building and number of dwelling units. Fiscal Year 2011 rates are shown in Appendix G. Historical usage has not been used as the basis for allotments since it tends to penalize customers who practice efficient water use. Commercial and industrial allotments are based on historical off-peak usage since standardized allotments are infeasible for such customers. The system worked well during the 1987-1992 drought when allotments and block prices were modified as necessary to shape demand and insure adequate revenue. The system proved to be workable even for the 50% shortages experienced. It is important to note that even severely increased rates will have the mixed effect of reducing demand and providing added revenue to offset losses from reduced overall consumption. The City's experience has been that block prices and allotments are best determined based on actual circumstances rather than trying to determine appropriate values in advance based on hypothetical situations. It is important to note that a continuing decline in demand will result in increased unit rates to generate the revenue required to fund the mostly fixed costs of operating the water system.

### Normal Supply Stage

Definition: Supplies are considered normal when the projected water supply availability is sufficient to equal or exceed the projected normal demand for the next three years.

Actions:

- ⇒ Continue efforts to preserve water supply sources, such as management of watersheds to minimize siltation, banking of water as feasible to firm up deliveries through the State Water Project, and development of optimal groundwater pumping capacity;
- ⇒ Continue promotion of long-term water conservation practices designed to improve efficiency without impacting lifestyles, including high efficiency plumbing retrofits, low water using landscaping, efficient irrigation practices, public information regarding water awareness, and inverted block rate pricing;
- ⇒ Extend the use of recycled water where feasible and cost effective;
- ⇒ Monitor demand in terms of actual consumption and cumulative commitments to serve;
- ⇒ Water use restrictions are limited to prohibition of water waste.

Stage 1 Water Shortage Condition -- "Water Shortage Watch"

Definition: A short-term water shortage condition declared by Resolution of the City Council upon being advised that projected supply availability during the next three years may be approximately 10% less than projected normal demand.

Actions:

- ⇒ Staff prepares a report to the Water Commission and City Council addressing:
  - Status of surface water supplies;
  - Status of City's groundwater resources and pumping capability;
  - Availability of desalination facility and related cost and permitting issues;
  - Projected deliveries of State Water Project entitlement;
  - Anticipated availability of banked water and one-time purchase of water through the State Dry Weather Purchase Program or other short term transfers of water;
  - Possible reduction in Cachuma deliveries to City in excess of reductions agreed to by member units to allow build-up of City carryover at Cachuma.
  - A range of water supply scenarios based on various levels of assumed rainfall;
- ⇒ Water Commission and City Council consider Staff recommendation regarding adoption of a resolution declaring a Stage I Water Shortage Condition.
- ⇒ Cachuma Project deliveries reduced by up to 20% as agreed by Member Units when Project storage drops below 100,000 AF;
- ⇒ Public advised of the City's water supply situation; extraordinary reductions in water use are not anticipated to be necessary at this stage.
- ⇒ Water use restrictions are limited to prohibition of water waste.

Stage 2 Water Shortage Condition -- "Water Shortage Alert"

Definition: A short-term water shortage condition declared by Resolution of Council upon being advised that projected supply availability during the current or impending water year is anticipated to be approximately 10% less than projected normal demand.

Actions:

- ⇒ Staff prepares a report to the Water Commission and City Council addressing:
  - Updated water supply scenarios based on various levels of assumed rainfall;
  - Need for:
    - ✓ Demand reduction by the public;
    - ✓ Water use restrictions;
    - ✓ Design and permitting work associated with temporary water supply augmentations;
    - ✓ Possible activation of the desalination facility;
  - Revenue projections and appropriate changes in water rates;
- ⇒ City Council considers staff and Water Commission recommendation regarding adoption of a resolution declaring a Stage II Water Shortage Condition.
- ⇒ Public advised of need for 10% added water conservation savings.
- ⇒ City Council considers need to begin planning and design work for activation of the desalination facility.
- ⇒ Suspension of development approvals is considered.
- ⇒ Determine the need for water use restrictions pursuant to SBMC Section 14.20.215 and incorporate appropriate exemptions into the water shortage resolution.
- ⇒ Public information effort is aimed at advising the public regarding:
  - The City's water supply situation;
  - Efforts being made by the City to minimize impacts of the water shortage;
  - The public's role in achieving demand reductions;
  - Staff enforces water use restrictions, pursuant to Council direction; and
  - Staff implements rate changes, pursuant to Council direction.

Stage 3 Water Shortage Condition -- "Water Shortage Emergency"

Definition: A short-term water shortage condition declared by Resolution of Council upon being advised that there is a projected supply shortage of greater than 10% as compared to the projected normal demand.

Actions:

- ⇒ Staff prepares a report to the Water Commission and City Council addressing:
  - Updated water supply scenarios based on various levels of assumed rainfall;
  - Need for:
    - ✓ Further demand reduction by the public;
    - ✓ Increased water use restrictions, including potential prohibition on uses other than drinking water and sanitation;
    - ✓ Accelerated design, permitting, and construction work associated with temporary water supply augmentations;
  - Review of revenue projections and appropriate changes in water rates;
  - Evaluate supply availability from desalination facility;
- ⇒ City Council considers staff and Water Commission recommendation regarding adoption of a resolution declaring a Stage III Water Shortage Emergency Condition pursuant to

### California Water Code, Chapter 3.

- ⇒ Revised demand reduction target is announced to public, accompanied by information about how to achieve required reductions and efforts being made by the City to resolve the water shortage condition.
- ⇒ Water use restrictions adjusted as necessary pursuant to Santa Barbara Municipal Code Section 14.20.215.B.
- ⇒ Project potential need for activating desalination facility, including potential expansion of capacity.
- ⇒ Evaluate revenues and the need for further rate changes; staff implements changes pursuant to Council direction.
- ⇒ Consider further action regarding suspension of development approvals.
- ⇒ Water use restrictions enforced by staff pursuant to Council direction.

While the City's long-term supply planning is based on a maximum planned shortage of 10% - 15%, unforeseen circumstances may result in the need to respond to shortages of up to 50%. Based on the City's experience with the 1987-1991 drought, the measures identified above are expected to be useful in achieving short-term demand reductions of up to 50%, carefully tailored to the situation at hand. Flexible application of block rates and allotments, water use restrictions, and public information will be used to meet the required demand reduction target. Steeply inclined block rates would partially offset lost revenue due to demand reductions. City reserve policies dictate maintaining Water Fund reserves at about \$12 million (about 30% of annual budget) to address a variety of contingencies. This will also help mitigate revenue impacts associated with a severe shortage. In addition, a separate \$3 million reserve is maintained for potential reactivation of the City's desalination facility, or other capital projects associated with severe drought.

### Measuring and Monitoring Actual Reductions

Water is produced into the distribution system to meet the demand. Therefore measurement of water production is a simple mechanism for monthly, weekly, or even daily monitoring of water demand to determine the effectiveness of demand reduction measures. Such monitoring proved feasible and useful during the previous severe drought.

### Catastrophic Supply Interruption

Besides drought, the City may experience a catastrophic interruption of the water supply as a result of natural disasters such as earthquake or tsunami, a regional power outage, terrorism, wildfire, or sabotage. Emergency administrative procedures are detailed and kept updated in the City's Emergency Operations Center Manual. Noted below are planning and response measures particularly associated with the City's water supply.

Preparations for responding to catastrophic events:

- A diverse portfolio of supplies provides redundancy that increases the likelihood of being able to meet emergency needs even under catastrophic conditions.

- Primary water supply sources and the main treatment plant have been planned to flow to the City by gravity to reduce normal operating costs and minimize disruption during disasters.
- A groundwater production system has been developed and maintained to augment supplies to the distribution system or provide direct emergency drinking water supplies should the distribution system be put out of service. In the event of prolonged power outage, power would be provided by portable generators.
- Back-up power supplies with automatic transfer switching and SCADA control capability have been installed at the primary water treatment plant and critical distribution pump stations.
- The potentially unstable and uncovered Sheffield Reservoir has been demolished and replaced with underground tanks designed and built to current seismic standards.
- Computerized telemetry system (SCADA) is being provided throughout the distribution system to monitor system problems, whether minor day-to-day problems or major disruptions.
- An ongoing program of water main replacement targets sections of the distribution system with the highest history of breaks.
- Upgraded security, including more secure fencing, video monitoring, and alarms, is being provided at all water supply facilities.
- Public access to water supply facilities has been limited for security reasons.
- City distribution system crews are trained in pipe repair and replacement as a part of their normal duties and are continually ready to perform such work on an emergency basis as needed.
- All City employees are designated as emergency service workers and would be activated to do damage assessment and repairs, and to fill gaps left by staff that live out of town and may be unable to get to Santa Barbara due to disaster.
- The City's emergency response program includes emergency communications procedures that would be used for notifying the public about emergency water use restrictions, potential need to boil tap water prior to drinking, and locations where drinking water is available in the event of widespread distribution system failure.

Actions to be implemented during catastrophic conditions:

- Mobilization:
  - Supervisors assemble at Public Works Yard, 630 Garden Street
  - Determine which staff are present and which need to be contacted
  - Contact absent staff and direct them to report once families are safe
  - Check status of all equipment, refuel, and restock supplies on vehicles
  - Water Resources Laboratory staff mobilize at City lab and prepare for anticipated water quality test requests
- Dispatch crews to inspect, patrol, and report on condition of facilities and distribution piping in designated areas of the system:

Group A:

Vic Trace Reservoir & La Coronilla Pump Station  
 La Mesa Reservoir  
 Escondido Reservoir & Pump Station

Hope (Calle Las Caleras) Pump Station,  
Hope Reservoir  
Campanil Hills Pump Station

Group B:

Reservoir No. 1  
East Reservoir & Bothin Pump Station  
El Cielito Reservoir and Skofield Pump Station  
Skofield Reservoir  
La Vista Reservoir  
Northridge Pump Station

Group C:

Reservoir No. 2  
Sheffield Reservoirs No. 1 and No. 2 and El Cielito Pump Station  
South Portal of Mission Tunnel  
Rocky Nook Pump Station  
Sheffield Pump Station  
Tunnel Road Reservoir & Pump Station  
Cater Cross-Tie Pump Station

Group D:

Wastewater Lift Stations at:  
Campanil  
Braemar  
Cliff Drive  
Linda Lane  
El Camino De la Luz

Group E:

Wastewater Lift Stations at:  
Skofield  
La Colina  
Via Lucero  
Tallant Road  
Miradero Lane  
Andante  
Vista Elevada

- Assign qualified staff to use SCADA telemetry system, to the extent it is still functional, to determine the extent of system damage and the most critical isolation points on the distribution system.
- Conduct a complete inspection of the Cater Water Treatment Plant and Ortega Groundwater Treatment Plant to determine status and extent of damage.
- Contact Cachuma Project operators (USBR and COMB) to determine condition of Bradbury Dam and related facilities.
- Contact the City's dam caretaker at Gibraltar Reservoir to determine condition of Gibraltar Dam and related facilities.
- Assess condition of City groundwater wells by measuring water levels and well depth, and taking water samples for analysis of water quality.
- Assess the condition of two tunnels (Tecolote Tunnel from Lake Cachuma and Mission Tunnel from Gibraltar Reservoir) by measuring flow from the tunnels. While earthquake

may result in tunnel collapse, it is likely that some residual flow from tunnel infiltration will be available and will flow to the City's treatment plant by gravity.

- Assign qualified staff to utilize the City's hydraulic computer model to simulate identified field deficiencies and run scenarios to identify the most efficient repair, isolation, or reconstruction recommendations.
- Prioritize distribution system repairs to best meet critical needs, including fire fighting, drinking water, and sanitation; consider reserving a portion of available potable supply for drinking water purposes in the event of prolonged interruption.
- Develop materials list for treatment plant and distribution system repairs and communicate with potential suppliers.
- Allocate available portable generators and pumps according to highest need for groundwater wells, flood remediation, sanitation, firefighting, or powering emergency facilities.
- Develop a clear message for dissemination to the public regarding:
  - Status of distribution system
  - Water use prohibitions
  - Allowable water uses
  - Potential need to boil drinking water prior to consumption
  - Location and availability of emergency drinking water in the event of distribution system failure.

### *Potential Catastrophic Interruption Scenarios*

Given the diversity of the City's water supply, there is a range of catastrophic supply interruption scenarios that may occur. At the extreme end of the range, a catastrophic seismic event could include failure of both Gibraltar Dam and Bradbury Dam (Lake Cachuma), also impacting State Water deliveries. Damage to groundwater wells would be expected as well. Table 14 summarizes some foreseeable interruptions of lesser, but more probable, magnitude. In an actual event, detailed analysis would be conducted to assess the extent and duration of interruption and the alternatives for short term replacement of lost supplies.

**Table 14  
Catastrophic Interruption Scenarios**

Description	Projected Water Supply Reduction	Anticipated Duration	Response
<u>Damage limited to distribution system:</u> Main breaks in various parts of the City	No reduction in supply; delivery capability interrupted to portions of the City	Ranging from days to months depending on extent of damage	<ul style="list-style-type: none"> <li>• Valve off damaged sections</li> <li>• Inventory customers without service &amp; provide for access to emergency drinking water as necessary</li> <li>• Prioritize repair efforts based on health, safety, and sanitation</li> </ul>
<u>Collapse of Mission Tunnel:</u> Supplies from Gibraltar Reservoir and Mission Tunnel infiltration interrupted	Initial loss of 35% to 50% of potable supplies; reduced to 12% to 27% by increasing Cachuma deliveries and groundwater pumping	Ranging from months to a year or more	<ul style="list-style-type: none"> <li>• Assess extent of remaining tunnel flow</li> <li>• Restrict irrigation uses</li> <li>• Water usage restrictions, pricing, and public notification to reduce water use to targeted level based on actual circumstances</li> <li>• Consider increases in State Water Project delivery requests</li> <li>• Initiate emergency design and construction process for repair of tunnel</li> </ul>
<u>Collapse of Tecolote Tunnel:</u> Supplies from Lake Cachuma, tunnel infiltration, and State Water Project interrupted	Initial loss of 50% to 65% of potable supplies; reduced to 15% to 30% by increasing Gibraltar deliveries and groundwater pumping	Ranging from months to a year or more	<ul style="list-style-type: none"> <li>• Assess extent of remaining tunnel flow</li> <li>• Curtail most or all irrigation uses</li> <li>• Water usage restrictions, pricing, and public notification to reduce water use to targeted level based on actual circumstances</li> <li>• Consider extent to which supplies are available to assist neighboring agencies affected by loss of Cachuma deliveries</li> <li>• Participate with COMB &amp; USBR in emergency design and construction process for repair of tunnel</li> </ul>
<u>Collapse of both Tecolote and Mission Tunnels:</u> Supplies from Cachuma, Tecolote Tunnel infiltration, State Water Project, Gibraltar Reservoir and Mission Tunnel infiltration interrupted	Initial loss of up to 100% of normal potable supplies; reduced to 66% by initiating groundwater pumping	Ranging from months to a year or more	<ul style="list-style-type: none"> <li>• Assess extent of remaining tunnel flow</li> <li>• Activate all available groundwater wells at maximum production levels</li> <li>• Consider public notification to accumulate emergency personal drinking water supplies while distribution system remains functional</li> <li>• Curtail all customer use other than water used for drinking – priority will be to maintain all available supplies and distribution capability for drinking water, sanitation, and firefighting</li> <li>• Initiate selected shut-down of portions of the distribution system to maintain functional pressure and flow in the remaining system; priority areas will be identified based on firefighting needs and feeding emergency drinking water distribution stations</li> <li>• Consider shutting off customer service connections to assist in maintaining distribution system functionality</li> <li>• Initiate emergency design and construction process for repair of tunnels</li> <li>• Initiate emergency design and construction process for reactivation of desalination facility for mid-range contribution to water supplies</li> </ul>

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## **Section 6: Demand Management Measures**

The City is a long-term leader in water conservation. The City's Water Conservation Program began as a response to drought in the late 1970's. In 1988, the Water Conservation Program was expanded pursuant to recommendations in the City's Five-Year Water Policy Action Plan. The program experienced increased participation due to the 1987-1991 California Drought. The subsequent 1994 Long Term Water Supply Program identified a goal of 1,500 AFY of additional water conservation, at target that was met and exceeded.

The City's current Water Conservation Program is a combination of the City's commitment to carrying out the California Urban Water Conservation Council's (CUWCC) Best Management Practices and the City's dedication to water conservation as an element of the 2011 Long-Term Water Supply Plan.

The City joined the CUWCC in January 1992 by signing the Memorandum of Understanding Regarding Urban Water Conservation. Since that time, the City has been actively carrying out the Best Management Practices as well as additional water conservation measures.

Earlier sections of this plan detail the analysis that went into determining the appropriate conservation measures for cost effectively managing the City's water demand and complying with urban water use targets. Appendix D summarizes the Water Conservation Technical Evaluation completed by Maddaus Water Management in October 2010. Appendix H includes the City's CUWCC reports documenting ongoing compliance with the MOU.

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**Appendix A:**

**Documentation of Public Noticing,**  
**Community Notifications, Interagency Coordination,**  
**and City Council Action**

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# City of Santa Barbara

City Clerk's Office

[www.SantaBarbaraCA.gov](http://www.SantaBarbaraCA.gov)

735 Anacapa Street  
P.O. Box 1990  
Santa Barbara, CA  
93102-1990  
Tel.: 805.564.5309  
Fax: 805.897.2623

## PUBLIC NOTICE City of Santa Barbara

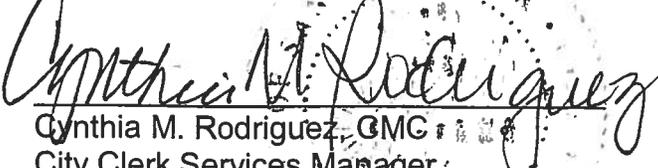
NOTICE IS HEREBY GIVEN that the City Council of the City of Santa Barbara will conduct a Public Hearing on Tuesday, June 14, 2011, during the afternoon session of the meeting which begins at 2:00 p.m. in the Council Chamber, City Hall, 735 Anacapa Street, Santa Barbara. The hearing is to consider a recommendation to adopt the 2010 update of the City's Urban Water Management Plan (UWMP) as required by State law, and to adopt the City's updated Long Term Water Supply Plan (LTWSP), which is the basis for water supply information in the UWMP. The meeting is open to the public. Questions can be directed to the City's Water Hotline at (805) 564-5460.

Drafts of the UWMP and LTWSP will be available as a news item on the City's homepage at [www.SantaBarbaraCa.gov](http://www.SantaBarbaraCa.gov) beginning Tuesday, May 24, 2011. Any comments are requested by 12:00 noon, Friday, June 3, 2011 so they can be considered in preparation of the final drafts to be included in the City Council packet for the hearing on June 14, 2011. Written comments should be addressed to the City Council via the City Clerk's Office, P.O. Box 1990, Santa Barbara, CA 93102-1990. You are also invited to attend the hearing and address your comments to the City Council.

On Thursday, June 9, 2011, an Agenda with all items to be heard on Tuesday, June 14, 2011, will be available at 735 Anacapa Street and at the Central Library. Agendas and Staff Reports are also accessible online at [www.SantaBarbaraCA.gov](http://www.SantaBarbaraCA.gov); under Quick Links, click on Current Council Agenda & Packet. Regular meetings of the Council are broadcast live and rebroadcast on Wednesdays and Thursdays at 7:00 p.m. and on Saturday at 9:00 a.m. on Channel 18. These meetings can also be viewed over the Internet at [www.santabarbaraca.gov](http://www.santabarbaraca.gov): Click on the Government tab, click City Council Meeting Videos (under Quick Links), and then click on the Video link for the meeting date.

In compliance with the Americans with Disabilities Act, if you need special assistance to gain access to, comment at, or participate in this meeting, please contact the City Administrator's Office at 564-5305 or inquire at the City Clerk's Office on the day of the meeting. If possible, notification at least 48 hours prior to the meeting will enable the City to make reasonable arrangements in most cases.

(SEAL)

  
Cynthia M. Rodriguez, GMC  
City Clerk Services Manager  
May 24, 2011

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**SANTA BARBARA NEWS PRESS  
Proof of Publication  
(2015.5C.C.P)**

**Superior Court of  
the State of California  
In and for The County of Santa Barbara**

**Envelope No. 42322**

**In the Matter of: PUBLIC NOTICE**

The undersigned, being the principal clerk of the printer of the Santa Barbara News Press, a newspaper of general circulation, printed and published daily in the City of Santa Barbara, County of Santa Barbara, California and which newspaper has been adjudged a newspaper of general circulation by the Superior Court in the County of Santa Barbara, State of California, Adjudication Number 47171; and that affiant is the principal clerk of said Santa Barbara News Press. That the printed notice hereto annexed was published in the SANTA BARBARA NEWS-PRESS, in the issues of the following named dates

MAY 24, 29, 31 / 2011

all in the year 2011 I hereby certify (or declare) under penalty of perjury that that foregoing is true and correct.

Executed on this 1<sup>st</sup> of JUNE 2011 at Santa Barbara, CA.



---

Signature

**PUBLIC NOTICE**  
**City of Santa Barbara**

NOTICE IS HEREBY GIVEN that the City Council of the City of Santa Barbara will conduct a Public Hearing on Tuesday, June 14, 2011, during the afternoon session of the meeting which begins at 2:00 p.m. in the Council Chamber, City Hall, 735 Anacapa Street, Santa Barbara. The hearing is to consider a recommendation to adopt the 2010 update of the City's Urban Water Management Plan (UWMP) as required by State law, and to adopt the City's updated Long Term Water Supply Plan (LTWSP), which is the basis for water supply information in the UWMP. The meeting is open to the public. Questions can be directed to the City's Water Hotline at (805) 564-5460.

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Cynthia M. Rodriguez, CMC  
City Clerk Services Manager

MAY 24, 29, 31 / 2011 -- 42322

# Santa Barbara Daily Sound

## Proof of Publication (2015.5C.C.P.)

Superior Court of  
The State of California  
In and for The County of Santa Barbara

In the Matter of: Public Notice- 6/14 Hearing for UWMP & LTWSP

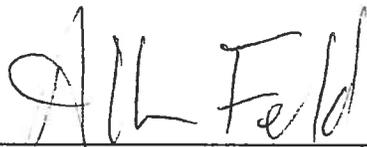
Case Numbers:

The undersigned, being the principal clerk of the printer of the Santa Barbara Daily Sound, a newspaper of general circulation, printed and published in the City of Santa Barbara, County of Santa Barbara, California and which newspaper has been adjudged a newspaper of general circulation by the Superior Court in the County of Santa Barbara, State of California, Adjudication Case No. 1243692; and that affiant is the principal clerk of said Santa Barbara Daily Sound. That the printed notice hereto annexed was published in the Santa Barbara Daily Sound, in the issue(s) following named date(s)

May 24 and 31, 2011

I hereby certify (or declare) under penalty of perjury that the forgoing is true and correct.

Executed on May 31, 2011



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Allen Feld

**PUBLIC NOTICE**  
**City of Santa Barbara**

NOTICE IS HEREBY GIVEN that the City Council of the City of Santa Barbara will conduct a Public Hearing on Tuesday, June 14, 2011, during the afternoon session of the meeting which begins at 2:00 p.m. in the Council Chamber, City Hall, 735 Anacapa Street, Santa Barbara. The hearing is to consider a recommendation to adopt the 2010 update of the City's Urban Water Management Plan (UWMP) as required by State law, and to adopt the City's updated Long Term Water Supply Plan (LTWSP), which is the basis for water supply information in the UWMP. The meeting is open to the public. Questions can be directed to the City's Water Hotline at (805) 564-5460.

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(SEAL)

\_\_\_\_\_  
Cynthia M. Rodriguez, CMC  
City Clerk Services Manager

STATE OF CALIFORNIA )  
 )  
COUNTY OF SANTA BARBARA ) ss.  
 )  
CITY OF SANTA BARBARA )

I, Cynthia M. Rodriguez, City Clerk Services Manager in and for the City of Santa Barbara, California, DO HEREBY CERTIFY that the minute order is a true and correct copy of the record of the City Council proceedings concerning the meeting on June 14, 2011, Item No. 15, Adoption Of Long-Term Water Supply Plan And Urban Water Management Plan.

IN WITNESS WHEREOF, I have hereunto set my hand and caused the official seal of said City to be affixed this 13<sup>th</sup> day of July, 2011.

(SEAL)  
  
Cynthia M. Rodriguez  
City Clerk Services Manager

**CITY OF SANTA BARBARA  
CITY COUNCIL**

**MINUTE ORDER**

**DATE** June 14, 2011

**ROLL CALL** Mayor Helene Schneider, Councilmembers Dale Francisco, Frank Hotchkiss, Grant House, Randy Rowse, Michael Self, Bendy White

**ITEM** No. 15 (Administrative Item)

Subject: Adoption Of Long-Term Water Supply Plan And Urban Water Management Plan (540.08)

**RECOMMENDATION** That Council:

- A. Hold a Public Hearing regarding adoption of the City's updated Long-Term Water Supply Plan (LTWSP) and the 2010 update of the City's Urban Water Management Plan (UWMP);
- B. Adopt the City's updated LTWSP as the policy basis for management of the City's water supply for the period through approximately 2030; and
- C. Adopt and authorize the Public Works Director to transmit the City's updated UWMP to the California Department of Water Resources, such adoption to include modifications as may be approved by the Public Works Director to ensure compliance with State UWMP requirements, provided that any such modifications are not inconsistent with the updated LTWSP.

**ACTION** Councilmembers House/White to approve the recommendations.

Unanimous voice vote

## **Ferguson, Bill**

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**From:** Ferguson, Bill  
**Sent:** Friday, May 27, 2011 11:55 AM  
**To:** 'allen@co.santa-barbara.ca.us'  
**Subject:** Urban Water Management Plan - City of Santa Barbara

### **Notice of Public Hearing (Pursuant to California Water Code, Section 10642)**

The City has posted a draft of its 2010 Urban Water Management Plan (UWMP) for public review and comment. This is a State mandated document that demonstrates compliance with water management requirements, including recently adopted mandatory targets for Statewide water conservation.

Also posted is a draft of the City's Long Term Water Supply Plan, which will update the 1994 version. This is a City policy document that was the basis for the water supply analysis in the UWMP.

The documents can be accessed at: [www.santabarbaraca.gov/water](http://www.santabarbaraca.gov/water)

A public hearing is scheduled for June 14, 2011 at 2:00 p.m. in the City Council Chamber, 735 Anacapa Street. Written comments are requested by June 3, 2011 for consideration before preparation of the final draft and should be addressed to the City Council via the City Clerk's Office, P.O. Box 1990, Santa Barbara, CA 93102-1990. You are also invited to attend the hearing and address your comments to the City Council.

Questions can be directed to 564-5460.

**Bill Ferguson, Water Resources Supervisor**  
City of Santa Barbara Public Works Department  
P.O. Box 1990, Santa Barbara, CA 93102  
Street Address: 630 Garden Street, Santa Barbara, CA 93101  
Phone: (805) 564-5571  
FAX: (805) 897-2613  
E-mail: [BFerguson@SantaBarbaraCA.gov](mailto:BFerguson@SantaBarbaraCA.gov)

## **Ferguson, Bill**

---

**From:** Lancy, Theresa  
**Sent:** Thursday, May 26, 2011 2:02 PM  
**To:** Lancy, Theresa  
**Cc:** Ferguson, Bill  
**Subject:** Draft Urban Water Management Plan Posted

Greetings,

The City has posted a draft of its 2010 Urban Water Management Plan (UWMP) for public review and comment. This is a State mandated document that demonstrates compliance with water management requirements, including recently adopted mandatory targets for Statewide water conservation.

Also posted is a draft of the City's Long Term Water Supply Plan, which will update the 1994 version. This is a City policy document that was the basis for the water supply analysis in the UWMP.

The documents can be accessed at: [www.santabarbaraca.gov/water](http://www.santabarbaraca.gov/water)

A public hearing is scheduled for June 14, 2011 at 2:00 p.m. in the City Council Chamber, 735 Anacapa Street. Written comments are requested by June 3, 2011 for consideration before preparation of the final draft and should be addressed to the City Council via the City Clerk's Office, P.O. Box 1990, Santa Barbara, CA 93102-1990. You are also invited to attend the hearing and address your comments to the City Council.

Please feel free to contact Bill Ferguson at [bferguson@santabarbaraca.gov](mailto:bferguson@santabarbaraca.gov) or 564-5571, if you have any questions.

**Bill Ferguson, Water Resources Supervisor**  
City of Santa Barbara Public Works Department  
P.O. Box 1990, Santa Barbara, CA 93102  
Street Address: 630 Garden Street, Santa Barbara, CA 93101  
Phone: (805) 564-5571  
FAX: (805) 897-2613  
E-mail: [BFerguson@SantaBarbaraCA.gov](mailto:BFerguson@SantaBarbaraCA.gov)

## Ferguson, Bill

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**From:** Ferguson, Bill  
**Sent:** Wednesday, May 25, 2011 7:42 PM  
**To:** 'jlb@ccwa.com'; 'JMcInnes@goletawater.com'; 'tom@montecitowater.com'; 'charles@cvwd.net'; 'cdahlstrom@syrwd.org'; 'bwales@syrwcd.com'; 'ESalazar@usbr.gov'; dwilliams@mp.usbr.gov; Mike Alvarado  
**Cc:** Bjork, Rebecca; Taylor, Catherine; Lancy, Theresa; Jordan, Alison; Shelton, Barbara; Landon Neustadt (lneustadt@lagunablanca.org); Barry Keller (kyrrab.cal@verizon.net); jasmith181@aol.com; Bill Thomas (BLT83@cox.net); Russell Ruiz (ruizsblaw@cox.net); Russell Ruiz  
**Subject:** Draft Urban Water Management Plan Posted

The City has posted a draft of its 2010 Urban Water Management Plan (UWMP) for public review and comment. This is a State mandated document that demonstrates compliance with water management requirements, including recently adopted mandatory targets for Statewide water conservation.

Also posted is a draft of the City's Long Term Water Supply Plan, which will update the 1994 version. This is a City policy document that was the basis for the water supply analysis in the UWMP.

The documents can be accessed at: [www.santabarbaraca.gov/water](http://www.santabarbaraca.gov/water)

A public hearing is scheduled for June 14, 2011 at 2:00 p.m. in the City Council Chamber, 735 Anacapa Street. Written comments are requested by June 3, 2011 for consideration before preparation of the final draft and should be addressed to the City Council via the City Clerk's Office, P.O. Box 1990, Santa Barbara, CA 93102-1990. You are also invited to attend the hearing and address your comments to the City Council.

Please feel free to contact me at 564-5571, if you have any questions.

**Bill Ferguson, Water Resources Supervisor**  
City of Santa Barbara Public Works Department  
P.O. Box 1990, Santa Barbara, CA 93102  
Street Address: 630 Garden Street, Santa Barbara, CA 93101  
Phone: (805) 564-5571  
FAX: (805) 897-2613  
E-mail: [BFerguson@SantaBarbaraCA.gov](mailto:BFerguson@SantaBarbaraCA.gov)

## Ferguson, Bill

---

**From:** Ferguson, Bill  
**Sent:** Wednesday, May 25, 2011 7:30 PM  
**To:** 'info@sbhispanicchamber.org'; 'info@GSBLRA.org'; 'citizensplanningsb@gmail.com'; 'sharon@mcasb.org'; 'brianp@vistapro.com'; 'President@sb-allied.org'; 'evangeline@aiasb.com'; 'ddavis@cecmail.org'; 'jnisbet@sbaor.com'; 'steve@sbchamber.org'; 'bcollyer@sbdo.org'; 'cao@co.santa-barbara.ca.us'; 'mnaftal@cosbpw.net'  
**Subject:** Draft Water Supply Plans Available - City of Santa Barbara

The City has posted a draft of its 2010 Urban Water Management Plan (UWMP) for public review and comment. This is a State mandated document that demonstrates compliance with water management requirements, including recently adopted mandatory targets for Statewide water conservation.

Also posted is a draft of the City's Long Term Water Supply Plan, which will update the 1994 version. This is a City policy document that was the basis for the water supply analysis in the UWMP.

The documents can be accessed at: [www.santabarbaraca.gov/water](http://www.santabarbaraca.gov/water)

A public hearing is scheduled for June 14, 2011 at 2:00 p.m. in the City Council Chamber, 735 Anacapa Street. Written comments are requested by June 3, 2011 for consideration before preparation of the final draft and should be addressed to the City Council via the City Clerk's Office, P.O. Box 1990, Santa Barbara, CA 93102-1990. You are also invited to attend the hearing and address your comments to the City Council.

Questions can be directed to 564-5460.

**Bill Ferguson, Water Resources Supervisor**  
City of Santa Barbara Public Works Department  
P.O. Box 1990, Santa Barbara, CA 93102  
Street Address: 630 Garden Street, Santa Barbara, CA 93101  
Phone: (805) 564-5571  
FAX: (805) 897-2613  
E-mail: [BFerguson@SantaBarbaraCA.gov](mailto:BFerguson@SantaBarbaraCA.gov)



**City of Santa Barbara**  
Public Works Department

[www.SantaBarbaraCA.gov](http://www.SantaBarbaraCA.gov)

Main Office  
630 Garden Street  
P.O. Box 1990  
Santa Barbara, CA  
93102-1990

Administration  
Tel: 805.564.5377  
Fax: 805.897.2613

Engineering  
Tel: 805.564.5363  
Fax: 805.564.5467

Facilities  
Tel: 805.564.5415  
Fax: 805.897.2577

Street Maintenance  
Tel: 805.564.5413  
Fax: 805.897.1991

Transportation  
Tel: 805.564.5385  
Fax: 805.564.5467

Water Resources  
Tel: 805.564.5387  
Fax: 805.897.2613

April 13, 2011

Michael Allen, Chief Deputy Clerk of the Board  
County of Santa Barbara  
105 East Anapamu Street, Room 407  
Santa Barbara, CA 93101

**SUBJECT:** Notification of Public Hearing Regarding Urban Water  
Management Plan Update

Dear Mr. Allen:

Pursuant to State law, we are hereby providing notice that the City of Santa Barbara is in the process of updating its Urban Water Management Plan. The City Council is scheduled to hold a Public Hearing at 2:00 p.m. on June 14, 2011 in the Council Chambers, City Hall, 735 Anacapa Street in Santa Barbara for the purpose of receiving public input on and considering adoption of the proposed update.

Questions regarding this matter can be directed to Bill Ferguson, Water Resources Supervisor, at (805) 564-5571, or by email at: [BFerguson@SantaBarbaraCA.gov](mailto:BFerguson@SantaBarbaraCA.gov).

Thank you.

Sincerely,

A handwritten signature in black ink that reads "Rebecca Bjork".

Rebecca Bjork  
Water Resources Manager

BF/dm

cc: Matt Naftaly, Santa Barbara County Water Agency Manager,  
123 East Anapamu Street, Santa Barbara, CA 93101

## **Ferguson, Bill**

---

**From:** Ferguson, Bill  
**Sent:** Wednesday, May 11, 2011 11:33 AM  
**To:** 'jlb@ccwa.com'  
**Cc:** Bjork, Rebecca  
**Subject:** UWMP Water Use Projections

### Notification of Water Use Projection Data for Urban Water Management Planning

The City of Santa Barbara has reviewed the water use projections provided by Central Coast Water Agency in its letter dated March 29, 2011. We are responding that we expect to use those projections as the basis for expected availability of State Water Table A amounts under the range of water shortage scenarios identified in the current Urban Water Management Plan Guidebook. Such available Table A amounts will be used by the City as appropriate, including for delivery as needed to meet current demands, carryover, sale to other agencies, and/or banking for improved future water supply reliability. In the "Water Supply and Water Shortage Contingency Planning" section of our Urban Water Management Plan update, we also will include a sensitivity analysis based on more conservative assumptions on our water supplies, as a way of illustrating a "worst likely" case performance of our water supply. Please advise if you have any questions.

Thank you for your assistance.

**Bill Ferguson, Water Resources Supervisor**  
City of Santa Barbara Public Works Department  
P.O. Box 1990, Santa Barbara, CA 93102  
Street Address: 630 Garden Street, Santa Barbara, CA 93101  
Phone: (805) 564-5571  
FAX: (805) 897-2613  
E-mail: [BFerguson@SantaBarbaraCA.gov](mailto:BFerguson@SantaBarbaraCA.gov)

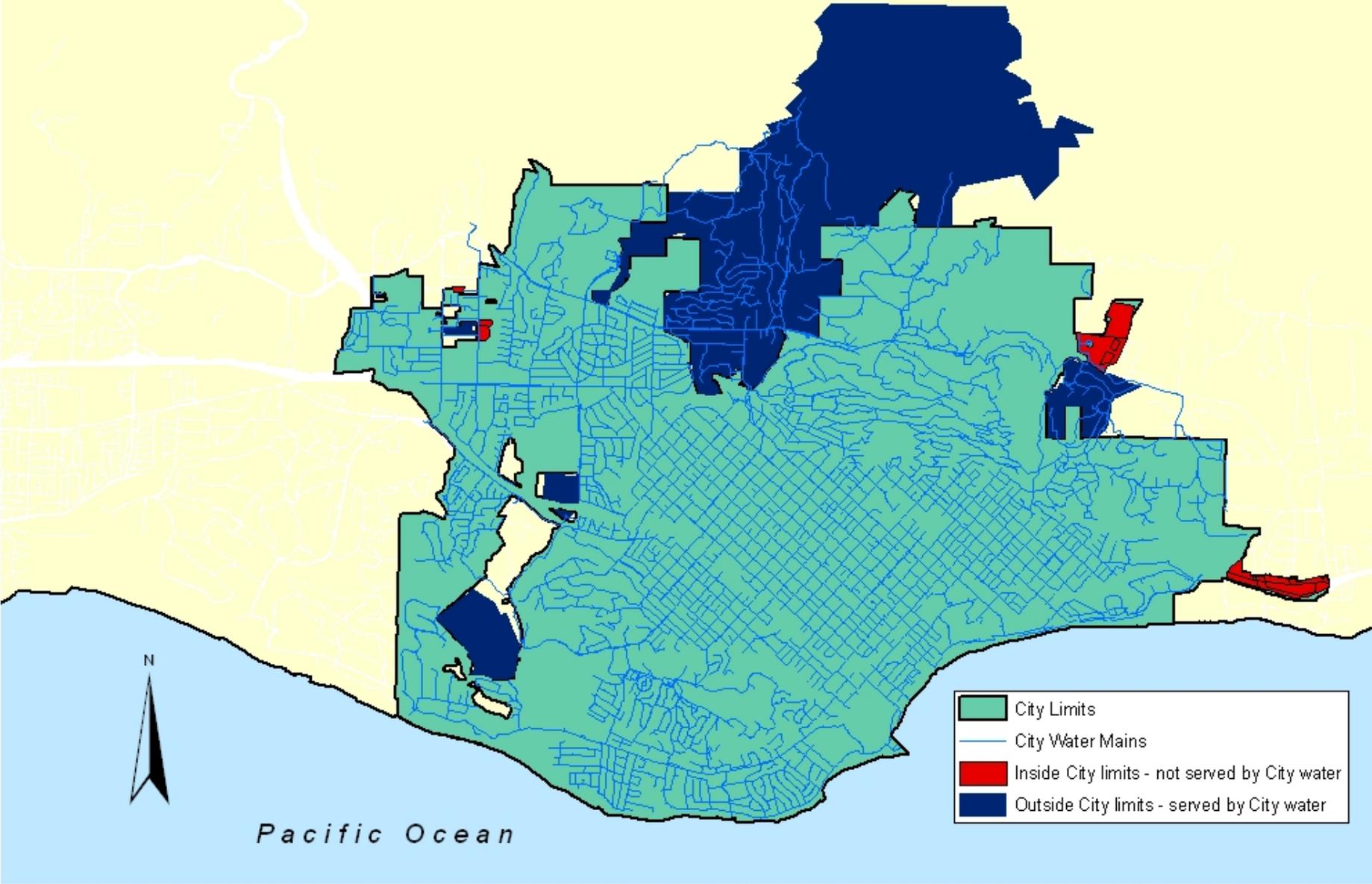
**Appendix B:**

**Water Service Area Map**

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# City of Santa Barbara Water Service Area

*As Defined by Census Tracts Served by City Distribution System*



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**Appendix C:**

**Documentation of Lower-Income  
Housing Data**

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### Existing and Projected Housing Units in City of Santa Barbara

	2010 Baseline	2015	2020	2025	2030	Total Projected Housing Units (2010-2030)
<b>Existing Housing (2010)</b>						
Total housing units in City <sup>1</sup> (includes SF & MF units)	37,720 du					
Housing types <sup>2</sup>						
single-family (53.5%)	20,193 du					
multiple-family (46.5%)	17,527 du					
Existing lower-income housing units in City <sup>3</sup> (6.8%)	2,580 du					
<b>Projected Housing</b>						
Net increase in housing units in City (incl SF & MF units) <sup>3</sup>		700	700	700	700	2800
Total housing units in City <sup>4</sup>		38,420	39,120	39,820	40,520	40,520
Net increase in lower-income housing units in City <sup>5</sup>		154	154	154	154	616
Total lower income housing units in City <sup>6</sup>		2,734	2,888	3,042	3,196	3196 (7.8%)

**Notes:**

**1. Total Existing Housing Units in City (2009),**

Sources: City of Santa Barbara General Plan Housing Element Table H-17 p. 132 (September 2010 Proposed Final); Dept of Finance

**2. Existing Housing Types in City (2009)**

Sources: City of Santa Barbara General Plan Housing Element Table H-17 p. 132 (September 2010 Proposed Final); Dept of Finance

**3. Existing Lower-Income Housing Units in City (2010) - Lower Income Housing Units are defined as affordable to 80% of median household income**

Includes single-family (SF) and multiple-family (MF) units w/ recorded affordability agreements (not vouchers & certificates that travel with resident)

Source: City Housing & Redevelopment Division, Steven Faulstich

**3. Projected Net Increase in Housing Units in City**

Additional housing unit projections are based on *Plan Santa Barbara* General Plan Certified Final EIR growth assumptions for the Plan Santa Barbara project which estimates build-out of a total of up to 2,800 net new dwelling units between 2010 and 2030.

Source: Certified Final Environmental Impact Report for *Plan Santa Barbara* General Plan Update (September 2010)

**4. Total Projected Housing Units in City = Existing 2010 Total Housing Units + Projected Net Increase in Housing units**

**5. Projected Net Increase in Lower Income Housing Units in City**

Source: City of Santa Barbara General Plan Housing Element Table H-47 Quantified Objectives 2007-2014, p. 195 (September 2010 Proposed Final)

New Construction Objectives 2010-2014: Extremely Low 50 du; Very Low 50 du; Low 110 du = 210 du x 3 = estimated 630 du to 2030, approximately 22% of total 2800 du estimated to build out. Assume 22% of total build-out for each five-year increment of growth.

**6. Total Projected Lower Income Housing Units in City = Existing 2010 Lower Housing Units + Projected Net Increase in Lower Income Housing Units**

Additional Note: Breakdown of Affordable *and* Assisted Housing Units and Shelter/Group Beds in City (June 2010):

2,580 units with recorded affordability agreements (includes senior rental, rental not senior only, resident-owned mobilehome spaces)

340 units owner-occupied and secondary units with recorded affordability agreements

1,375 section 8 certificates and vouchers in use

574 single-family owner-occupied rehabilitation

416 beds in group homes or shelters

5,285

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**Appendix D:**

**Executive Summary:  
Water Conservation Technical Evaluation**

**Maddaus Water Management**

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## EXECUTIVE SUMMARY

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### Introduction

This conservation technical analysis was conducted by Maddaus Water Management (MWM) for the City of Santa Barbara (City). The purpose of the analysis is to:

1. Evaluate current conservation measures and identify new conservation measures that will reduce future water demand.
2. Estimate the costs and water savings of these measures.
3. Combine the measures into increasingly more aggressive programs and evaluate the costs and water savings of these programs.

### Long-Term Conservation Program Analysis

A list of 92 potential conservation measures was developed from known water saving technologies and services. Twenty-three conservation measures, selected by the City and local stakeholders during an evaluation workshop, were further analyzed by the Least Cost Planning Decision Support System Model (DSS Model). The DSS Model is a planning tool that assists water planners with evaluating alternative water conservation programs. The model itself is an end use model that calculates water savings, costs and benefits from individual measures, and programs of a number of measures. Projections of future water demand with and without water conservation programs are made for the City water service area. Calculations are made for every year in the 30-year analysis period. In addition, twenty one measures, both current and potential future measures, were put into a “Tool Kit” for further qualitative evaluation.

Based on analysis by the model, conservation measures were grouped into alternative programs of increasingly higher water savings and implementation costs (Table ES-1). Conservation Program A consists of 10 measures that are part of the existing City water conservation program. Conservation Program B includes all of Program A, plus those additional measures that have an individual benefit-cost ratio of 0.9 or greater, for a total of 17 measures. Conservation Program C includes all measures evaluated, except for Measure 5 which is replaced with the enhanced Measure 6. The measures included in Conservation Programs A, B, and C are identified in Table ES-1 in the columns at the right. Figure ES-1 shows the projected demand without the effects of the plumbing code, with the plumbing code effects, and with the plumbing code and three conservation program alternates. Water savings were evaluated and benefit-cost ratios computed for 20-year period of 2011 to 2030, coinciding with the City’s water supply planning period. Savings were then calculated to the year 2030 for each of these programs (see Table ES-2).

Table ES-3 shows the relative demand reductions in the year 2030, conservation program costs for the utility, present value economic information, and the utility cost of water saved for each of the alternate programs. Demand reduction by 2030 is measured from the 14,825 AFY projected 2030 demand without the effects of the plumbing code. Additional resources and customer contacts as embodied in the conservation programs identified in this memorandum, are required to reach higher levels of potential water savings. Utility costs include the cost to the City to run the program, including staff time, rebates, any contracted services, expense, etc. While utility cost is the primary consideration, this memorandum also considers customer costs and community costs to some extent, as described in the body of the memorandum. The plumbing code is included as passive baseline savings in addition to the long-term conservation program in Programs A-C. Most of the future program water savings consist of outdoor landscape improvements.

A Benefit-Cost ratio, which is the ratio of the present value of benefits to the present value of costs, is the most accurate indicator of cost-effectiveness. When the ratio of the Present Value of the benefits to the Present Value of the costs is greater than 1.0 for a particular program of measures, that program can be said to be cost-effective. Benefits for the utility can also be expressed as the value to the utility of the saved water. For the City, the value of the saved water is the cost savings from not producing the water that is saved. This could range from not treating pumped groundwater to not buying water from the State Water Project. An

assessment was made by the City and the value of the saved water was determined to be \$600 per acre-foot. This value is hereafter referred to as the City's "Avoided Costs".

Program A reflects estimated water savings derived from the plumbing code and continuing the current program. The additional measures that create programs B and C produce increasing incremental water savings and costs. Figure ES-2 illustrates there are apparent diminishing returns when measures are added beyond Program B. Demand reductions for year 2030 range from 920 to 1,919 AF/Yr. As the plumbing code water savings do not cost the City any money, the graph starts at the plumbing code water savings in 2030.

**Table ES-1  
Conservation Measures Selected for Programs**

No.	Measure Name (ND = Requirements for New Development)	Program		
		A	B	C
1	Promote Water Efficiency in Green Buildings		✓	✓
2	ND Require High Efficiency Toilets		✓	✓
3	ND Require High Efficiency Faucets and Showerheads		✓	✓
4	Fixture Replacement SB 407		✓	✓
5	Financial Incentives for Irrigation and Landscape Upgrades (Current)	✓	✓	
6	Financial Incentives for Irrigation and Landscape Upgrades			✓
7	Washer Rebates	✓	✓	✓
8	Washer Rebates for High Efficiency Machines			✓
9	High Efficiency Toilet (HET) Rebates	✓	✓	✓
10	Single Family Water Check Up	✓	✓	✓
11	Multifamily Water Check Up	✓	✓	✓
12	Existing Commercial Washer Rebate	✓	✓	✓
13	Cisterns/Rain Catchments			✓
14	Gray water Retrofit SF			✓
15	Current High Efficiency Urinal Rebate (<0.25 gallon)	✓	✓	✓
16	ND Require 0.5 gal/flush or less urinals in new buildings		✓	✓
17	School Building Retrofit		✓	✓
18	Irrigation (Landscape) Water Budgets	✓	✓	✓
19	Irrigation Water Surveys	✓	✓	✓
20	Mulch Program			✓
21	CII Water Check Up Level 1	✓	✓	✓
22	CII Water Check Up Level 2		✓	✓
23	Customized CII Incentive Program			✓
	Total Measures in each Program	10	17	22

Figure ES-1

Long Term Demands with Conservation Programs

(Demand is measured by total water system production, including potable and recycled water)

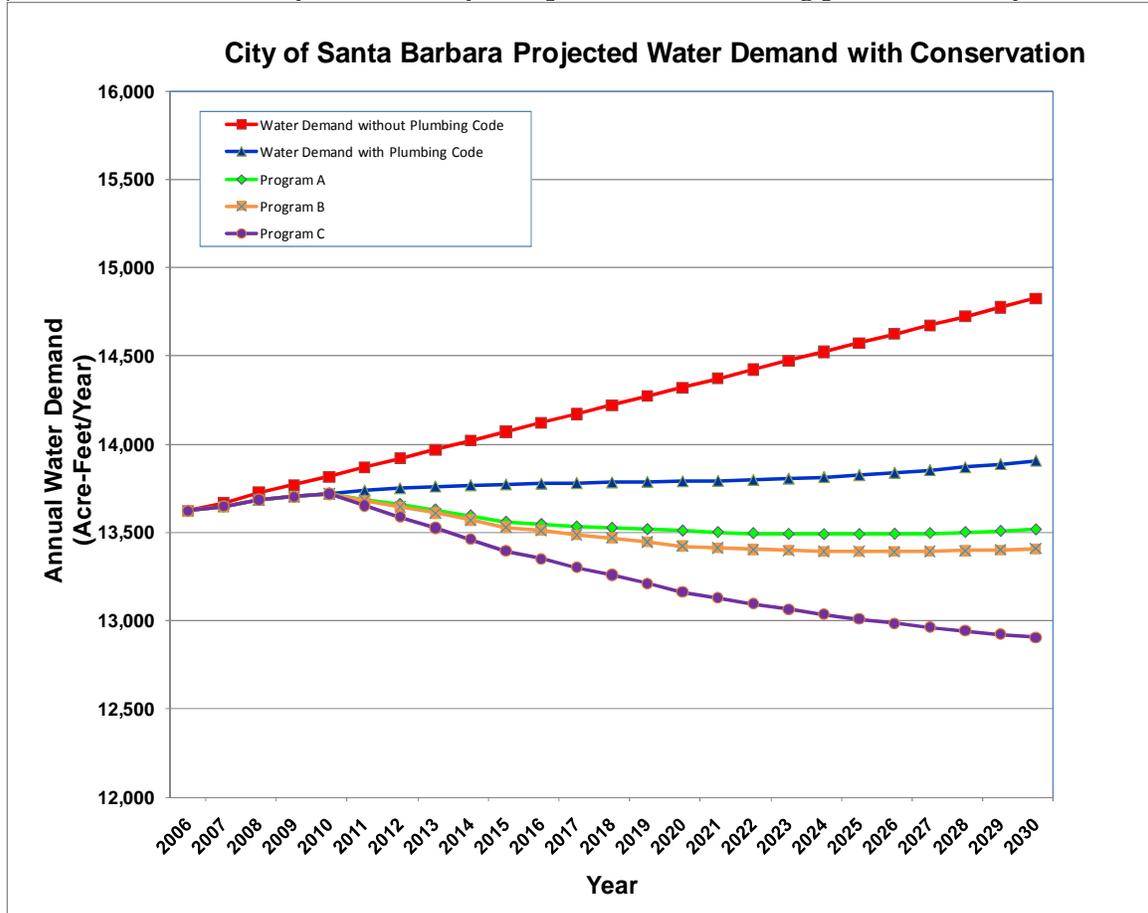


Table ES-2

Conservation Program Description and Future Water Savings

Conservation Program	Description	2030 Demand Reduction (AF/Yr)
-	No Conservation Programs, Plumbing Code Only	919
A	Continue Current Conservation Program (10 measures) and Plumbing Code	1,308
B	Add 7 Cost-Effective Measures to Current Program A and Plumbing Code	1,417
C	Add 5 More Measures to Program B and Plumbing Code	1,919

**Table ES-3  
Economic Summary of Long-Term Conservation Programs  
(Excluding Tool Kit Measures)**

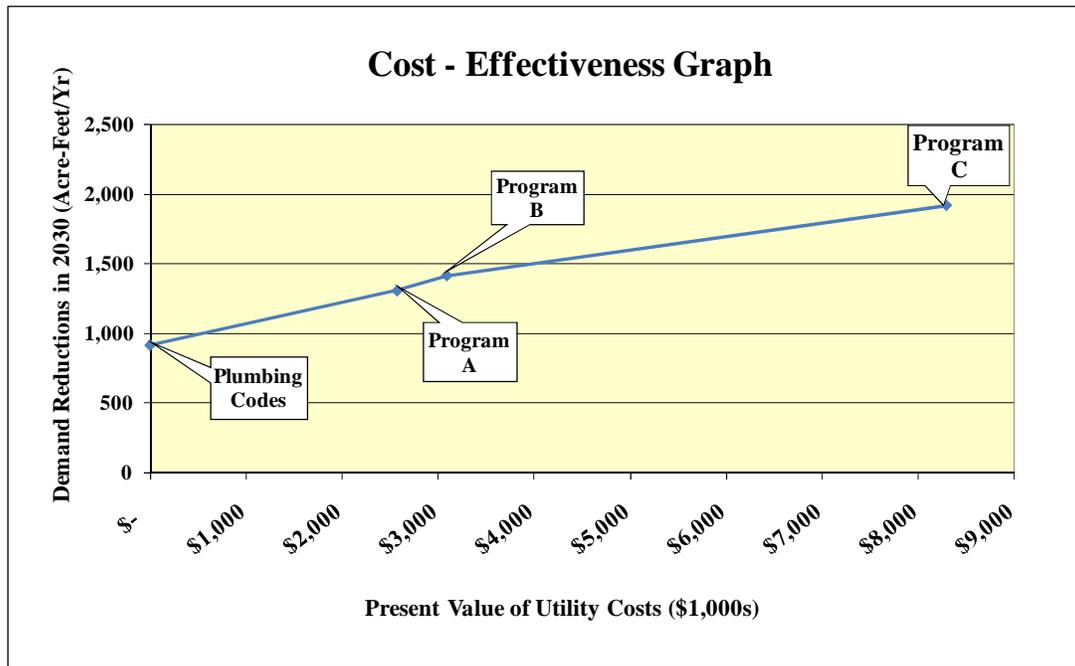
Conservation Program	Demand Reduction by 2030 (AFY)	Total 20-Year Conservation Program Water Savings (AF)	Average Annual Program Cost to Utility (\$)	Present Value of Utility Benefits (\$)	Present Value of Utility Costs (\$)	Utility Benefit - Cost Ratio	Utility Cost of Water Saved (\$/AF)
Plumbing Code Only	919	11,085	NA	NA	NA	NA	NA
Program A + Plumbing Code	1,308	16,419	\$194,000	\$2,455,000	\$2,570,000	0.96	\$482
Program B + Plumbing Code	1,417	17,801	\$233,200	\$3,131,000	\$3,089,000	1.01	\$460
Program C + Plumbing Code	1,919	23,193	\$629,400	\$5,867,000	\$8,287,000	0.71	\$684

**Notes:**

1. The DSS model is a 30-year model. It was run for 2006 to 2036 to include the base year of 2006 and the 20-year conservation program period of 2011 to 2030.
2. Demand Reduction by 2030 is measured from the 14,825 AFY projected 2030 demand without the effects of the Plumbing Code.
3. Average Annual Program Cost excludes any potential costs for the 21 measures in the Tool Kit
4. Utility Cost of Water Saved somewhat undervalues the cost of savings because program costs are discounted to present value and the water benefit is not. Utility Benefit-Cost ratio is the most accurate measure of cost effectiveness, because it accounts for the time value of money.

**Figure ES- 2**

**Present Value of Utility Costs versus Cumulative (Total) Water Saved**



**Appendix E:**

**City of Santa Barbara**

**Long-Term Water Supply**

**Performance Charts**

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# Water Supply Performance: Scenario A - Current Conditions

Projected System Demand (AFY): **14,000**

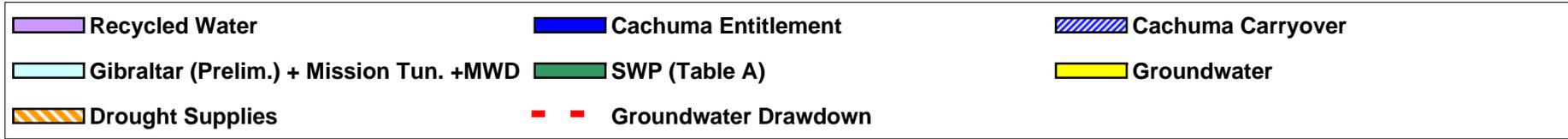
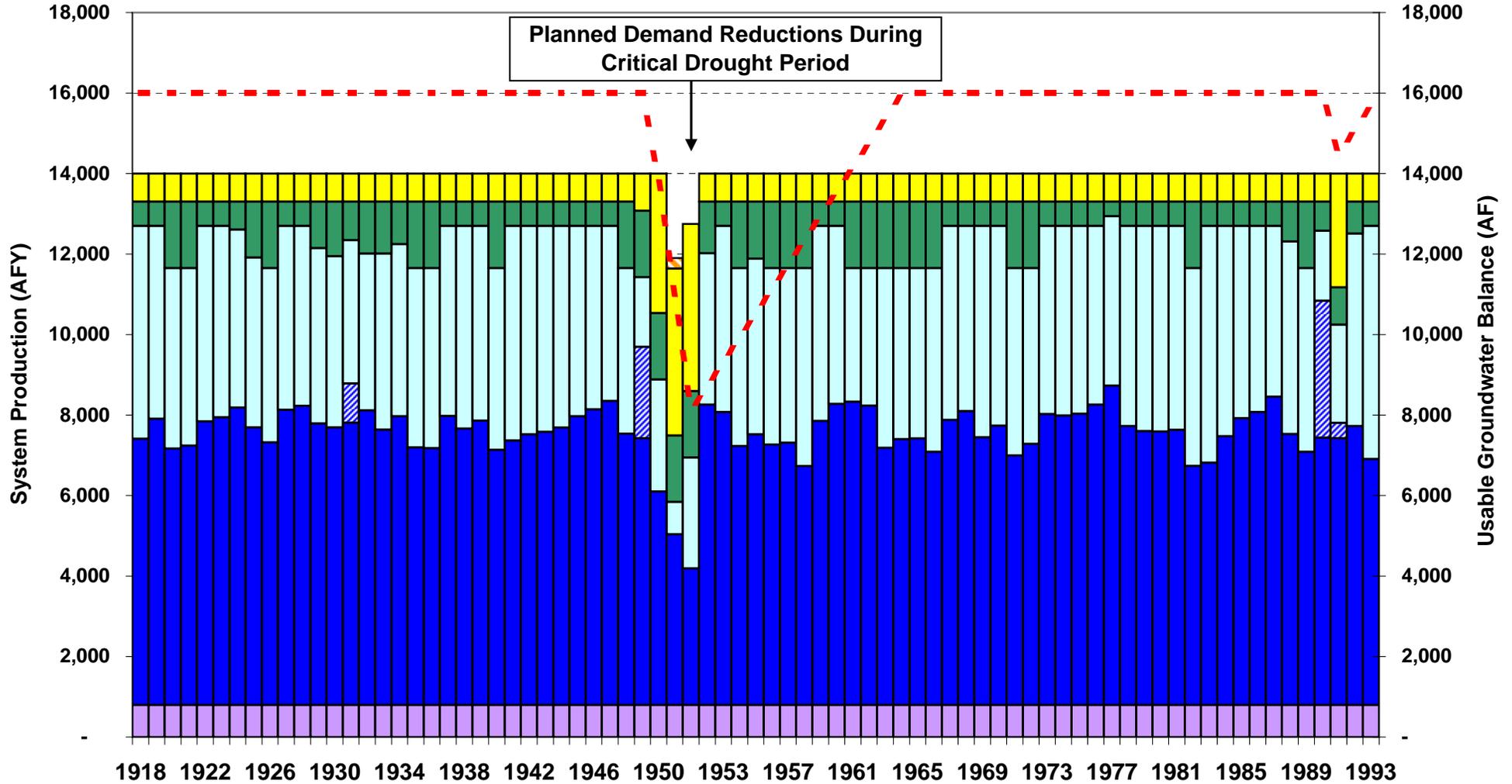
Water Supply Target (including Safety Margin): **14,000**

Cachuma Yield Assumption: **Current Entitlement**

Planned Demand Reductions: Stage 1    Stage 2    Stage 3

Total Critical Period Drought Supplies Required (AF): **262**

**10%    15%    15%**



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# Water Supply Performance: Scenario B - Near Term

Projected System Demand (AFY): **14,000**

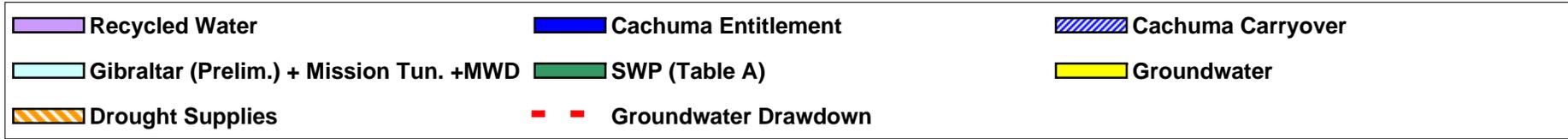
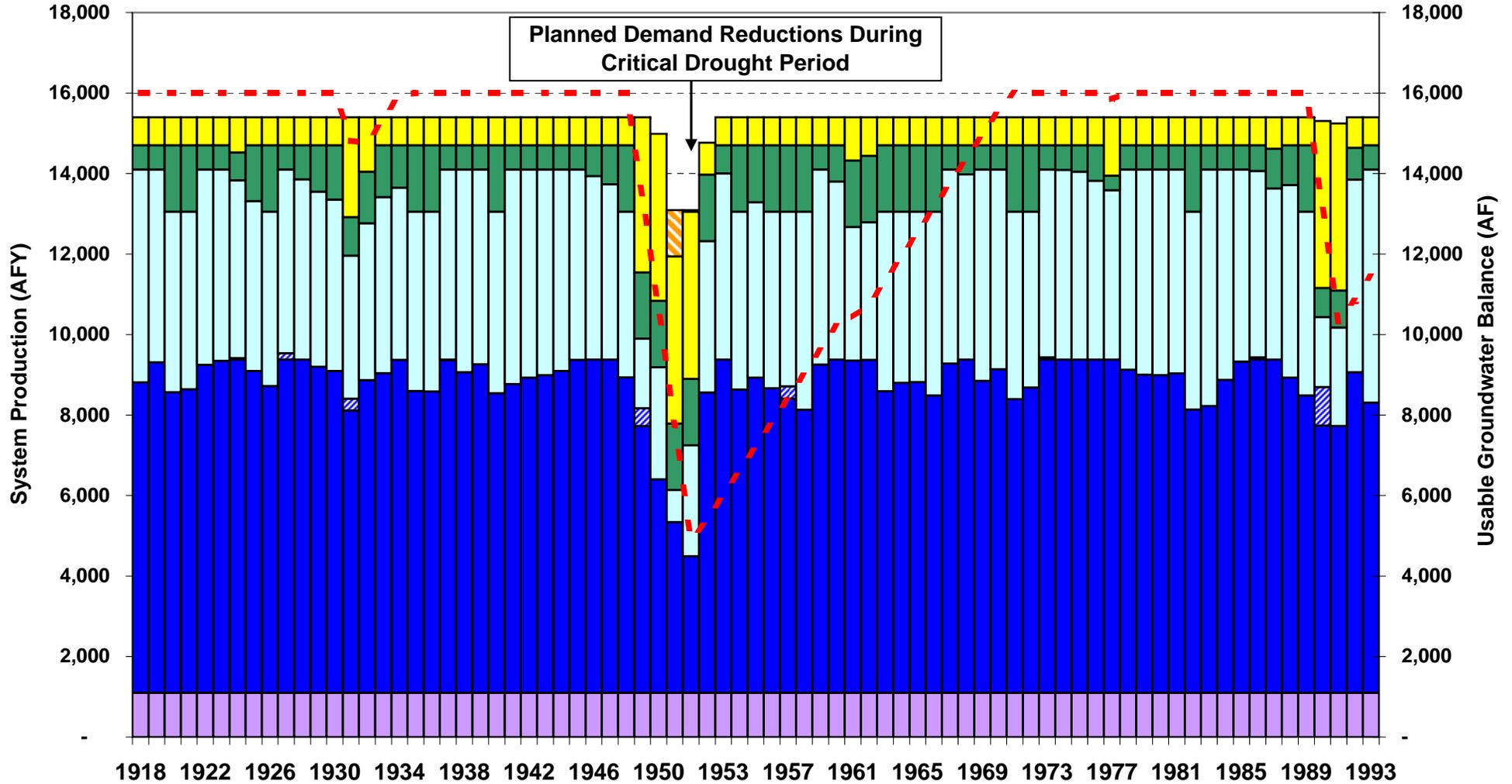
Water Supply Target (including Safety Margin): **15,400**

Cachuma Yield Assumption: **Current Entitlement**

Planned Demand Reductions: Stage 1    Stage 2    Stage 3

Total Critical Period Drought Supplies Required (AF): **1,195**

**10%    15%    15%**



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# Water Supply Performance: Scenario C - 2030 Conditions

Projected System Demand (AFY): **14,000**

Water Supply Target (including Safety Margin): **15,400**

Cachuma Yield Assumption: **Projected Entitlement**

Planned Demand Reductions: Stage 1

Stage 2

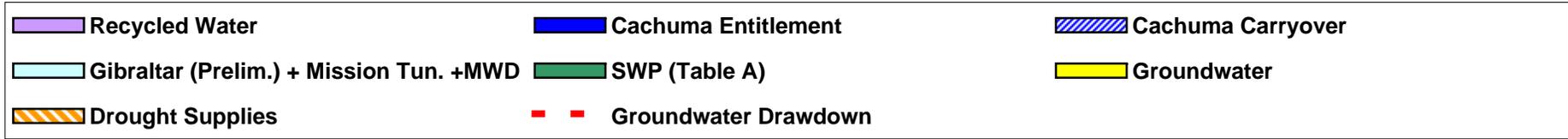
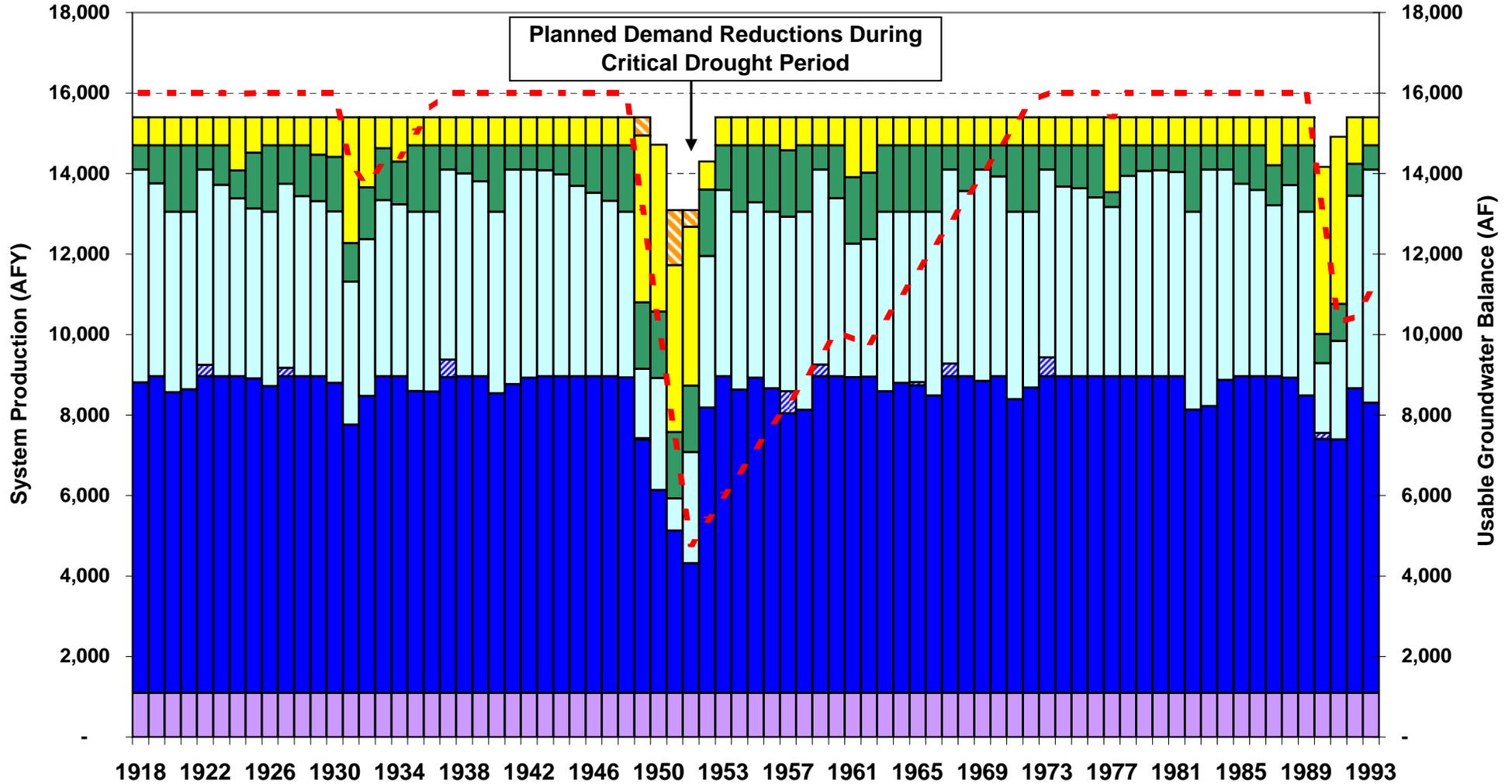
Stage 3

Total Critical Period Drought Supplies Required (AF): **2,228**

**10%**

**15%**

**15%**



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**Appendix F:**

**Excerpts from Santa Barbara Municipal Code,  
Chapter 14.20, Regarding Water Use Regulations  
During Drought Conditions**

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**Excerpts from Santa Barbara Municipal Code, Chapter 14.20,  
Regarding Water Use Regulations During Drought Conditions**

**14.20.215 Water Use Regulations During Drought Conditions.**

A. STAGE TWO DROUGHT CONDITION. Upon adoption by the City Council of a resolution declaring a Stage Two Drought Condition and for as long as that condition exists, the following water use regulations, and such other regulations as may be adopted by resolution of the City Council, shall apply to all use of water, other than reclaimed wastewater, that is provided by the City water supply system.

1. The use of running water from a hose, pipe, or faucet for the purpose of cleaning buildings and paved, tile, wood, plastic or other surfaces shall be prohibited, except in the event the Director determines that such use is the only feasible means of correcting a potential threat to health and safety.

2. All restaurants that provide table service shall post, in a conspicuous place, a Notice of Drought Condition as approved by the Director and shall refrain from serving water except upon specific request by a customer.

3. The operation of and introduction of water into ornamental fountains and bodies of water shall be prohibited.

4. Operators of hotels, motels, and other commercial establishments offering lodgings shall post in each room a Notice of Drought Condition as approved by the Director.

5. Any use of water that causes runoff to occur beyond the immediate vicinity of use shall be prohibited.

6. The use of potable water for cleaning, irrigation and construction purposes, including but not limited to dust control, settling of backfill, flushing of plumbing lines, and washing of equipment, buildings and vehicles, shall be prohibited in all cases where the Director has determined that use of reclaimed wastewater is a feasible alternative.

7. Irrigation at any time from 8:00 a.m. to 6:00 p.m. of any yard, orchard, park, recreational area, or other area containing vegetation shall be prohibited.

8. Boats and vehicles shall be washed only at commercial car washing facilities equipped with water recycling equipment or by use of a bucket and hose equipped with a self-closing valve that requires operator pressure to activate the flow of water.

B. STAGE THREE DROUGHT CONDITION. Upon adoption by the City Council of a resolution declaring a Stage Three Drought Condition and for as long as that condition exists, the following water use regulations, and such other regulations as may be adopted by resolution of the City Council, shall apply to all use of water, other than reclaimed wastewater, that is provided by the City water supply system.

1. Each of the Stage Two water use regulations set forth in Subsections A.1 through A.6 of this Section shall be applicable.

2. The introduction of water into swimming pools and spas shall be prohibited.

3. The use of water through a meter that is restricted to irrigation uses shall be prohibited, and the City shall have the right to shut off water service to any such meter without notice to the account holder or any other person.

4. Irrigation of any yard, orchard, park, recreational area, or other area containing vegetation shall be prohibited, except by means of a hand-held bucket.

5. Boats and vehicles shall be washed only by use of a hand-held bucket or at commercial car washing facilities equipped with water recycling equipment.

C. EXEMPTIONS. Exemptions to the water use regulations set forth in this Section may be granted by the Director for specific uses of water, on the basis of hardship and in accordance with such guidelines for exemptions as the City Council may adopt. A denial of a request for an exemption may be appealed to a review committee consisting of the Director, the Parks Director or his designated representative, one member of the Board of Water Commissioners appointed by the Board, and such other persons, if any, as the City Council may appoint. The decision of the review committee shall be final.

D. Upon the declaration of and during a Stage Three Drought Condition, the failure of a mobilehome park owner to introduce water into a swimming pool or spa located in a mobilehome park, in accordance with the requirement of Paragraph B.7 of this Section, shall not be considered an increase in "rent" for purposes of Municipal Code Section 26.08.030.N. (Ord. 4558, 1989.)

**14.20.225 Violations.**

A. Any failure to comply with a provision of this Chapter shall constitute a violation, regardless of whether the failure to comply is caused by an account holder, a consumer or any other person or entity.

B. Where the failure to comply is continuing and intentional, each successive hour of such failure to comply shall be a separate and distinct violation. (Ord. 4558, 1989.)

#### **14.20.226 Penalties and Charges.**

- A. The following penalties shall apply to any violation of any provision of this Chapter:
1. For the first violation within the preceding twelve (12) calendar months, the Director shall issue a written notice of the fact of such violation.
  2. For a second violation within the preceding twelve (12) calendar months, the Director shall impose a surcharge against the account holder for the property where the violation occurred or is occurring, in an amount not to exceed two-hundred and fifty dollars (\$250.00).
  3. For a third violation within the preceding twelve (12) calendar months, the Director:
    - a. Shall impose a surcharge against the account holder for the property where the violation occurred or is occurring, in an amount not to exceed two-hundred and fifty dollars (\$250.00); and
    - b. May install a flow restricter on the service where the violation occurred or is occurring, for a period to be determined by the Director.
  4. For a fourth and any subsequent violation within the preceding twelve (12) calendar months, the Director:
    - a. Shall impose a surcharge against the account holder for the property where the violation occurred or is occurring, in an amount not to exceed two-hundred and fifty dollars (\$250.00); and
    - b. May install a flow restricter on or shut off water service to the property where the violation occurred or is occurring, for a period to be determined by the Director.
- B. If a flow restricter is installed or water service shut off pursuant to Subsection A of this Section, prior to restoration of normal water service the account holder whose service is affected shall be required to reimburse the City for whatever cost it has incurred and will incur in installing and removing a flow restricter and in shutting off and turning on water service.
- C. Any surcharge imposed pursuant to this Section shall be added to the account of the account holder for the property where the violation occurred or is occurring and shall be due and payable on the same terms and subject to the same conditions as any other charge for regular water service. The maximum amount of surcharges which an account holder may be required to pay during any twelve-month period shall be one thousand dollars (\$1,000.00).
- D. Nothing in this Chapter shall limit or be construed to limit the right of an account holder to seek reimbursement of a surcharge from a tenant or other consumer. (Ord. 4558, 1989.)

#### **14.20.227 Notice of Violation - Hearing.**

- A. For each violation of this Chapter, the Director shall give notice as follows:
1. By sending written notice through the U.S. mail to the account holder for the property where the violation occurred or is occurring, at the current billing address shown in the City's water billing records; and
  2. By personally giving written notice thereof to the person who committed the violation or by leaving written notice with some person of suitable age and discretion at the property where the violation occurred or is occurring; or
  3. If neither the person who committed the violation nor a person of suitable age and discretion can be found, then by affixing written notice in a conspicuous place on the property where the violation occurred or is occurring.
- B. Any written notice given under this Section shall contain a statement of:
1. The time, place and nature of the violation;
  2. The person(s) committing the violation, if known;
  3. The provision(s) of this Chapter violated;
  4. The possible penalties for each violation;
  5. The account holder's right to request a hearing on the violation and the time within which such a request must be made; and
  6. The account holder's loss of the right to a hearing in the event the account holder fails to request a hearing within the time required.
- C. Any account holder provided a notice of violation in accordance with the provisions of this Chapter shall have the right to request a hearing. The request must be made in writing and must be received by the Director within ten (10) calendar days of the date of the notice of violation. The Director shall conduct the hearing, at which both written and oral evidence may be presented, and shall decide whether a violation occurred and the appropriate penalty. In determining the appropriate penalty, the Director shall consider whether the account holder knew of the violation at the time it occurred and whether he or she took reasonable action to correct the violation upon notification of it. In addition, the Director shall exercise his discretion in accordance with such guidelines as the City Council may adopt by resolution.
1. For a first or second violation within a twelve (12) month period, the decision of the Director shall be final.
  2. For a third or subsequent violation within a twelve (12) month period, the account holder shall have the right to appeal the decision of the Director by requesting a hearing before the Board of Water Commissioners ("Board"). The request for hearing before the Board shall be in writing and shall be delivered to the Director not later than seven (7) calendar days after the date of the decision of the Director. At the hearing, the Board may receive and hear both written and oral evidence and shall have the authority to affirm, reverse, or modify the decision of the

Director. The decision of the Board shall be final.

D. If an account holder fails to request a hearing before the Director or the Board within the period(s) provided in this Section, the action of the Department shall be deemed final.

E. There shall be no installation of a flow restricter or shut off of water service until a notice of violation has become final or there is a final decision of the Director or the Board ordering installation of a flow restricter or shut-off of water service. (Ord. 4558, 1989.)

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**Appendix G:**

**Water and Wastewater Service Rates**

**Fiscal Year 2011**

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City of Santa Barbara - Public Works Department  
**Rates for City Water and Sewer Service**

Resolution No. 10-044 (for Fiscal Year 2011)

1 hcf = 100 cubic feet = 748 gallons

Customer Class	Water Service Rates <sup>1</sup>	Sewer Service Rates
Single Family Residential	First 4 hcf @ \$2.93 Next 16 hcf @ \$4.90 All other @ \$5.16	\$12.51 per month; plus \$2.17 per hcf, up to 10 hcf per month
Multi-Family Residential, 1-4 dwelling units	First 4 hcf per dwelling unit @ \$2.93 Next 8 hcf per dwelling unit @ \$4.90 All other @ \$5.16	\$12.51 per month per dwelling unit; plus \$2.17 per hcf, up to 8 hcf per dwelling, per month
Multi-Family Residential, 5+ dwelling units	First 4 hcf per dwelling unit @ \$2.93 Next 8 hcf per dwelling unit @ \$4.90 All other @ \$5.16	\$12.51 per month per dwelling unit; plus \$2.17 per hcf, up to 7 hcf per dwelling, per month
Commercial	100% of base allotment <sup>2</sup> @ \$4.90 per hcf; All other @ \$5.16	\$2.46 per hcf; subject to minimum charge by meter size (see table below)
Industrial & High Strength Commercial	100% of base allotment <sup>2</sup> @ \$4.90 per hcf; All other @ \$5.16 per hcf	\$2.98 per hcf; subject to minimum charge by meter size (see table below)
Irrigation - Residential	Billed as if used through associated residential meter, OR annual allotment <sup>3</sup> of 654 hcf/acre @ \$4.90; all other @ \$5.16	Not applicable
Irrigation - Recreation/Parks/Schools	Annual allotment <sup>3</sup> of 1,404 hcf/acre @ \$2.31 Next 240 hcf/acre/year @ \$4.90 All other @ \$5.16	Not applicable
Irrigation - Commercial	100% of base allotment <sup>2</sup> @ \$4.90 per hcf; All other @ \$5.16/hcf	Not applicable
Irrigation – Agriculture	Annual allotment <sup>3</sup> of 1080 hcf/acre @ \$1.45 Next 240 hcf/acre/year @ \$4.90 All other at \$5.16/hcf	Not applicable
Recycled Water	All usage @ \$1.85/hcf	Charges based on type of use. Not applicable for irrigation.
Outside City Limits	130% of corresponding in-City rates	Same as in-City rates, except that residential accounts not receiving City water are charged at maximum rate.

**Monthly Water Meter Service Charges By Meter Size<sup>1</sup>**

Meter Size	5/8"	3/4" *	1"	1½"	2"	3"	4"	6"	8"	10"
Monthly Service Charge:	\$12.31	\$18.50	\$30.80	\$61.58	\$98.56	\$197.10	\$307.97	\$615.94	\$984.68	\$1,416.66

**Minimum Monthly Sewer Charges by Meter Size for Non-Residential Customers**

Meter Size	5/8"	3/4" *	1"	1½"	2"	3"	4"	6"	8"	10"
Commercial	\$23.51	\$35.27	\$41.03	\$70.42	\$117.41	\$234.72	\$292.96	\$586.79	\$1,026.91	\$1,576.28
Indus/HS Com.	\$29.31	\$43.96	\$51.37	\$88.22	\$146.71	\$293.35	\$366.81	\$733.48	\$1,283.55	\$2,017.13

\* This meter size no longer available for new installations.

**Typical City Water and Sewer Fees for Connection of a Single-Family Residence**

Water: \$2,102 (1" service connection, with 5/8" meter) + \$5,691 (buy-in fee, per residence) = \$7,793

Sewer: \$638 (4" sewer tap) + \$313 (trench inspection) + \$4,118 (buy-in fee, single-family residence)<sup>4</sup> = \$5,069

**For more information, contact the City's Water Hotline at (805) 564-5460**

<sup>1</sup> Utility users tax of 6% added to metered water charges and monthly water meter service charges.

<sup>2</sup> Base allotment = average monthly consumption during most recent January - June period.

<sup>3</sup> Annualized allotments run July to June; new allotments available for the July water bill; unused allotments do not carry forward, except for agricultural irrigation customers.

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**Appendix H:**

**California Urban Water Conservation Council**

**Best Management Practices Reports**

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## CUWCC BMP RETAIL COVERAGE REPORT 2009-2010

### Foundation Best Management Practices for Urban Water Efficiency

Agency: **City of Santa Barbara** District Name: **City of Santa Barbara, PWD** CUWCC Unit #: **88**  
 Retail  
 Primary Contact **Alison Jordan** Telephone **805 564-5574** Email: **ajordan@SantaBarbaraCA.gov**  
 Compliance Option Chosen By Reporting Agency: **Traditional**

#### Foundational BMPs

##### BMP 1.1 Operational Practices

	2009	2010	
1. Conservation Coordinator provided with necessary resources to implement BMPs?	Name: Alison Jordan Title: Water Conservation Coordinator Email: [Redacted]	Name: Alison Jordan Title: Water Conservation Coordinator Email: ajordan@SantaB: [Redacted]	Conservation Coordinator provided with necessary resources to implement BMPs?
	<b>On Track</b>	<b>On Track</b>	
2. Water waste prevention documentation			On Track if any one of the 6 ordinance actions done, plus documentation or links provided
Descriptive File	SBMC TITLE 14 Water and [Redacted]		
Descriptive File 2010		SBMC TITLE 14 Water and Sewers, Waste of Water Enforcement Policy, Landscape Design Standards August 12, 2008, 2008 Adopting	
URL	Waste of Water Enforcement Policy, per City Ordinance No. [Redacted]		
URL 2010		0 [Redacted]	
Describe Ordinance Terms	Waste of Water Enforcement Policy, per City Ordinance No. [Redacted]		
Describe Ordinance Terms 2010		Waste of Water Enforcement Policy, per City Ordinance No. 4558, adopted on February 1989, prohibits the waste of water defined as gutter	
	<b>On Track</b>	<b>On Track</b>	



## CUWCC BMP RETAIL COVERAGE REPORT 2009-2010

### Foundation Best Management Practices for Urban Water Efficiency

#### BMP 1.2 Water Loss Control

	2009	
Complete a prescreening Audit	Yes	On Track
Metered Sales	2,536	
Verifiable Other Uses	34	
Total Supply	2,570	
(Metered Sales + System uses)/ Total Supply >0.89	1.00	On Track
If ratio is less than 0.9, complete a full scale Audit in 2009?	N/A	On Track
Verify Data with Records on File?	Yes	On Track
Operate a system Leak Detection Program?	Yes	On Track

On Track if Yes

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

On Track if Yes

On Track if Yes

On Track if Yes

	2010	
Compile Standard Water Audit using AWWA Software?	Yes	On Track
AWWA file provided to CUWCC?	WaterAudit FY10_City of	On Track
AWWA Water Audit Validity Score?	55	
Completed Training in AWWA Audit Method?	yes	
Completed Training in Component Analysis Process?	Yes	
Complete Component Analysis?	No	
Repaired all leaks and breaks to the extent cost effective?	Yes	On Track
Locate and repair unreported leaks to the extent cost effective.	Yes	On Track
Maintain a record-keeping system for the repair of reported leaks, including time of report, leak location, type of leaking pipe segment or fitting, and leak running time from report to repair.		
Provided 7 types of Water Loss Control Info		
Leaks Repaired	Value Real Losses	Value Apparent Losses
0	\$ -	\$ -
Miles Surveyed	Press Reduction	Cost of Interventions
0	Off	\$ -
Water Saved		0

On Track if Yes, Not on Track if No

On Track if Yes, Not on Track if No

Info only until 2012

Info only until 2012

Info only until 2012

On Track if Yes, Not on Track if No

On Track if Yes, Not on Track if No

Info only until 2012

Info only until 2012



## CUWCC BMP RETAIL COVERAGE REPORT 2009-2010

### Foundation Best Management Practices for Urban Water Efficiency

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

Exemption or 'At least as Effective As' accepted by CUWCC

Numbered Unmetered Accounts **2008**

Metered Accounts billed by volume of use

Number of CII accounts with Mixed Use meters

Conducted a feasibility study to assess merits of a program to provide incentives to switch mixed-use accounts to dedicated landscape meters?

Feasibility Study provided to CUWCC?

Completed a written plan, policy or program to test, repair and replace meters

	2009		2010	
	0	On Track	0	On Track
	Yes	On Track	Yes	On Track
	2,289		2,289	
	No	On Track	No	On Track
	No	On Track	No	On Track
	Yes	On Track	Yes	On Track

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

On Track if no unmetered accounts

Volumetric billing required for all connections on same schedule as metering

Info only

Required in 2011

Required in 2011

On Track if Yes, Not on Track if No



# CUWCC BMP RETAIL COVERAGE REPORT 2009-2010

## Foundation Best Management Practices for Urban Water Efficiency

Agency: **City of Santa Barbara**  
 Retail  
 Primary Contact: Alison Jordan

District Name: **City of Santa Barbara, PWD**  
 Email: [ajordan@santabarbaraca.gov](mailto:ajordan@santabarbaraca.gov)

CUWCC Unit #: **88**  
 Coverage Report Date: **June 26, 2011**

### 1.4 Retail Conservation Pricing Metered Water Rate Structure

Date 2009 data received: May 26, 2011  
 Date 2010 data received: May 26, 2011

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

Customer Class	2009 Rate Type	Conserving Rate?	Customer Class	2010 Rate Type	Conserving Rate?
Single-Family	Increasing Block	Yes	Single-Family	Increasing Block	Yes
Multi-Family	Increasing Block	Yes	Multi-Family	Increasing Block	Yes
Commercial	Increasing Block	Yes	Commercial	Increasing Block	Yes
Industrial	Increasing Block	Yes	Industrial	Increasing Block	Yes
Dedicated Irrigation	Allocation Based	Yes	Dedicated Irrigation	Allocation	Yes
<b>On Track</b>			<b>On Track</b>		

Year Volumetric Rates began for Agencies with some Unmetered Accounts

Info only

Agencies with Partially Metered Service Areas: If signed MOU prior to 31 Dec. 1997, implementation starts no later than 1 July 2010. If signed MOU after 31 Dec. 1997, implementation starts no later than 1 July 2013, or within seven years of signing the MOU,

Agency: **City of Santa Barbara**  
Retail

District Name: **City of Santa Barbara, PWD**

CUWCC Unit #: **88**  
Coverage Report Date: **June 26, 2011**



## CUWCC BMP RETAIL COVERAGE REPORT 2009-2010

### Foundation Best Management Practices for Urban Water Efficiency

**Adequacy of Volumetric Rates) for Agencies with No Unmetered Accounts**

Customer Class	2009 Rate Type	2009 Volumetric Revenues \$1000s	2010 Rate Type	2010 Volumetric Revenues \$1000s
Single-Family	Increasing Block	\$ 10,370	Single-Family	\$ 10,691
Multi-Family	Increasing Block	\$ 5,355	Multi-Family	\$ 4,476
Commercial	Increasing Block	\$ 5,148	Commercial	\$ 4,581
Industrial	Increasing Block	\$ 838	Industrial	\$ 250
Dedicated Irrigation	Allocation Based	\$ 925	Dedicated Irrigation	\$ 1,041
Other		\$ 641		\$ 552
Other		\$ -		\$ -
Total Revenue Commodity Charges (V):		\$ 23,277	\$ 21,591	
Total Revenue Fixed Charges (M):		\$ 6,013	\$ 6,264	
Calculate: V / (V + M):		79%	78%	
		<b>On Track</b>	<b>On Track</b>	

Agency Choices for rates:

A) Agencies signing MOU prior to 13 June2007, implementation starts 1 July2007: On Track if  $(V / (V + M)) \geq 70\% \times .8 = 56\%$  for 2009 and  $70\% \times 0.90 = 63\%$  for 2010; Not on track if  $(V / (V + M)) < 70\%$ ;

B) Use Canadian model. Agencies signing MOU after 13 June2007, implementation starts July 1 of year following signing.

Canadian Water & Wastewater Rate Design Model Used and Provided to CUWCC  No  
If Canadian Model is used, was 1 year or 3 year period applied?

No

**Wastewater Rates**

Does Agency Provide Sewer Service?  2009 Yes  2010 Yes

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

Customer Class	2009 Rate Type	Conserving Rate?	Customer Class	2010 Rate Type	Conserving Rate?
Single-Family	Allocation Based	Yes	Single-Family	Allocation Based	Yes
Multi-Family	Allocation Based	Yes	Multi-Family	Allocation Based	Yes
Commercial	Uniform	Yes	Commercial	Uniform	Yes
Industrial	Uniform	Yes	Industrial	Uniform	Yes
	Select a Rate Structure			Select a Rate Structure	
	Select a Rate Structure			Select a Rate Structure	
	Select a Rate Structure			Select a Rate Structure	
		<b>On Track</b>	<b>On Track</b>		

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



## CUWCC BMP RETAIL COVERAGE REPORT 2009-2010

### Foundation Best Management Practices for Urban Water Efficiency

#### BMP 2. EDUCATION PROGRAMS

##### BMP 2.1 Public Outreach Actions Implemented and Reported to CUWCC

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

	2009	2010
1) Contacts with the public (minimum = 4 times per year)	6	6
2) Water supplier contacts with media (minimum = 4 times per year, i.e., at least quarterly).	7	11
3) An actively maintained website that is updated regularly (minimum = 4 times per year, i.e., at least quarterly).	Yes	Yes
4) Description of materials used to meet minimum requirement.	Newsletter articles on conservation Flyers and/or brochures, bill stuffers, messages Landscape water conservation media campaigns General water conservation information Website News releases Newspaper contacts Radio contacts	Newsletter articles on conservation Flyers and/or brochures, bill stuffers, messages Landscape water conservation media campaigns General water conservation information Articles or stories resulting from outreach News releases Newspaper contacts Radio contacts
5) Annual budget for public outreach program.	\$ 88,551	\$ 118,219
6) Description of all other outreach programs	Description is too large for text area. Data will be stored in the BMP Reporting database when online.	Description is too large for text area. Data will be stored in the BMP Reporting database when online.
	<b>On Track for 6 Actions</b>	<b>On Track for 6 Actions</b>

All 6 action types implemented and reported to CUWCC to be 'On Track'



## CUWCC BMP RETAIL COVERAGE REPORT 2009-2010

### Foundation Best Management Practices for Urban Water Efficiency

#### 2.2 School Education Programs Implemented and Reported to CUWCC

	2009	2010	
Does a wholesale agency implement School Education Programs for this utility's benefit?	Yes	Yes	
Name of Wholesale Supplier?	Santa Barbara County Water Agency	Santa Barbara County Water Agency	
1) Curriculum materials developed and/or provided by agency	The materials we distribute include water conservation coloring books, posters, and worksheets as well as water resources and water conservation information on our website.	The materials we distribute include water conservation bookmarks, coloring books, posters, and worksheets as well as water resources and water conservation information on our website.	Yes/ No
2) Materials meet state education framework requirements and are grade-level appropriate?	Yes	Yes	All 5 actions types implemented and reported to CUWCC to be 'On Track'
3) Materials Distributed to K-6?	Yes	Yes	
Describe K-6 Materials	The City of Santa Barbara provides water conservation coloring books, pencils, posters, stickers, and worksheets to K-6 students	The City of Santa Barbara provides water conservation bookmarks, coloring books, pencils, posters, stickers, and worksheets to K-6 students	Describe materials to meet minimum requirements
Materials distributed to 7-12 students?	Yes	Yes	Info Only
4) Annual budget for school education program.	\$ 4,000	\$ 4,000	
5) Description of all other water supplier education programs	The City provides water education presentations and materials to local schools and summer camps. Tours of the City's water treatment facilities with free bus transportation are provided. The City participates in the annual Water Awareness High School Vide	The City provides water education presentations and materials to local schools and summer camps. Tours of the City's water treatment facilities with free bus transportation are provided. The City participates in the annual Water Awareness High School Vide	
	<b>See Wholesale Report</b> 0 <b>On Track</b>	<b>See Wholesale Report</b> 0 <b>On Track</b>	



## CUWCC BMP COVERAGE REPORT BMP 3 RESIDENTIAL

Agency: **City of Santa Barbara** District Name: **City of Santa Barbara, PWD** CUWCC Unit #: **88**

Primary Contact **Alison Jordan**

Date: **April 18, 2011**  
 Email **ajordan@SantaBarbaraCA.gov**

Compliance Option Chosen By Reporting Agency: **Traditional** Initial 10 year period completed: **Y** If "Yes" credit for past BMP Implementation? **Y** Historic Re **1965**  
 Completed Accounts SF Surveys: **3145** MF Surveys: **1852**  
 15% of Accounts SF **2531** MF **910**

### BMP 3 C 1) Residential Assistance

Total Number of Customers  
 Total Participants during Reporting Period  
 Number of Leak Detection Surveys or Assistance on Customer Property  
 Number of Faucet Aerators Distributed  
 Number of WSS Showerheads Distributed

2009	2009	2009	2009
Single Family Accounts	SF Target	Multi Family Units	MF Targets
16,873		6,069	
333		79	
200	127	79	46
0		0	
1		10	
		On Track	On Track

2010	2010	2010	2010
Single Family Accounts	SF Target	Multi Family Units	MF Targets
16,920		6126	
365		95	
202	127	95	46
200		45	
0		4	
		On Track	On Track

Date 2009 Data Downloaded from PDF June 1, 2011  
 Date 2019 Data Downloaded from PDF June 1, 2011

"On Track" if annual number of surveys/assistance >= 1.5% of SF accounts and MF units; or >0.75% if historical credit is

Agency: **City of Santa Barbara** District Name: **City of Santa Barbara, PWD** CUWCC Unit #: **88**

BMP 3 C2) Landscape Water Surveys	
2009	
SF	
Number of SF account landscape water surveys completed	133 127
Surveys as Percent of SF Accounts	0.79%
	On Track

2010	
SF	
Number of SF account landscape water surveys completed	163 127
Surveys as Percent of SF Accounts	0.96%
	On Track

greater than 15%  
 "On Track" if annual number of landscape surveys >= 1.5% of SF accounts

BMP 3 C3) High Efficiency Clothes Washers	
2009	
Number Financial Incentives Provided to Customers	182 152
Percent	1.69%
	On Track

2010	
Number Financial Incentives Provided to Customers	101 169
Percent	0.60%
	On Track

Historic HECW Program? **Y** "On Track" if number of incentives for HECW (WF,=5.0) => 0.9% SF accounts in 2009 and 1.0 % in 2010  
 Credit for Historic HECW **103**  
 Credit = 124 x 5/6 Credit = Total number of HECW

BMP 3 C4) Water Sense Specification Toilets	
2009	
Retrofit 'On Resale' Ordinance exists	No
75% Market Penetration Achieved	Yes
If 'Yes' is documentation provided?	On Track

2010	
Retrofit 'On Resale' Ordinance exists	No
75% Market Penetration Achieved	Yes
If 'Yes' is documentation provided?	On Track

Ordinance must require replacement of toilets => 3.5 gpf when property is sold  
 On Track if ordinance exists  
 On Track if 75% penetration achieved and documentation provided

	SF	MF Units	SF	MF Units
Five year average Resale Rate	4%	9%	4%	9%
Number Toilets per Household	2	1	2	1
Number WSS Toilets Installed	22	10	17	4
Ave Resale Rate X Toilets /residence	675	273	677	276

On Track If number of toilets installed => average resale rate X number toilets per residence (from Base Year Data)

Agency: **City of Santa Barbara**

District Name: **City of Santa Barbara, PWD**

CUWCC Unit #: **88**

**BMP 3 C5) WSS for New Residential Development**

	2009 SF	2009 MF	2010 SF	2010 MF
Does an Ordinance Exist Requiring WSS Fixtures and Appliances in new SF and MF	No	No	No	No
If 'Yes' is documentation provided?				
<b>Incentives</b>				
Number of new SF & MF units built	3	59	5	241

On Track if ordinance exists requiring WSS in new residential units and documentation is provided

If no ordinance, to be On Track, provide incentives and describe, including:

Types of Incentives	Incentive Value SF	Number WSS Fixtures Installed	Number SF Participants	Number MF Participants	Measured SF Water Savings AF	Measured MF Water Savings AF
Built Green Fast	\$ 100	14	3	8		

On Track

List Incentive Types, \$ amounts, number of WSS fixtures installed; and number of participating SF & MF homes

Types of Incentives	Incentive Value SF	Number WSS Fixtures Installed	Number SF Participants	Number MF Participants	Measured SF Water Savings AF	Measured MF Water Savings AF
Built Green Fast	\$ 100	9	3	3		



## CUWCC BMP COVERAGE REPORT

### Traditional BMP 4 - Comercial Industrial Institutional

Agency: **City of Santa Barbara** District Name: **City of Santa Barbara** CUWCC Unit #: **88**  
 Primary Contact: **Alison Jordan** Email: [ajordan@santabarbaraca.gov](mailto:ajordan@santabarbaraca.gov) Report Date: **June 30, 2011**  
 Compliance Option Chosen By Reporting Agency: **Traditional**  
 Date Agency Signed MOU: **1/28/1992** Initial 10 year period completed: **Y** If "Yes", 50% credit for past BMP 9 Implementation? **Y**  
 Water Savings Credit (AF) **8.8**

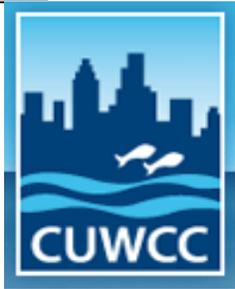
CII Baseline Water Use (AF): **2,550.0**

Target CII Water Use Reduction (AF) **255.0**  
 2 year Target (AF) **12.8**

Target Reduction is 10% of Baseline CII water use over 10 years.

**Water Efficiency Measures**

	2009 Quantity Installed	2009 Water Savings AF	2010 Quantity Installed	2010 Water Savings AF	Type of Program	Other type of Program	
1 High Efficiency Toilets (1.2 GPF or less)	72	3.0	1	0.0	Incentive		Guideline: 'On Track' if estimated savings as percent of baseline: 0.5% by the end of first reporting period 2.4% by end of yr 4, 6.4% by end of year 8 9 % by end of yr 10 CII List of Efficiency Measures from MOU Compliance Policies Tier 3, page 5, dated 10-06-09
2 High Efficiency Urinals (0.5 GPF or less)	6	0.4	0	0.0	Incentive		
3 Ultra Low Flow Urinals	6	0.5	0	0.0	Incentive		
4 Zero Consumption Urinals	6	0.6	0	0.0	Incentive		
5 Commercial High Efficiency Single Load Clothes Washers	2	0.2	0	0.0	Incentive		
6 Cooling Tower Conductivity Controllers	0	0.0	0	0.0			
7 Cooling Tower pH Controllers	0	0.0	0	0.0			
8 Connectionless Food Steamers	0	0.0	0	0.0			
9 Medical Equipment Steam Sterilizers	0	0.0	0	0.0			
10 Water Efficient Ice Machines	0	0.0	0	0.0			
11 Pressurized Water Brooms	8	1.2	0	0.0	Incentive		
12 Dry Vacuum Pumps	0	0.0	0	0.0			
<b>Total Water Savings</b>		<b>5.9</b>		<b>0.0</b>		<b>On Track</b>	



## CUWCC BMP COVERAGE REPORT

### Traditional BMP 5 - Landscape

Agency: **City of Santa Barbara**  
 Primary Contact: Alison Jordan  
 Compliance Option Chosen By Reporting Agency: Traditional  
 Date Agency Signed MOU: 1/28/1992  
 District Name: **City of Santa Barbara**  
 Email: [ajordan@santabarbara.gov](mailto:ajordan@santabarbara.gov)  
 Report Date: **June 30, 2011**  
 CUWCC Unit #: **88**  
 Initial 10 year period completed: **Y** If "Yes", 50% credit for past BMP 9 Implementation? **Y**  
 50% of Completed Accounts: **30**

#### Required Documentation

	2009	2010	
Number of dedicated irrigation meter accounts	729	712	
Number of dedicated irrigation meter accounts with water budgets	729	712	ETo-based water use budgets developed for 90% of CII accounts with dedicated irrigation meters at an average rate of 9% per year over 10 years
Percent of dedicated irrigation meters with water budgets	100.0%	100.0%	
Target Rate for Year 1	9%	18%	<b>On Track</b>
Aggregate water use for dedicated non-recreational landscape accounts with budgets	443.71	379.47	
Aggregate acreage assigned water budgets and average ET for dedicated non-recreational landscape accounts with budgets.	2009 Acres: 672.31 2009 Average ET	2010 Acres: 656.2 2010 Average ET	
2009 Accounts $\geq$ 20% over-budget	Number of Accounts: 85	Offered Technical Assistance: 20	Accepting Technical Assistance: 5
2010 Accounts $\geq$ 20% over-budget	Number of Accounts: 61	Offered Technical Assistance: 20	Accepting Technical Assistance: 5
Aggregate acreage of recreational areas assigned water budgets and average ET for dedicated recreational landscape accounts with budgets.	2009 Acres: [ ] 2009 Average ET	2010 Acres: [ ] 2010 Average ET	Offer site-specific technical assistance annually to all accounts that are 20% over budget within six years of the date implementation was to commence.

Agency: **City of Santa Barbara**

District Name: **City of Santa Barbara**

CUWCC Unit #: **88**

**CII Accounts without Meters or with Mixed-Use Meters**

	2009	2010
Number of mixed use and un-metered accounts.	<b>2289</b>	<b>2289</b>

Incentive Type	2009 Incentives and Responses		
	Incentive Value \$	Number offered to Customers	Number accepted by Customers
Smart Irrigation controllers	4653		12

Incentive Type	2010 Incentives and Responses		
	Incentive Value \$	Number offered to Customers	Number accepted by Customers
Smart Irrigation controllers	22168		45

Agency will implement and maintain a customer incentive program(s) for irrigation equipment retrofits.

	2009 Surveys	
	Number offered.	Number accepted
Landscape Irrigation Surveys	150	17

	2010 Surveys	
	Number offered.	Number accepted
Landscape Irrigation Surveys	200	29

Complete irrigation water use surveys for not less than 15% of CII accounts with mixed-use meters and un-metered accounts within 10 years of the date implementation is to commence. (Note: CII surveys that include both indoor and outdoor components can be credited against coverage requirements for both the Landscape and CII BMPs.)

Agregate acreage for Mixed Use and un-metered accounts

Percent Surveys Complete **3.3%**

On Track if the percent of CII accounts with mixed-use meters receiving a landscape water use survey equals or exceeds the following: 1.5% by the end of the first reporting period (year two) following the date implementation is to commence; 3.6% by the end of year four; 6.3% by the end of year six; 9.6% by the end of

**On Track**

Estimated annual water savings by customers receiving surveys and implementing recommendations.

2009 Savings AF **5483**

2010 Savings AF

**No Methodology Spreadsheet was uploaded**

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The fields in red are required.

Agency name:

Primary contact:

First name:

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

Reporting unit name  
(District name)

Last name:

Reporting unit number:

Email:



# Base Year Data

[Link to FAQs](#)

## Reporting Unit **Base Year**

What is your reporting period?

Base Year

### **BMP 1.3 Metering**

Number of unmetered accounts in Base Year

### **BMP 3.1 & BMP 3.2 & BMP 3.3 Residential Programs**

Number of Single Family Customers in Base Year

Number of Multi Family Units in Base Year

### **BMP 3.4 WaterSense Specification (WSS) Toilets**

Number of Single Family Housing Units constructed prior to 1992

Number of Multi Family Units prior to 1992

Average number of toilets per single family household

Average number of toilets per multi family household

Five year average resale rate of single family households

Five-year average resale rate of multi family households

Average number of persons per single family household

Average number of persons per multi family household

### **BMP 4.0 & BMP 5.0 CII & Landscape**

Total water use (in Acre Feet) by CII accounts

Number of accounts with dedicated irrigation meters

Number of CII accounts without meters or with Mixed Use Meters

Number of CII accounts

Comments:



The fields in red are required.

Agency name:

Primary contact:

First name:



Division name  
(Reporting unit)

Last name:

Reporting unit number:

Email:

# Water Uses 2009

## Non-Potable Billed

Customer Type	Meter Accounts	Metered Water Delivered	Un-metered Accounts	Un-metered Water Delivered	Description

## Non-Potable Un-Billed

Customer Type	Meter Accounts	Metered Water Delivered	Un-metered Accounts	Un-metered Water Delivered	Description

The fields in red are required.

Agency name:

Primary contact:

First name:

Division name  
(Reporting unit)

Last name:

Reporting unit number:

Email:



# WATER SOURCES

# 2009

Service Area Population:

## Potable Water

Own Supply Source Name	AF/YEAR	Water Supply Type	Water Supply Description
------------------------	---------	-------------------	--------------------------

Imported Supply Source Name	AF/YEAR	Water Supply Type	Water Supply Description
-----------------------------	---------	-------------------	--------------------------

AF/YEAR

Exported Water Name	AF/YEAR	Where Exported?
---------------------	---------	-----------------

The fields in red are required.

Agency name:

Primary contact:

First name:

Division name  
(Reporting unit)

Last name:

Reporting unit number:

Email:



# 2009

Service Area Population:

## Non- Potable Water

If you select Other for type, enter

Own Supply Source Name	AF/YEAR	Water Supply Type	Water Supply Description
------------------------	---------	-------------------	--------------------------

Imported Supply Source Name	AF/YEAR	Water Supply Type	Water Supply Description
-----------------------------	---------	-------------------	--------------------------

AF/YEAR

Exported Water Name	AF/YEAR	Where Exported? such as groundwater recharge, retail, etc.
---------------------	---------	--

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The fields in red are required.



Agency name:

Reporting unit name  
(District name)

Reporting unit number:

Primary contact:

First name:

Last name:

Email:

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

[Link to FAQs](#)

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

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

# 2009

## BMP 1.1 Operations Practices

Comments:

### Conservation Coordinator

Conservation Coordinator    Yes    No

### Contact Information

First Name

Last Name

Title

Phone

Email

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

### Water Waste Prevention

Water Agency shall do one or more of the following:

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

To document this BMP, provide the following:

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

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

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

Web address(s) URL: comma-separated list

Enter a description:

The fields in red are required.



Agency name:  
Reporting unit name  
(District name)  
Reporting unit number:

Primary contact:  
First name:  
Last name:  
Email:

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

[Link to FAQs](#)

[View MOU](#)



# 2009 BMP 1.2 Water Loss Control

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

If yes, answer the following:

Determine metered sales in AF:

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



Determine system verifiable uses AF:

Determine total supply into the system in AF:

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

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

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

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

Comments:

The fields in red are required.



Agency name:

Reporting unit name  
(District name)

Reporting unit number:

Primary contact:

First name:

Last name:

Email:

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

[Link to FAQs](#)

# 2009 BMP 1.2 Water Loss Control

[View MOU](#)



## AWWA Water Audit

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

Water Audit Validity Score  
from AWWA spreadsheet

Agency Completed Training In The AWWA Water Audit Method Yes No   
Agency Completed Training In The Component Analysis Process Yes No

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

## Water Loss Performance

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

## Recording Keeping Requirements:

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

Agency Located and Repaired Unreported Leaks to the Extent Cost Effective Yes No  
Type of Program Activities Used to Detect Unreported Leaks

## Annual Summary Information

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

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

Comments:

The fields in red are required.

Agency name:  
Reporting unit name  
(District name)  
Reporting unit number:

Primary contact:  
First name:  
Last name:  
Email:

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



# BMP 1.3 Metering with Commodity

[Link to FAQs](#)

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

See the coverage requirements for this BMP:

## Implementation

Does your agency have any unmetered service connections? Yes No

If YES, has your agency completed a meter retrofit plan? Yes No

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

Are all new service connections being metered? Yes No

Are all new service connections being billed volumetrically? Yes No

Has your agency completed and submitted electronically to the Council a written plan, policy or program to test, repair and replace meters? Yes No

### Please Fill Out The Following Matrix

Account Type	# Metered Accounts	# Metered Accounts Read	# Metered Accounts Billed by Volume	Billed by	Billing Frequency Per Year	# of estimated bills/yr
--------------	--------------------	-------------------------	-------------------------------------	-----------	----------------------------	-------------------------

Number of CII Accounts with Mixed-use Meters

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

## Feasibility Study

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

### If YES, please fill in the following information:

- A. When was the Feasibility Study conducted
- B. Email or provide a link to the feasibility study (or description of):

**File name(s): Email files to [natalie@cuwcc.org](mailto:natalie@cuwcc.org)**

**Web address(s) URL: comma-separated list**

## General Comments about BMP 1.3:

The fields in red are required.

Agency name:

Reporting unit name  
(District name)

Reporting unit number:

Primary contact:

First name:

Last name:

Email:

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



2009

## BMP 1.4 Retail Conservation Pricing

[Link to FAQs](#)

[View MOU](#)

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

### Implementation (Water Rate Structure)

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

Rate Structure	Customer Class	Total Revenue Commodity Charges	Total Revenue Customer Meter/Service (Fixed Charges)

### Implementation Option (Conservation Pricing Option)

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

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

### Retail Waste Water (Sewer) Rate Structure by Customer Class

Agency Provide Sewer Service Yes No

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

Rate Structure	Customer Class	Total Revenue Commodity Charges	Total Revenue Customer Meter/Service (Fixed Charges)

Comments:

The fields in red are required.

Agency name:

Reporting unit name  
(District name)

Reporting unit number:

Primary contact:

First name:

Last name:

Email:

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



[Link to FAQs](#)

[View MOU](#)

# 2009

## BMP 2.1 Public Outreach - Retail Reporting

### Is a Wholesale Agency Performing Public Outreach?

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

Yes No

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

### Is your agency performing public outreach?

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

#### Public Information Programs List

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

Number of Public Contacts	Public Information Programs

### Contact with the Media

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

Yes No

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

### OR Retail Agency (Contacts with the Media)

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

#### Media Contacts List

Number of Media Contacts	Did at least one contact take place during each quarter of the reporting year?	Media Contact Types

### Is a Wholesale Agency Performing Website Updates?

Did one or more CUWCC wholesale agencies agree to assume your agency's responsibility for meeting the requirements of and for CUWCC reporting of this BMP?

Yes No

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

### Is Your Agency Performing Website Updates?

Enter your agency's URL (website address):

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

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

Yes No

### Public Outreach Annual Budget

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

Category	Amount		Personnel Costs Included? If yes, check the box.	Comments	

**Comments:**

The fields in red are required.



Agency name:

Reporting unit name  
(District name)

Reporting unit number:

Primary contact:

First name:

Last name:

Email:

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

[Link to FAQs](#)

# 2009

## BMP 2.1 Public Outreach Cont'd

[View MOU](#)

### Public Outreach Expenses

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

Expense Category	Expense Amount	Personnel Costs Included?	
If yes, check the check box.			

### Additional Public Information Program

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

Were there additional Public Outreach efforts?

Yes No

### Public Outreach Additional Information

Public Information Programs	Importance	

### Social Marketing Programs

#### Branding

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

Describe the brand, theme or mascot.

#### Market Research

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

Market Research Topic

Brand Message

Brand Mission Statement

### Community Committees

Do you have a community conservation committee? Yes No

Enter the names of the community committees:

### Training

Training Type	# of Trainings	# of Attendees	Description of Other	

### Social Marketing Expenditures

#### Public Outreach Social Marketing Expenses

Expense Category	Expense Amount	Description	

### Partnering Programs - Partners

Name Type of Program

CLCA?

Green Building Programs?

Master Gardeners?

Cooperative Extension?

Local Colleges?

Other

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

### Partnering Programs - Newsletters

Number of newsletters per year

Number of customers per year

**Partnering with Other Utilities**

Describe other utilities your agency partners with, including electrical utilities

**Conservation Gardens**

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

**Landscape contests or awards**

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

Comments:

The fields in red are required.



Agency name:

Reporting unit name  
(District name)

Reporting unit number:

Primary contact:

First name:

Last name:

Email:

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

[Link to FAQs](#)

[View MOU](#)

# 2009

## BMP 2.2 School Education Programs, Retail Agencies

### School Programs

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

Yes No

Enter Wholesaler Names, separated by commas:

Materials meet state education framework requirements?

Description of Materials

Materials distributed to K-6 Students?

Description of materials distributed to K-6 Students

Number of students reached

Materials distributed to 7-12 Students?

Description of materials distributed to 7-12 Students

Number of Distribution

Annual budget for school education program

Description of all other water supplier education programs

### School Program Activities

**Classroom presentations:**

Number of presentations

Number of attendees

**Large group assemblies:**

Number of presentations

Number of attendees

**Children's water festivals or other events:**

Number of presentations

Number of attendees

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

Number of presentations

Number of attendees

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

Description

Number distributed

**Staffing children's booths at events & festivals:**

Number of booths

Number of attendees

**Water conservation contests such as poster and photo:**

Description

Number distributed

**Offer monetary awards/funding or scholarships to students:**

Number Offered

Total Funding

**Teacher training workshops:**

Number of presentations

Number of attendees

**Fund and/or staff student field trips to treatment facilities, recycling facilities, water conservation gardens, etc.:**

Number of tours or field trips

Number of participants

**College internships in water conservation offered:**

Number of internships

Total funding

**Career fairs/workshops:**

Number of presentations

Number of attendees

**Additional program(s) supported by agency but not mentioned above:**

Description

Number of events (if applicable)

Number of participants

**Total reporting period budget expenditures for school education programs (include all agency costs):**

Comments

The fields in red are required.



Agency name:

Reporting unit name  
(District name)

Reporting unit number:

Primary contact:

First name:

Last name:

Email:

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

[Link to FAQs](#)

[View MOU](#)

# 2009

## BMP 3 Residential

**Traditional**  
**(Sections A - D)**

**Flex Track**  
**(All Sections)**

For Traditional Track please answer the fields within the traditional boxes.

For Flex Track option, please answer the fields within the flex track boxes.

You must enter all measured water savings manually. For each measure entered, upload a spreadsheet with sufficient information to show the way that water savings were measured and that the measure was adequately tracked ( i.e., all relevant data was collected ) - in some cases there are specific data points also requested in form which are necessary to show that the measure was implemented as described.

### A) Residential Assistance / Leak Detection

			Total Water Savings AF/YR	Measured Water Savings AF/YR
	Single Family	Multi Family		
<b>Traditional</b>	Total Number of Accounts			
	Total Number of Participants Overall			
	Total Number of Leak Det Surveys			
	Total Number of Showerheads			
	Total Number of Faucet Aerators			
	Total Number of Landscape Water Survey			
	Number of Other Components			
	Description of Other Components Distributed			
If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data) (Enter the file name and Email file to Natalie@cuwcc.org)				

### B) High Efficiency Clothes Washers (HECWs)

<b>Flex Track</b>	<b>Traditional</b>	Number of incentives for HECWs with an AVERAGE Water Factor of 5.0				
		Are Financial incentives provided for HECWs ?	Yes	No		
		Has your Agency completed a HECW Market Penetration Study (this question does not impact your coverage report, purely informational)	Yes	No		
		HECW Market Penetration Study Documents (Enter the file name and Email file to Natalie@cuwcc.org)				
					<b>Measured water savings (AF/Year)</b>	

If you are using your own water-savings measure, send your supporting spreadsheet  
Enter the file name and Email to Natalie@cuwcc.org

### C) WaterSense Specification (WSS) Toilets

(Agency must complete information for at least one coverage option (For Traditional 1, 2, or 3; For Flex Track 1, 2, 3, or 4).

You are encouraged to include information on other coverage options, as available.

If seeking credit for additional water savings, you must select Flex Track option)

<b>Traditional</b>	<b>1. Retrofit Resale Ordinance is in Place</b> <b>Yes</b> <b>No</b>
	If Yes, Choose A File (Enter the file name and Email file to Natalie@cuwcc.org)
<b>Flex Track</b>	<b>2. A 75% Market Saturation Achieved</b> <b>Yes</b> <b>No</b>
	If yes, Choose A File (Enter the file name and Email file to Natalie@cuwcc.org)
	<b>3. WSS Toilets Installed</b>
	Number of WSS Toilets Installed
	Single Family      Multi Family
	Measured Water Savings AF/YR
	<b>4. Non-WSS Toilets</b>
	Type of Toilets      Number of Toilets      Water Savings      Number of Toilets      Water Savings
	Single Family      Multi Family
	Description of Other Non-WSS Type of Toilets
	If you are using your own water-savings measure, send your supporting spreadsheet Enter the file name and Email to Natalie@cuwcc.org

### D) WSS for New Residential Development

(Agency must complete information for at least one coverage option. You are encouraged to include information on other coverage options, as available. If seeking credit for additional water savings you must select the Flex Track option)

**Traditional**

	Single Family		Multi Family	
Residential development Rebates	Yes	No	Yes	No
Recognition Programs	Yes	No	Yes	No
Reduced connection Fees	Yes	No	Yes	No
Ordinances	Yes	No	Yes	No

New Development Ordinance  
 (Enter the file name and Email file to Natalie@cuwcc.org)

Number of new Single Family Units built in Service Area

Number of new Multi Family Units built in Service Area

In the following table, enter one row for each incentive typr program you offer

List of Incentive Amount

Incentive Type	Incentive Amount	Number of WSS fixtures installed	Number of Participating		Measured Water Savings	
			Single Family	Multi Family	Single Family	Multi Family

**Flex Track**

If you are using your own water-savings measure, send your supporting spreadsheet  
 Enter the file name and Email to Natalie@cuwcc.org

**For Traditional Option, Stop Here, do not go further.**

**For Flex Track Option, please continue...**

## Flex Track Menu Options

In addition to the measures on the BMP List, the Flex Track menu options may be implemented to meet the savings goal for this BMP. Fill in the water savings measures that your agency has implemented.

**E) High bill contact with single-family and multi-family customers**

**Measured water savings (AF/Year)**

Select the Types of Contact:

Email      Phone      Letter      Others (describe)

Upload sample of contact contents (email, letter, etc. )  
– if applicable; enter the file name and email file to Natalie@cuwcc.org

Who initiated the contact: (Please Specify customer, agencies, or both)

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)  
(Enter the file name and Email file to Natalie@cuwcc.org)

---

**F) Educate residential customers about the behavioral aspects of water conservation**

**Measured water savings (AF/Year)**

**Select types of educational methods used:**

**# Events**

**# Customers Reached**

Workshop

Community Event

Letter

On-Site Visit

Phone Call

Water Survey

Website Hit

Door Hanger

Other (Describe)

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)  
(Enter the file name and Email file to Natalie@cuwcc.org)

---

**G) Notify residential customers of leaks on the customer's side of the meter**

**Measured  
water savings  
(AF/Year)**

Type of Notification (Describe)

How many were sent out?

Upload sample notification method(email, letter, etc. ) – if applicable

(Enter the file name and Email file to Natalie@cuwcc.org)

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)

(Enter the file name and Email file to Natalie@cuwcc.org)

---

**H) Provide bill or surcharge refunds for customers to repair leaks  
on the customer's side of the meter.**

A YUj: fYX  
k UHYf: gUj ]b[ g  
fB: #WUfL

Number of Leaks Repaired

Number of bill adjustments/credits/refunds provided

Describe here or upload a document with a policy description below:

Upload file describing Policy (Enter the file name and Email file to Natalie@cuwcc.org)

If you are using your own water-savings measure, send your supporting spreadsheet

Enter the file name and Email to Natalie@cuwcc.org

---

**I) Provide unique water savings fixtures that are not included in  
the BMP list above**

Fixture or Device

Description

Quantity Installes

Measured water  
savings (AF/YR)

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)  
(Enter the file name and Email file to Natalie@cuwcc.org)

---

### **J) Install residence water use monitors.**

Type of Monitor	6 fUbX	Number Installed	Measured water savings (AF/Year)
Dashboard			
Leak Detector			
Data Logger			

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)  
(Enter the file name and Email file to Natalie@cuwcc.org)

---

### **K) Participate in programs that provide residences with school water conservation kits.**

Number of Kits Distributed			
Kit contents (including model of fixtures)			Measured water savings (AF/Year)
List of what was actually installed in the homes (number of showerheads, aerators etc.).			

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)  
(Enter the file name and Email file to Natalie@cuwcc.org)

---

### **L) Implement an automatic meter reading program for residential customers.**

AMR or AMI	Type of Network		Measured water savings (AF/Year)
Number of connections installed			
Is your agency using these to contact high water-use customers?			

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)  
(Enter the file name and Email file to Natalie@cuwcc.org)

**OTHER Types of Measures.**

Type of Program

Sample / Description

Measured Water Savings (AF/YR)

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)  
(Enter the file name and Email file to [Natalie@cuwcc.org](mailto:Natalie@cuwcc.org))

**Comments**

The fields in red are required.



Agency name:  
Reporting unit name  
(District name)  
Reporting unit number:

Primary contact:  
First name:  
Last name:  
Email:

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

# 2009

[Link to FAQs](#)

[View MOU](#)

## BMP 4 CII

Traditional  
(Section A - L)

Flex Track  
(All Sections)

For Traditional Track please answer the fields within the traditional boxes.

For Flex Track option, please answer the fields within the flex track boxes.

You must enter all measured water savings manually in the summary cells on the right. For each measure entered, upload a spreadsheet with sufficient information to show the way that water savings was measured and that the measure was adequately tracked (i.e., all relevant data was collected) - in some cases there are specific data points also requested in the flex track data entry form which are necessary to show that the measure was implemented as described.

### CII Type of measure implemented

<b>Traditional</b>	<b>A) High - Efficiency Toilets.</b>		<b>Measured water savings (AF/Year)</b>
	Number		
<b>Flex Track</b>	Type of program	Select an Option	<div style="border: 1px solid black; padding: 5px;">           Council's Annual Water Savings 0.041748 AF per device         </div>
	Other type of program		
	Do you accept the Council's default savings number for this measure?	Yes No	
	If not, Please provide the following:		
	Total Measured Water Savings(AF/Year)		
Measure life (years)			
Lifetime water savings (years)			
If you are using your own water-savings measure, send your supporting spreadsheet Enter the file name and Email to <a href="mailto:Natalie@cuwcc.org">Natalie@cuwcc.org</a>			

### B) High - Efficiency Urinals ( 0.5 gpf )

<b>Flex Track</b>	<b>Traditional</b> Number Type of program Other type of program	<b>Measured water savings (AF/Year)</b>
	Do you accept the Council's default savings number for this measure?      Yes   No If not, Please provide the following Total Measured Water Savings(AF/Year) Measure life (years) Lifetime water savings (years) If you are using your own water-savings measure, send your supporting spreadsheet Enter the file name and Email to Natalie@cuwcc.org	Council's Annual Water Savings 0.069086 AF per device

### C) Ultra Low Volume Urinals (0.125 gpf)

<b>Flex Track</b>	<b>Traditional</b> Number Type of program Other type of program	<b>Measured water savings (AF/Year)</b>
	Do you accept the Council's default savings number for this measure?      Yes   No If not, Please provide the following Total Measured Water Savings(AF/Year) Measure life (years) Lifetime water savings (years) If you are using your own water-savings measure, send your supporting spreadsheet Enter the file name and Email to Natalie@cuwcc.org	Council's Annual Water Savings 0.080603 AF per device

### D) Zero Consumption Urinals (0.0 gpf)

<b>Flex Track</b>	<b>Traditional</b> Number Type of program Other type of program	<b>Measured water savings (AF/Year)</b>
	Do you accept the Council's default savings number for this measure?      Yes   No	

**Flex Track**

If not, Please provide the following:  
Total Measured Water Savings(AF/Year)  
Measure life (years)  
Lifetime water savings (years)  
If you are using your own water-savings measure, send your supporting spreadsheet  
Enter the file name and Email to Natalie@cuwcc.org

Council's Annual Water Savings 0.0921146  
AF per device

### E) Commercial High - Efficiency Single Load Clothes Washers

**Traditional**

Number  
Type of program  
Other type of program

**Measured water savings (AF/Year)**

**Flex Track**

Do you accept the Council's default savings number for this measure ?      Yes   No  
If not , Please provide the following:  
Total Measured Water Savings(AF/Year)  
Measure life (years)  
Lifetime water savings (years)  
If you are using your own water-savings measure, send your supporting spreadsheet  
Enter the file name and Email to Natalie@cuwcc.org

Council's Annual Water Savings 0.116618  
AF per device

### F) Cooling Tower Conductivity Controllers.

**Traditional**

Number  
Type of program  
Other type of program

**Measured water savings (AF/Year)**

**Flex Track**

Do you accept the Council's default savings number for this measure ?      Yes   No  
If not, Please provide the following:  
Total Measured Water Savings(AF/Year)  
Measure life (years)  
Lifetime water savings (years)  
If you are using your own water-savings measure, send your supporting spreadsheet  
Enter the file name and Email to Natalie@cuwcc.org

Council's Annual Water Savings 1.032250  
AF per device

### G) Cooling Tower pH Controllers

<b>Traditional</b>	Number	<b>Measured water savings (AF/Year)</b>	
	Type of program		
	Other type of program		
<b>Flex Track</b>	Do you accept the Council's default savings number for this measure ?	Yes No	<b>Council's Annual Water Savings 3.981543 AF per device</b>
	If not, Please provide the following:		
	Total Measured Water Savings(AF/Year)		
	Measure life (years)		
	Lifetime water savings (years)		
	If you are using your own water-savings measure, send your supporting spreadsheet		
	Enter the file name and Email to <a href="mailto:Natalie@cuwcc.org">Natalie@cuwcc.org</a>		

### H) Connectionless Food Steamers.

<b>Traditional</b>	Number	<b>Measured water savings (AF/Year)</b>	
	Type of program		Select an Option
	Other type of program		
<b>Flex Track</b>	Do you accept the Council's default savings number for this measure ?	Yes No	<b>Council's Annual Water Savings 0.25 AF per Steamer Compartment</b>
	If not, Please provide the following:		
	Total Measured Water Savings(AF/Year)		
	Measure life (years)		
	Lifetime water savings (years)		
	If you are using your own water-savings measure, send your supporting spreadsheet		
	Enter the file name and Email to <a href="mailto:Natalie@cuwcc.org">Natalie@cuwcc.org</a>		

### I) Medical Equipment Steam Sterilizers

<b>Flex Track</b>	<b>Traditional</b>	Number	<b>Measured water savings (AF/Year)</b>	
		Type of program		Select an Option
		Other type of program		

**Flex Track**

Do you accept the Council's default savings number for this measure? Yes No

Council's Annual Water Savings 1.538 AF per device

If not, Please provide the following:

Total Measured Water Savings(AF/Year)

Measure life (years)

Lifetime water savings (years)

If you are using your own water-savings measure, send your supporting spreadsheet Enter the file name and Email to Natalie@cuwcc.org

### J) Water - Efficient Ice Machines.

**Traditional**

Number  
Type of program Select an Option  
Other type of program

**Measured water savings (AF/Year)**

**Flex Track**

Do you accept the Council's default savings number for this measure ? Yes No  
If not, Please provide the following:

Council's Annual Water Savings 0.0834507 AF per device

Total Measured Water Savings(AF/Year)

Measure life (years)

Lifetime water savings (years)

If you are using your own water-savings measure, send your supporting spreadsheet Enter the file name and Email to Natalie@cuwcc.org

### K) Pressurized Water Brooms.

**Traditional**

Number  
Type of program Select an Option  
Other type of program

**Measured water savings (AF/Year)**

**Flex Track**

Do you accept the Council's default savings number for this measure? Yes No

Council's Annual Water Savings 0.1534 AF per device

**Flex Track**

If not, Please provide the following:

Total Measured Water Savings(AF/Year)

Measure life (years)

Lifetime water savings (years)

If you are using your own water-savings measure, send your supporting spreadsheet  
Enter the file name and Email to Natalie@cuwcc.org

### L) Dry Vacuum Pumps.

**Traditional**

Number

Type of program      Select an Option

Other type of program

**Measured water savings (AF/Year)**

**Flex Track**

Do you accept the Council's default savings number for this measure?      Yes   No

If not, Please provide the following:

Total Measured Water Savings(AF/Year)

Measure life (years)

Lifetime water savings (years)

If you are using your own water-savings measure, send your supporting spreadsheet  
Enter the file name and Email to Natalie@cuwcc.org

Council's Annual Water Savings 0.064 AF per device

**Traditional Reporting Stop Here, Do not continue**

**Flex Track Reporting Please Continue...**

### M) Industrial Process Water Use Reduction.

Number

Type of program

Other type of program

Type of Process  
Water Reduced

If re-using water, what was the secondary use of the water?  
(such as pre-rinse cycle or landscaping)

**Measured water savings (AF/Year)**

Total Measured Water Savings(AF/Year)

Measure life (years)

Lifetime water savings (years)

If you are using your own water-savings measure, send your supporting spreadsheet  
Enter the file name and Email to [Natalie@cuwcc.org](mailto:Natalie@cuwcc.org)

## N) Commercial Laundry Retrofits.

Number of  
customers

**Measured  
water savings  
(AF/Year)**

hotels  
campuses  
prisons  
laundromats

Lease / own  
machines      Lease    Own Machines    Both

Type of program      Select an Option

Other type of  
program

Total Measured Water Savings(AF/Year)

Measure life (years)

Lifetime water savings (years)

If you are using your own water-savings measure, send your supporting spreadsheet  
Enter the file name and Email to [Natalie@cuwcc.org](mailto:Natalie@cuwcc.org)

## O) Industrial Laundry Retrofits.

**Measured  
water savings  
(AF/Year)**

Total Number of  
customers

Total Volume of  
laundry  
processed  
annually

Select an Option

Type of program      Select an Option

Other type of  
program

Total Measured Water Savings(AF/Year)

Measure life (years)

Lifetime water savings (years)

If you are using your own water-savings measure, send your supporting spreadsheet  
Enter the file name and Email to [Natalie@cuwcc.org](mailto:Natalie@cuwcc.org)

### **P) Filter Upgrades (for pools, spas, and fountains).**

Number of pools  
upgraded

Number of spas  
upgraded

Number of  
fountains  
upgraded

Type of program      Select an Option

Other type of  
program

**Measured  
water savings  
(AF/Year)**

Total Measured Water Savings(AF/Year)

Measure life (years)

Lifetime water savings (years)

If you are using your own water-savings measure, send your supporting spreadsheet  
Enter the file name and Email to [Natalie@cuwcc.org](mailto:Natalie@cuwcc.org)

### **Q) Car Wash Reclamation Systems**

**Measured  
water savings  
(AF/Year)**

Total Number of program participants (accounts)  
Total Number of vehicles washed annually

Conveyor

In-bay

Do you accept the Council's default savings number for this measure?

Yes No

Council's Annual Water Savings 0.00004607 (or 15 gals) per vehicle
--

If not, Please provide the following:

Total Measured Water Savings(AF/Year)

Measure life (years)

Lifetime water savings (years)

If you are using your own water-savings measure, send your supporting spreadsheet Enter the file name and Email to [Natalie@cuwcc.org](mailto:Natalie@cuwcc.org)

## R) Wet Cleaning.

Brief description of program

**Measured water savings (AF/Year)**

Total Measured Water Savings(AF/Year)

Measure life (years)

Lifetime water savings (years)

If you are using your own water-savings measure, send your supporting spreadsheet Enter the file name and Email to [Natalie@cuwcc.org](mailto:Natalie@cuwcc.org)

## S) Water Audits (To avoid double counting, do not include device/replacement water savings.)

Number of water audits by type of business

**Measured water savings (AF/Year)**

Auto

Food

Health

Hotels

Manufacturing

Membership

Multi-use

Office

Religious

Restaurant

Retail/  
Wholesale

School

Other (with  
description)

Description of  
Other

Total Measured Water Savings(AF/Year)

Measure life (years)

Lifetime water savings (years)

If you are using your own water-savings measure, send your supporting spreadsheet  
Enter the file name and Email to [Natalie@cuwcc.org](mailto:Natalie@cuwcc.org)

**T) Clean In Place (CIP) Technology  
(such as bottle sterilization in a beverage processing plant)**

**Measured  
water savings  
(AF/Year)**

Number of  
customers

Type of program

Other type of  
program

Total Measured Water Savings(AF/Year)

Measure life (years)

Lifetime water savings (years)

If you are using your own water-savings measure, send your supporting spreadsheet  
Enter the file name and Email to [Natalie@cuwcc.org](mailto:Natalie@cuwcc.org)

### **U) Waterless Wok**

Number

Type of program

**Measured  
water savings  
(AF/Year)**

Total Measured Water Savings(AF/Year)

Measure life (years)

Lifetime water savings (years)

If you are using your own water-savings measure, send your supporting spreadsheet  
Enter the file name and Email to [Natalie@cuwcc.org](mailto:Natalie@cuwcc.org)

### **V) Alternative On-site Water Sources (For Rain Water Harvesting, commercial rain barrels are excluded. For Foundation Drain Water, exclude permeable paving.)**

**Measured  
water savings  
(AF/Year)**

Select type	Number	Description
-------------	--------	-------------

Cooling Condensate		
-----------------------	--	--

Foundation Drain Water		
------------------------------	--	--

Gray Water		
---------------	--	--

Storm Water		
----------------	--	--

Rain Water		
---------------	--	--

Pond and Water Feature Recycling		
---	--	--

Total Measured Water Savings(AF/Year)

Measure life (years)

Lifetime water savings (years)

If you are using your own water-savings measure, send your supporting spreadsheet  
Enter the file name and Email to Natalie@cuwcc.org

### W) Sub - metering

**Measured  
water savings  
(AF/Year)**

Select type      Number      Description

Condominiums

    Apartments

    Mobile  
Homes

Do you accept the  
Council's default  
savings numbers for this  
measure?                      Yes    No

If not, Please provide the following:

Total Measured Water Savings(AF/Year)

Measure life (years)

Lifetime water savings (years)

If you are using your own water-savings measure, send your supporting spreadsheet  
Enter the file name and Email to Natalie@cuwcc.org

Council's Annual Water Savings Apartments & Condos=0.024419 AF/YR Mobile Home = 0.056774 AF/Yr
--

### X) High Efficiency Showerheads

**Measured  
water savings  
(AF/Year)**

Number

Type of program

Other type of  
program

Total Measured Water Savings(AF/Year)

Measure life (years)

Lifetime water savings (years)

If you are using your own water-savings measure, send your supporting spreadsheet  
Enter the file name and Email to Natalie@cuwcc.org

## Y) Faucet Flow Restrictors

**Measured  
water savings  
(AF/Year)**

Number

Type of program

Other type of  
program

Total Measured Water Savings(AF/Year)

Measure life (years)

Lifetime water savings (years)

If you are using your own water-savings measure, send your supporting spreadsheet  
Enter the file name and Email to Natalie@cuwcc.org

## Z) Water Efficient Dishwashers

**Measured  
water savings  
(AF/Year)**

Select type

Number

Rack

Conveyor

Other

Description  
of Other

Type of  
program

Select an Option

Other type of  
program

Total Measured Water Savings(AF/Year)

Measure life (years)

Lifetime water savings (years)

If you are using your own water-savings measure, send your supporting spreadsheet  
Enter the file name and Email to [Natalie@cuwcc.org](mailto:Natalie@cuwcc.org)

### **AA) Hot Water on Demand**

**Measured  
water savings  
(AF/Year)**

Number

Type of program

Other type of  
program

Total Measured Water Savings(AF/Year)

Measure life (years)

Lifetime water savings (years)

If you are using your own water-savings measure, send your supporting spreadsheet  
Enter the file name and Email to [Natalie@cuwcc.org](mailto:Natalie@cuwcc.org)

### **BB) Pre-rinse Spray Valves of 1.3 gpm (gallons per minute) or less**

**Measured  
water savings  
(AF/Year)**

Number

Type of program

Other type of  
program

Total Measured Water Savings(AF/Year)

Measure life (years)

Lifetime water savings (years)

If you are using your own water-savings measure, send your supporting spreadsheet  
Enter the file name and Email to Natalie@cuwcc.org

### **CC) Central Flush Systems**

**Measured  
water savings  
(AF/Year)**

Number

Type of program

Other type of  
program

Total Measured Water Savings(AF/Year)

Measure life (years)

Lifetime water savings (years)

If you are using your own water-savings measure, send your supporting spreadsheet  
Enter the file name and Email to Natalie@cuwcc.org

### **Other Measures chosen by the Agency**

**Measured  
water savings  
(AF/Year)**

Description of  
program

Sample (if  
applicable)

Total Measured Water Savings(AF/Year)

Measure life (years)

Lifetime water savings (years)

If you are using your own water-savings measure, send your supporting spreadsheet  
Enter the file name and Email to Natalie@cuwcc.org



The fields in red are required.

Agency name:  
Reporting unit name  
(District name)  
Reporting unit number:

Primary contact:  
First name:  
Last name:  
Email:

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

# 2009

## BMP 5 Landscape

[Link to FAQs](#)

[View MOU](#)

### Traditional

### Flex Track

For Traditional Track please answer the fields within the traditional boxes.

For Flex Track option, please answer the fields within the flex track boxes.

You must enter all measured water savings manually. For each measure entered, upload a spreadsheet with sufficient information to show the way that water savings were measured and that the measure was adequately tracked ( i.e., all relevant data was collected ) - in some cases there are specific data point also requested in form which are necessary to show that the measure was implemented as described.

#### Accounts with Dedicated Irrigation Meters

<b>Flex Track</b>	<b>Traditional</b>	<p>Number of dedicated irrigation meter accounts</p> <p>Number of dedicated irrigation meter accounts with water budgets</p> <p>Aggregate water use for dedicated non-recreational landscape accounts with budgets</p> <p>Aggregate acreage assigned water budgets for dedicated non-recreational landscape accounts with budgets</p> <p>Preserved water use records and budgets for customers with dedicated landscape irrigation accounts for at least four years <span style="float: right;">Yes   No</span></p>
		<p>Water Savings from Accounts with dedicated irrigation meters with water budgets (Acre Feet)</p> <p>If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data) (Enter the file name and Email file to Natalie@cuwcc.org)</p>

#### Technical Assistance

<b>Flex Track</b>	<b>Traditional</b>	<p>Number of Accounts 20% over-budget</p> <p>Number of accounts 20% over-budget offered technical assistance</p> <p>Number of accounts 20% over-budget accepting technical assistance</p>	<b>Measured water savings (AF/Year)</b>
		<p>If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data) (Enter the file name and Email file to Natalie@cuwcc.org)</p>	

**Irrigation Water Use Surveys for Mixed-use and Un-metered Accounts**

<b>Traditional</b>	Number of mixed use and un-metered accounts Number of irrigation water use surveys offered (cumulative, all years) Number of irrigation water use surveys accepted (cumulative) Can your Agency estimate the amount of landscape acreage for mixed use and Un-metered accounts <span style="float: right;">Yes    No</span> If Yes, Aggregate acreage for mixed use and Un-metered accounts	<b>Measured water savings (AF/Year)</b>
	Estimated water demand from acreage for mixed use and Un-metered accounts Annual water savings by customers receiving irrigation water savings surveys and implementing recommendations If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data) (Enter the file name and Email file to Natalie@cuwcc.org)	

**Financial Incentives**

<b>Traditional</b>	Have you implemented and maintained an irrigation equipment retrofit incentive program? <span style="float: right;">Yes    No</span> Number of incentives      Dollar value of incentives      Incentive Types	<b>Measured Water Savings (AF/YR)</b>
	If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data) (Enter the file name and Email file to Natalie@cuwcc.org)	

**Traditional Reporting Stop Here, Do not continue  
 Flex Track Reporting Please Continue...**

# Landscape Flex Track Measure Types

---

## 1. Monitor and report on landscape water use

**A) Measure landscapes and develop water budgets for customers with dedicated landscape meters. Provide timely water use reports with comparisons of water use to budget that provide customers the information they need to adjust irrigation schedules (such as faxes, twitter, etc. not included in the previous sections).**

**Measured  
water savings  
(AF/Year)**

Enter the Number of sites with:

Dedicated Mixed Meters

Water Budgets

Landscape Measurements

Others (describe)

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)  
(Enter the file name and Email file to [Natalie@cuwcc.org](mailto:Natalie@cuwcc.org))

---

**B) Measure landscapes and develop water budgets for customers with Mixed Use meters. Provide timely water use reports with comparisons of water use to budget that provide customers the information they need to adjust irrigation schedules.**

**Measured  
water savings  
(AF/Year)**

Enter the Number of sites with:

Dedicated Mixed Meters

Water Budgets

Landscape Measurements

Others (describe)

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)  
(Enter the file name and Email file to [Natalie@cuwcc.org](mailto:Natalie@cuwcc.org))

---

**C) Establish agency-wide water budget. (Note that: ETo based water budget in the MWELo changed in 2010 from .8ETo to .7ETo.)**

Agency-wide total irrigated area (Acres)

**Measured  
water savings  
(AF/Year)**

Amount of Water Used (AF/Acre)

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)  
(Enter the file name and Email file to Natalie@cuwcc.org)

---

**D) Establish agency-wide, sector-based irrigation goal to reduce water use, based on seasonality.**

Number of minimum irrigation goal	(AF/Acre)	<b>Measured water savings (AF/Year)</b>
Amount of Water Used per Period	(AF/Period)	

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)  
(Enter the file name and Email file to Natalie@cuwcc.org)

---

**2. Provide technical landscape resources and training**

**A) Upon customer requests, provide landscape irrigation management and landscape design information and resources: provide assistance, answer customer questions, respond to run-off and high-bill calls.**

Enter the Number of:

Contacts In Person

Contacts over the phone

Contacts via Email

**Measured water savings (AF/Year)**

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)  
(Enter the file name and Email file to Natalie@cuwcc.org)

---

**B) Perform landscape & irrigation audits: including irrigation scheduling, plant information, and landscape area measurement.**

Enter the Number of:

Audits conducted per year

Measurement of square footage of Turf areas

Measurement of square footage of NON Turf areas

**Measured water savings (AF/Year)**

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)  
(Enter the file name and Email file to Natalie@cuwcc.org)

---

**C) Sponsor, co-sponsor, promote, or support landscape workshops, training, presentations and other technical educational events for homeowners and professionals: design, installation, maintenance, water management.**

Enter the Number of:

Events

Participants

List Type or  
Title of Events

**Measured  
water savings  
(AF/Year)**

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)  
(Enter the file name and Email file to Natalie@cuwcc.org)

---

**D) Establish Time-of-Day Irrigation Restrictions.**

Describe Restrictions:

Yes

No

**Measured  
water savings  
(AF/Year)**

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)  
(Enter the file name and Email file to Natalie@cuwcc.org)

---

**E) Establish Day-of-Week Irrigation Restrictions.**

Yes

No

Describe Restrictions:

**Measured  
water savings  
(AF/Year)**

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)  
(Enter the file name and Email file to Natalie@cuwcc.org)

---

**3. Provide incentives**

**A) Establish Landscape budget-based rates.**

Yes

No

Describe Rates:

**Measured  
water savings  
(AF/Year)**

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)  
(Enter the file name and Email file to [Natalie@cuwcc.org](mailto:Natalie@cuwcc.org))

---

**B) Provide incentives for conversions from mixed-use meters to dedicated landscape meters.**

Number of Conversions:

**Measured  
water savings  
(AF/Year)**

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)  
(Enter the file name and Email file to [Natalie@cuwcc.org](mailto:Natalie@cuwcc.org))

---

**C) Provide incentives for installing sub-meters to separate landscape water use**

Number of meters installed:

**A YUg fYX  
k UHYf'gUJ ]b[ g  
fB: #WUFL**

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)  
(Enter the file name and Email file to [Natalie@cuwcc.org](mailto:Natalie@cuwcc.org))

---

**D) Provide incentives for irrigation equipment upgrades that improve distribution uniformity, irrigation efficiency, or scheduling capabilities.**

Select types of irrigation  
equipment upgrades:

Number of devices  
installed

**Measured  
water savings  
(AF/Year)**

Controllers

Emitters

Soil moisture sensors

Pressure Regulators

Rain shut off devices

Other (describe)

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)  
(Enter the file name and Email file to Natalie@cuwcc.org)

---

**E) Provide incentives for the reduction of water use over an irrigated area, or reduction in the size of the irrigated area due to replacement of turf or other high water-using plants with low water-using plants, artificial turf, or permeable surfaces.**

Acreage of live turf converted to low water-using plants, artificial turf, or permeable surfaces:

Acres

**Measured  
water savings  
(AF/Year)**

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)  
(Enter the file name and Email file to Natalie@cuwcc.org)

---

**F) Provide incentives for conversions from potable to recycled water.**

Number of  
Conversions:

Number of  
Incentives:

Funds Invested:

**Measured  
water savings  
(AF/Year)**

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)  
(Enter the file name and Email file to Natalie@cuwcc.org)

---

**G) Provide incentives for the use of alternative sources of water in the landscape (i.e. gray water, rainwater, cisterns, etc.)**

Number of  
Conversions:

Number of  
Incentives:

Funds Invested:

**Measured  
water savings  
(AF/Year)**

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)  
(Enter the file name and Email file to Natalie@cuwcc.org)

---

#### 4. Participate in local and regional planning and regulatory activities

- A) Collaborate with planning agencies at the local and regional level, other water suppliers in the area and stakeholders in response to state or federal requirements such as the State Model Water Efficient Landscape Ordinance and AB 1881. Participate in the development, review, implementation, and enforcement of requirements for new developments. Provide water use data to planning agencies.

**Measured  
water savings  
(AF/Year)**

Public Information Programs List

Agency Type

Describe Involvement

If Ohter: Enter Name

Actions

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data) (Enter the file name and Email file to [Natalie@cuwcc.org](mailto:Natalie@cuwcc.org))

- 
- B) Establish or participate in a water conservation advisory committee or other community outreach effort to drive market transformation and exchange information about landscape water conservation with developers, community-based organizations, homeowners associations, residential customers, landscape professionals, educators, other water suppliers in region.

Yes No

Describe Involvement:

**Measured  
water savings  
(AF/Year)**

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)  
(Enter the file name and Email file to Natalie@cuwcc.org)

---

**C) Participate in regional efforts: integrated water resource management, watershed management, NPDES permit agencies, etc.**

Yes      No

**Measured  
water savings  
(AF/Year)**

Describe Involvement:

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)  
(Enter the file name and Email file to Natalie@cuwcc.org)

---

**5. Develop a holistic approach to landscape water use efficiency**

**A) Develop and implement a comprehensive landscape water conservation program for all customers. Target marketing efforts to those most likely to result in benefits to both customer and Agency.**

Describe Program:

**Measured  
water savings  
(AF/Year)**

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)  
(Enter the file name and Email file to Natalie@cuwcc.org)

---

**6. Other Measures**

**A) Other Landscape Measures.**

Describe Other  
Landscape Measures:

**Measured  
water savings  
(Af/Year)**

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)  
(Enter the file name and Email file Natalie@cuwcc.org)

(This page intentionally left blank.)

The fields in red are required.

Agency name:

Primary contact:

First name:

Division name  
(Reporting unit)

Last name:

Reporting unit number:

Email:



## WATER SOURCES

Service Area Population:

### Potable Water

Own Supply Source Name	AF/YEAR	Water Supply Type	Water Supply Description
------------------------	---------	-------------------	--------------------------

Imported Supply Source Name	AF/YEAR	Water Supply Type	Water Supply Description
-----------------------------	---------	-------------------	--------------------------

AF/YEAR

Exported Water Name	AF/YEAR	Where Exported?
---------------------	---------	-----------------

# 2010

The fields in red are required.

Agency name:

Primary contact:

First name:



Division name  
(Reporting unit)

Last name:

Reporting unit number:

Email:

Service Area Population:

### Non- Potable Water

If you select Other for type, enter

Own Supply Source Name	AF/YEAR	Water Supply Type	Water Supply Description
------------------------	---------	-------------------	--------------------------

Imported Supply Source Name	AF/YEAR	Water Supply Type	Water Supply Description
-----------------------------	---------	-------------------	--------------------------

AF/YEAR

Exported Water Name	AF/YEAR	Where Exported? such as groundwater recharge, retail, etc.
---------------------	---------	--

# 2010

The fields in red are required.

Agency name:

Primary contact:

First name:



Division name  
(Reporting unit)

Last name:

Reporting unit number:

Email:

# Water Uses 2010

## Potable Water Billed

Make sure to enter numbers in AF/Year.



Customer Type	Meter Accounts	Metered Water Delivered	Un-metered Accounts	Un-metered Water Delivered	Description

## Potable Water Un-Billed

Customer Type	Meter Accounts	Metered Water Delivered	Un-metered Accounts	Un-metered Water Delivered	Description



The fields in red are required.



Agency name:

Reporting unit name  
(District name)

Reporting unit number:

Primary contact:

First name:

Last name:

Email:

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

[Link to FAQs](#)

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

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

# 2010

## BMP 1.1 Operations Practices

Comments:

### Conservation Coordinator

Conservation Coordinator    Yes    No

### Contact Information

First Name

Last Name

Title

Phone

Email

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

### Water Waste Prevention

Water Agency shall do one or more of the following:

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

To document this BMP, provide the following:

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

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

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

Web address(s) URL: comma-separated list

Enter a description:

The fields in red are required.



Agency name:

Reporting unit name  
(District name)

Reporting unit number:

Primary contact:

First name:

Last name:

Email:

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

[Link to FAQs](#)

# 2010 BMP 1.2 Water Loss Control

[View MOU](#)



## AWWA Water Audit

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

Water Audit Validity Score from AWWA spreadsheet



Agency Completed Training In The AWWA Water Audit Method

Yes

No



Agency Completed Training In The Component Analysis Process

Yes

No

Completed/Updated the Component Analysis (at least every 4 years)?

Yes

No



Component Analysis Completed/Updated Date

## Water Loss Performance

Agency Repaired All Reported Leaks & Breaks To The Extent Cost Effective

Yes

No

## Recording Keeping Requirements:

Date/Time Leak Reported

Leak Location

Type of Leaking Pipe Segment or Fitting

Leak Running Time From Report to Repair

Leak Volume Estimate

Cost of Repair

Agency Located and Repaired Unreported Leaks to the Extent Cost Effective

Yes

No

Type of Program Activities Used to Detect Unreported Leaks

## Annual Summary Information

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

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

Comments:

The fields in red are required.

Agency name:  
Reporting unit name  
(District name)

Reporting unit number:

Primary contact:

First name:

Last name:

Email:

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



# BMP 1.3 Metering with Commodity 2010

[Link to FAQs](#)

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

See the coverage requirements for this BMP:

## Implementation

Does your agency have any unmetered service connections? Yes No

If YES, has your agency completed a meter retrofit plan? Yes No

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

Are all new service connections being metered? Yes No

Are all new service connections being billed volumetrically? Yes No

Has your agency completed and submitted electronically to the Council a written plan, policy or program to test, repair and replace meters? Yes No

### Please Fill Out The Following Matrix

Account Type	# Metered Accounts	# Metered Accounts Read	# Metered Accounts Billed by Volume	Billing Frequency Per Year	# of estimated bills/yr
--------------	--------------------	-------------------------	-------------------------------------	----------------------------	-------------------------

Number of CII Accounts with Mixed-use Meters

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

## Feasibility Study

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

### If YES, please fill in the following information:

A. When was the Feasibility Study conducted

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

**File name(s): Email files to [natalie@cuwcc.org](mailto:natalie@cuwcc.org)**

**Web address(s) URL: comma-separated list**

Comments:

The fields in red are required.

Agency name:

Reporting unit name  
(District name)

Reporting unit number:

Primary contact:

First name:

Last name:

Email:

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



2010

## BMP 1.4 Retail Conservation Pricing

[Link to FAQs](#)

[View MOU](#)

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

### Implementation (Water Rate Structure)

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

Rate Structure	Customer Class	Total Revenue Commodity Charges	Total Revenue Customer Meter/Service (Fixed Charges)

### Implementation Option (Conservation Pricing Option)

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

**If CWWA is select, enter the file name and email the spreadsheet to [natalie@cuwcc.org](mailto:natalie@cuwcc.org)**

### Retail Waste Water (Sewer) Rate Structure by Customer Class

Agency Provide Sewer Service Yes No

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

Rate Structure	Customer Class	Total Revenue Commodity Charges	Total Revenue Customer Meter/Service (Fixed Charges)

Comments:

The fields in red are required.



Agency name:

Reporting unit name  
(District name)

Reporting unit number:

Primary contact:

First name:

Last name:

Email:

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

[Link to FAQs](#)

[View MOU](#)

# 2010

## BMP 2.1 Public Outreach - Retail Reporting

### Is a Wholesale Agency Performing Public Outreach?

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

Yes No

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

### Is your agency performing public outreach?

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

#### Public Information Programs List

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

Number of Public Contacts	Public Information Programs

### Contact with the Media

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

Yes No

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

### OR Retail Agency (Contacts with the Media)

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

#### Media Contacts List

Number of Media Contacts	Did at least one contact take place during each quarter of the reporting year?	Media Contact Types

### Is a Wholesale Agency Performing Website Updates?

Did one or more CUWCC wholesale agencies agree to assume your agency's responsibility for meeting the requirements of and for CUWCC reporting of this BMP?

Yes No

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

### Is Your Agency Performing Website Updates?

Enter your agency's URL (website address):

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

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

Yes No

### Public Outreach Annual Budget

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

Category	Amount		Personnel Costs Included? <i>If yes, check the box.</i>	Comments	

**Comments:**

The fields in red are required.



Agency name:

Reporting unit name  
(District name)

Reporting unit number:

Primary contact:

First name:

Last name:

Email:

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

[Link to FAQs](#)

# 2010

## BMP 2.1 Public Outreach Cont'd

[View MOU](#)

### Public Outreach Expenses

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

Expense Category	Expense Amount	Personnel Costs Included?	
If yes, check the check box.			

### Additional Public Information Program

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

Were there additional Public Outreach efforts?

Yes No

### Public Outreach Additional Information

Public Information Programs	Importance	

### Social Marketing Programs

#### Branding

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

Describe the brand, theme or mascot.

#### Market Research

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

Market Research Topic

Brand Message

Brand Mission Statement

### Community Committees

Do you have a community conservation committee? Yes No

Enter the names of the community committees:

### Training

Training Type	# of Trainings	# of Attendees	Description of Other	

### Social Marketing Expenditures

#### Public Outreach Social Marketing Expenses

Expense Category	Expense Amount	Description	

### Partnering Programs - Partners

Name Type of Program

CLCA?

Green Building Programs?

Master Gardeners?

Cooperative Extension?

Local Colleges?

Other

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

### Partnering Programs - Newsletters

Number of newsletters per year

Number of customers per year

**Partnering with Other Utilities**

Describe other utilities your agency partners with, including electrical utilities

**Conservation Gardens**

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

**Landscape contests or awards**

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

Comments:

The fields in red are required.



Agency name:

Reporting unit name  
(District name)

Reporting unit number:

Primary contact:

First name:

Last name:

Email:

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

[Link to FAQs](#)

[View MOU](#)

# 2010

## BMP 2.2 School Education Programs, Retail Agencies

### School Programs

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

Yes No

Enter Wholesaler Names, separated by commas:

Materials meet state education framework requirements?

Description of Materials

Materials distributed to K-6 Students?

Description of materials distributed to K-6 Students

Number of students reached

Materials distributed to 7-12 Students?

Description of materials distributed to 7-12 Students

Number of Distribution

Annual budget for school education program

Description of all other water supplier education programs

### School Program Activities

**Classroom presentations:**

Number of presentations

Number of attendees

**Large group assemblies:**

Number of presentations

Number of attendees

**Children's water festivals or other events:**

Number of presentations

Number of attendees

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

Number of presentations

Number of attendees

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

Description

Number distributed

**Staffing children's booths at events & festivals:**

Number of booths

Number of attendees

**Water conservation contests such as poster and photo:**

Description

Number distributed

**Offer monetary awards/funding or scholarships to students:**

Number Offered

Total Funding

**Teacher training workshops:**

Number of presentations

Number of attendees

**Fund and/or staff student field trips to treatment facilities, recycling facilities, water conservation gardens, etc.:**

Number of tours or field trips

Number of participants

**College internships in water conservation offered:**

Number of internships

Total funding

**Career fairs/workshops:**

Number of presentations

Number of attendees

**Additional program(s) supported by agency but not mentioned above:**

Description

Number of events (if applicable)

Number of participants

**Total reporting period budget expenditures for school education programs (include all agency costs):**

Comments

The fields in red are required.



Agency name:

Reporting unit name  
(District name)

Reporting unit number:

Primary contact:

First name:

Last name:

Email:

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

[Link to FAQs](#)

[View MOU](#)

# 2010

## BMP 3 Residential

**Traditional**  
**(Sections A - D)**

**Flex Track**  
**(All Sections)**

For Traditional Track please answer the fields within the traditional boxes.

For Flex Track option, please answer the fields within the flex track boxes.

You must enter all measured water savings manually. For each measure entered, upload a spreadsheet with sufficient information to show the way that water savings were measured and that the measure was adequately tracked ( i.e., all relevant data was collected ) - in some cases there are specific data points also requested in form which are necessary to show that the measure was implemented as described.

### A) Residential Assistance / Leak Detection

			Total Water Savings AF/YR	Measured Water Savings AF/YR
	Single Family	Multi Family		
<b>Traditional</b>	Total Number of Accounts			
	Total Number of Participants Overall			
	Total Number of Leak Det Surveys			
	Total Number of Showerheads			
	Total Number of Faucet Aerators			
	Total Number of Landscape Water Survey			
	Number of Other Components			
	Description of Other Components Distributed			
If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data) (Enter the file name and Email file to Natalie@cuwcc.org)				

### B) High Efficiency Clothes Washers (HECWs)

<b>Flex Track</b>	<b>Traditional</b>	Number of incentives for HECWs with an AVERAGE Water Factor of 5.0			<b>Measured water savings (AF/Year)</b>
		Are Financial incentives provided for HECWs ?	Yes	No	
		Has your Agency completed a HECW Market Penetration Study (this question does not impact your coverage report, purely informational)	Yes	No	
		HECW Market Penetration Study Documents (Enter the file name and Email file to Natalie@cuwcc.org)			

If you are using your own water-savings measure, send your supporting spreadsheet  
Enter the file name and Email to Natalie@cuwcc.org

### C) WaterSense Specification (WSS) Toilets

(Agency must complete information for at least one coverage option (For Traditional 1, 2, or 3; For Flex Tarck 1, 2, 3, or 4).

You are encouraged to include information on other coverage options, as available.

If seeking credit for additional water savings, you must select Flex Track option)

<b>Traditional</b>	<b>1. Retrofit Resale Ordinance is in Place</b> <b>Yes No</b>															
	If Yes, Choose A File (Enter the file name and Email file to Natalie@cuwcc.org)															
<b>Flex Track</b>	<b>2. A 75% Market Saturation Achieved</b> <b>Yes No</b>															
	If yes, Choose A File (Enter the file name and Email file to Natalie@cuwcc.org)															
	<b>3. WSS Toilets Installed</b>															
	<table><tr><td></td><td>Single Family</td><td>Multi Family</td></tr><tr><td>Number of WSS Toilets Installed</td><td></td><td></td></tr><tr><td>Measured Water Savings AF/YR</td><td></td><td></td></tr></table>		Single Family	Multi Family	Number of WSS Toilets Installed			Measured Water Savings AF/YR								
	Single Family	Multi Family														
Number of WSS Toilets Installed																
Measured Water Savings AF/YR																
	<b>4. Non-WSS Toilets</b>															
	<table><tr><td></td><td>Single Family</td><td></td><td>Multi Family</td><td></td></tr><tr><td>Type of Toilets</td><td>Number of Toilets</td><td>Water Savings</td><td>Number of Toilets</td><td>Water Savings</td></tr><tr><td colspan="5">Description of Other Non-WSS Type of Toilets</td></tr></table>		Single Family		Multi Family		Type of Toilets	Number of Toilets	Water Savings	Number of Toilets	Water Savings	Description of Other Non-WSS Type of Toilets				
	Single Family		Multi Family													
Type of Toilets	Number of Toilets	Water Savings	Number of Toilets	Water Savings												
Description of Other Non-WSS Type of Toilets																
	If you are using your own water-savings measure, send your supporting spreadsheet Enter the file name and Email to Natalie@cuwcc.org															

### D) WSS for New Residential Development

(Agency must complete information for at least one coverage option. You are encouraged to include information on other coverage options, as available. If seeking credit for additional water savings you must select the Flex Track option)

**Traditional**

	Single Family		Multi Family	
	Yes	No	Yes	No
Residential development Rebates	Yes	No	Yes	No
Recognition Programs	Yes	No	Yes	No
Reduced connection Fees	Yes	No	Yes	No
Ordinances	Yes	No	Yes	No

New Development Ordinance  
 (Enter the file name and Email file to Natalie@cuwcc.org)

Number of new Single Family Units built in Service Area

Number of new Multi Family Units built in Service Area

In the following table, enter one row for each incentive typr program you offer

List of Incentive Amount

Incentive Type	Incentive Amount	Number of WSS fixtures installed	Number of Participating		Measured Water Savings	
			Single Family	Multi Family	Single Family	Multi Family

**Flex Track**

If you are using your own water-savings measure, send your supporting spreadsheet  
 Enter the file name and Email to Natalie@cuwcc.org

**For Traditional Option, Stop Here, do not go further.**

**For Flex Track Option, please continue...**

## Flex Track Menu Options

In addition to the measures on the BMP List, the Flex Track menu options may be implemented to meet the savings goal for this BMP. Fill in the water savings measures that your agency has implemented.

**E) High bill contact with single-family and multi-family customers**

**Measured water savings (AF/Year)**

Select the Types of Contact:

Email      Phone      Letter      Others (describe)

Upload sample of contact contents (email, letter, etc. )  
– if applicable; enter the file name and email file to Natalie@cuwcc.org

Who initiated the contact: (Please Specify customer, agencies, or both)

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)  
(Enter the file name and Email file to Natalie@cuwcc.org)

---

**F) Educate residential customers about the behavioral aspects of water conservation**

**Measured water savings (AF/Year)**

**Select types of educational methods used:**

**# Events**

**# Customers Reached**

Workshop

Community Event

Letter

On-Site Visit

Phone Call

Water Survey

Website Hit

Door Hanger

Other (Describe)

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)  
(Enter the file name and Email file to Natalie@cuwcc.org)

---

**G) Notify residential customers of leaks on the customer's side of the meter**

**Measured  
water savings  
(AF/Year)**

Type of Notification (Describe)

How many were sent out?

Upload sample notification method(email, letter, etc. ) – if applicable

(Enter the file name and Email file to Natalie@cuwcc.org)

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)

(Enter the file name and Email file to Natalie@cuwcc.org)

---

**H) Provide bill or surcharge refunds for customers to repair leaks  
on the customer's side of the meter.**

A YUj: fYX  
k UHYf: gUj ]b[ g  
fB: #WUfL

Number of Leaks Repaired

Number of bill adjustments/credits/refunds provided

Describe here or upload a document with a policy description below:

Upload file describing Policy (Enter the file name and Email file to Natalie@cuwcc.org)

If you are using your own water-savings measure, send your supporting spreadsheet

Enter the file name and Email to Natalie@cuwcc.org

---

**I) Provide unique water savings fixtures that are not included in  
the BMP list above**

Fixture or Device

Description

Quantity Installes

Measured water  
savings (AF/YR)

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)  
(Enter the file name and Email file to Natalie@cuwcc.org)

---

### **J) Install residence water use monitors.**

Type of Monitor	6 fUbX	Number Installed	Measured water savings (AF/Year)
Dashboard			
Leak Detector			
Data Logger			

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)  
(Enter the file name and Email file to Natalie@cuwcc.org)

---

### **K) Participate in programs that provide residences with school water conservation kits.**

Number of Kits Distributed			
Kit contents (including model of fixtures)			Measured water savings (AF/Year)
List of what was actually installed in the homes (number of showerheads, aerators etc.).			

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)  
(Enter the file name and Email file to Natalie@cuwcc.org)

---

### **L) Implement an automatic meter reading program for residential customers.**

AMR or AMI	Type of Network		Measured water savings (AF/Year)
Number of connections installed			
Is your agency using these to contact high water-use customers?			

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)  
(Enter the file name and Email file to Natalie@cuwcc.org)

**OTHER Types of Measures.**

Type of Program

Sample / Description

Measured Water Savings (AF/YR)

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)  
(Enter the file name and Email file to [Natalie@cuwcc.org](mailto:Natalie@cuwcc.org))

**Comments**

The fields in red are required.



Agency name:  
Reporting unit name  
(District name)  
Reporting unit number:

Primary contact:  
First name:  
Last name:  
Email:

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

# 2010

[Link to FAQs](#)

[View MOU](#)

## BMP 4 CII

Traditional  
(Section A - L)

Flex Track  
(All Sections)

For Traditional Track please answer the fields within the traditional boxes.

For Flex Track option, please answer the fields within the flex track boxes.

You must enter all measured water savings manually in the summary cells on the right. For each measure entered, upload a spreadsheet with sufficient information to show the way that water savings was measured and that the measure was adequately tracked (i.e., all relevant data was collected) - in some cases there are specific data points also requested in the flex track data entry form which are necessary to show that the measure was implemented as described.

### CII Type of measure implemented

<b>Traditional</b>	<b>A) High - Efficiency Toilets.</b>		<b>Measured water savings (AF/Year)</b>
	Number		
<b>Flex Track</b>	Type of program	Select an Option	<div style="border: 1px solid black; padding: 5px;">           Council's Annual Water Savings 0.041748 AF per device         </div>
	Other type of program		
	Do you accept the Council's default savings number for this measure?	Yes No	
	If not, Please provide the following:		
	Total Measured Water Savings(AF/Year)		
Measure life (years)			
Lifetime water savings (years)			
If you are using your own water-savings measure, send your supporting spreadsheet Enter the file name and Email to <a href="mailto:Natalie@cuwcc.org">Natalie@cuwcc.org</a>			

### B) High - Efficiency Urinals ( 0.5 gpf )

<b>Flex Track</b>	<b>Traditional</b> Number Type of program Other type of program	<b>Measured water savings (AF/Year)</b>
	<p>Do you accept the Council's default savings number for this measure?      Yes   No</p> <p>If not, Please provide the following</p> <p>Total Measured Water Savings(AF/Year)</p> <p>Measure life (years)</p> <p>Lifetime water savings (years)</p> <p>If you are using your own water-savings measure, send your supporting spreadsheet Enter the file name and Email to <a href="mailto:Natalie@cuwcc.org">Natalie@cuwcc.org</a></p>	
		Council's Annual Water Savings 0.069086 AF per device

### C) Ultra Low Volume Urinals (0.125 gpf)

<b>Flex Track</b>	<b>Traditional</b> Number Type of program Other type of program	<b>Measured water savings (AF/Year)</b>
	<p>Do you accept the Council's default savings number for this measure?      Yes   No</p> <p>If not, Please provide the following</p> <p>Total Measured Water Savings(AF/Year)</p> <p>Measure life (years)</p> <p>Lifetime water savings (years)</p> <p>If you are using your own water-savings measure, send your supporting spreadsheet Enter the file name and Email to <a href="mailto:Natalie@cuwcc.org">Natalie@cuwcc.org</a></p>	
		Council's Annual Water Savings 0.080603 AF per device

### D) Zero Consumption Urinals (0.0 gpf)

<b>Flex Track</b>	<b>Traditional</b> Number Type of program Other type of program	<b>Measured water savings (AF/Year)</b>
	<p>Do you accept the Council's default savings number for this measure?      Yes   No</p>	

**Flex Track**

If not, Please provide the following:  
Total Measured Water Savings(AF/Year)  
Measure life (years)  
Lifetime water savings (years)  
If you are using your own water-savings measure, send your supporting spreadsheet  
Enter the file name and Email to Natalie@cuwcc.org

Council's Annual Water Savings 0.0921146  
AF per device

### E) Commercial High - Efficiency Single Load Clothes Washers

**Traditional**

Number  
Type of program  
Other type of program

**Measured water savings (AF/Year)**

**Flex Track**

Do you accept the Council's default savings number for this measure ?      Yes   No  
If not , Please provide the following:  
Total Measured Water Savings(AF/Year)  
Measure life (years)  
Lifetime water savings (years)  
If you are using your own water-savings measure, send your supporting spreadsheet  
Enter the file name and Email to Natalie@cuwcc.org

Council's Annual Water Savings 0.116618  
AF per device

### F) Cooling Tower Conductivity Controllers.

**Traditional**

Number  
Type of program  
Other type of program

**Measured water savings (AF/Year)**

**Flex Track**

Do you accept the Council's default savings number for this measure ?      Yes   No  
If not, Please provide the following:  
Total Measured Water Savings(AF/Year)  
Measure life (years)  
Lifetime water savings (years)  
If you are using your own water-savings measure, send your supporting spreadsheet  
Enter the file name and Email to Natalie@cuwcc.org

Council's Annual Water Savings 1.032250  
AF per device

### G) Cooling Tower pH Controllers

<b>Traditional</b>	Number	<b>Measured water savings (AF/Year)</b>	
	Type of program		
	Other type of program		
<b>Flex Track</b>	Do you accept the Council's default savings number for this measure ?	Yes No	<b>Council's Annual Water Savings 3.981543 AF per device</b>
	If not, Please provide the following:		
	Total Measured Water Savings(AF/Year)		
	Measure life (years)		
	Lifetime water savings (years)		
	If you are using your own water-savings measure, send your supporting spreadsheet Enter the file name and Email to Natalie@cuwcc.org		

### H) Connectionless Food Steamers.

<b>Traditional</b>	Number	<b>Measured water savings (AF/Year)</b>	
	Type of program		Select an Option
	Other type of program		
<b>Flex Track</b>	Do you accept the Council's default savings number for this measure ?	Yes No	<b>Council's Annual Water Savings 0.25 AF per Steamer Compartment</b>
	If not, Please provide the following:		
	Total Measured Water Savings(AF/Year)		
	Measure life (years)		
	Lifetime water savings (years)		
	If you are using your own water-savings measure, send your supporting spreadsheet Enter the file name and Email to Natalie@cuwcc.org		

### I) Medical Equipment Steam Sterilizers

<b>Flex Track</b>	<b>Traditional</b>	Number	<b>Measured water savings (AF/Year)</b>	
		Type of program		Select an Option
		Other type of program		

**Flex Track**

Do you accept the Council's default savings number for this measure? Yes No

Council's Annual Water Savings 1.538 AF per device

If not, Please provide the following:

Total Measured Water Savings(AF/Year)

Measure life (years)

Lifetime water savings (years)

If you are using your own water-savings measure, send your supporting spreadsheet Enter the file name and Email to Natalie@cuwcc.org

### J) Water - Efficient Ice Machines.

**Traditional**

Number  
Type of program Select an Option  
Other type of program

**Measured water savings (AF/Year)**

**Flex Track**

Do you accept the Council's default savings number for this measure ? Yes No  
If not, Please provide the following:

Council's Annual Water Savings 0.0834507 AF per device

Total Measured Water Savings(AF/Year)

Measure life (years)

Lifetime water savings (years)

If you are using your own water-savings measure, send your supporting spreadsheet Enter the file name and Email to Natalie@cuwcc.org

### K) Pressurized Water Brooms.

**Traditional**

Number  
Type of program Select an Option  
Other type of program

**Measured water savings (AF/Year)**

**Flex Track**

Do you accept the Council's default savings number for this measure? Yes No

Council's Annual Water Savings 0.1534 AF per device

**Flex Track**

If not, Please provide the following:

Total Measured Water Savings(AF/Year)

Measure life (years)

Lifetime water savings (years)

If you are using your own water-savings measure, send your supporting spreadsheet  
Enter the file name and Email to Natalie@cuwcc.org

### L) Dry Vacuum Pumps.

**Traditional**

Number

Type of program      Select an Option

Other type of program

**Measured water savings (AF/Year)**

**Flex Track**

Do you accept the Council's default savings number for this measure?      Yes   No

If not, Please provide the following:

Total Measured Water Savings(AF/Year)

Measure life (years)

Lifetime water savings (years)

If you are using your own water-savings measure, send your supporting spreadsheet  
Enter the file name and Email to Natalie@cuwcc.org

Council's Annual Water Savings 0.064 AF per device

**Traditional Reporting Stop Here, Do not continue**

**Flex Track Reporting Please Continue...**

### M) Industrial Process Water Use Reduction.

Number

Type of program

Other type of program

Type of Process  
Water Reduced

If re-using water, what was the secondary use of the water?  
(such as pre-rinse cycle or landscaping)

**Measured water savings (AF/Year)**

Total Measured Water Savings(AF/Year)

Measure life (years)

Lifetime water savings (years)

If you are using your own water-savings measure, send your supporting spreadsheet  
Enter the file name and Email to [Natalie@cuwcc.org](mailto:Natalie@cuwcc.org)

## **N) Commercial Laundry Retrofits.**

Number of  
customers

**Measured  
water savings  
(AF/Year)**

hotels  
Type of  
customer campuses  
prisons  
laundromats

Lease / own  
machines Lease Own Machines Both

Type of program Select an Option

Other type of  
program

Total Measured Water Savings(AF/Year)

Measure life (years)

Lifetime water savings (years)

If you are using your own water-savings measure, send your supporting spreadsheet  
Enter the file name and Email to [Natalie@cuwcc.org](mailto:Natalie@cuwcc.org)

## **O) Industrial Laundry Retrofits.**

**Measured  
water savings  
(AF/Year)**

Total Number of  
customers

Total Volume of  
laundry  
processed  
annually

Select an Option

Type of program Select an Option

Other type of  
program

Total Measured Water Savings(AF/Year)

Measure life (years)

Lifetime water savings (years)

If you are using your own water-savings measure, send your supporting spreadsheet  
Enter the file name and Email to [Natalie@cuwcc.org](mailto:Natalie@cuwcc.org)

### **P) Filter Upgrades (for pools, spas, and fountains).**

Number of pools  
upgraded

Number of spas  
upgraded

Number of  
fountains  
upgraded

Type of program      Select an Option

Other type of  
program

**Measured  
water savings  
(AF/Year)**

Total Measured Water Savings(AF/Year)

Measure life (years)

Lifetime water savings (years)

If you are using your own water-savings measure, send your supporting spreadsheet  
Enter the file name and Email to [Natalie@cuwcc.org](mailto:Natalie@cuwcc.org)

### **Q) Car Wash Reclamation Systems**

**Measured  
water savings  
(AF/Year)**

Total Number of program participants (accounts)  
Total Number of vehicles washed annually

Conveyor

In-bay

Do you accept the Council's default savings number for this measure?

Yes No

Council's Annual Water Savings 0.00004607 (or 15 gals) per vehicle
--

If not, Please provide the following:

Total Measured Water Savings(AF/Year)

Measure life (years)

Lifetime water savings (years)

If you are using your own water-savings measure, send your supporting spreadsheet Enter the file name and Email to [Natalie@cuwcc.org](mailto:Natalie@cuwcc.org)

## R) Wet Cleaning.

Brief description of program

**Measured water savings (AF/Year)**

Total Measured Water Savings(AF/Year)

Measure life (years)

Lifetime water savings (years)

If you are using your own water-savings measure, send your supporting spreadsheet Enter the file name and Email to [Natalie@cuwcc.org](mailto:Natalie@cuwcc.org)

## S) Water Audits (To avoid double counting, do not include device/replacement water savings.)

Number of water audits by type of business

**Measured water savings (AF/Year)**

Auto

Food

Health

Hotels

Manufacturing

Membership

Multi-use

Office

Religious

Restaurant

Retail/  
Wholesale

School

Other (with  
description)

Description of  
Other

Total Measured Water Savings(AF/Year)

Measure life (years)

Lifetime water savings (years)

If you are using your own water-savings measure, send your supporting spreadsheet  
Enter the file name and Email to [Natalie@cuwcc.org](mailto:Natalie@cuwcc.org)

**T) Clean In Place (CIP) Technology  
(such as bottle sterilization in a beverage processing plant)**

**Measured  
water savings  
(AF/Year)**

Number of  
customers

Type of program

Other type of  
program

Total Measured Water Savings(AF/Year)

Measure life (years)

Lifetime water savings (years)

If you are using your own water-savings measure, send your supporting spreadsheet  
Enter the file name and Email to [Natalie@cuwcc.org](mailto:Natalie@cuwcc.org)

### **U) Waterless Wok**

Number

Type of program

**Measured  
water savings  
(AF/Year)**

Total Measured Water Savings(AF/Year)

Measure life (years)

Lifetime water savings (years)

If you are using your own water-savings measure, send your supporting spreadsheet  
Enter the file name and Email to [Natalie@cuwcc.org](mailto:Natalie@cuwcc.org)

### **V) Alternative On-site Water Sources (For Rain Water Harvesting, commercial rain barrels are excluded. For Foundation Drain Water, exclude permeable paving.)**

**Measured  
water savings  
(AF/Year)**

Select type	Number	Description
-------------	--------	-------------

Cooling Condensate		
-----------------------	--	--

Foundation Drain Water		
------------------------------	--	--

Gray Water		
---------------	--	--

Storm Water		
----------------	--	--

Rain Water		
---------------	--	--

Pond and Water Feature Recycling		
---	--	--

Total Measured Water Savings(AF/Year)

Measure life (years)

Lifetime water savings (years)

If you are using your own water-savings measure, send your supporting spreadsheet  
Enter the file name and Email to Natalie@cuwcc.org

### W) Sub - metering

**Measured  
water savings  
(AF/Year)**

Select type      Number      Description

Condominiums

    Apartments

    Mobile  
Homes

Do you accept the Council's default savings numbers for this measure?      Yes    No

If not, Please provide the following:

Total Measured Water Savings(AF/Year)

Measure life (years)

Lifetime water savings (years)

If you are using your own water-savings measure, send your supporting spreadsheet  
Enter the file name and Email to Natalie@cuwcc.org

Council's Annual Water Savings Apartments & Condos=0.024419 AF/YR Mobile Home = 0.056774 AF/Yr
--

### X) High Efficiency Showerheads

**Measured  
water savings  
(AF/Year)**

Number

Type of program

Other type of  
program

Total Measured Water Savings(AF/Year)

Measure life (years)

Lifetime water savings (years)

If you are using your own water-savings measure, send your supporting spreadsheet  
Enter the file name and Email to Natalie@cuwcc.org

## Y) Faucet Flow Restrictors

**Measured  
water savings  
(AF/Year)**

Number

Type of program

Other type of  
program

Total Measured Water Savings(AF/Year)

Measure life (years)

Lifetime water savings (years)

If you are using your own water-savings measure, send your supporting spreadsheet  
Enter the file name and Email to Natalie@cuwcc.org

## Z) Water Efficient Dishwashers

**Measured  
water savings  
(AF/Year)**

Select type

Number

Rack

Conveyor

Other

Description  
of Other

Type of  
program

Select an Option

Other type of  
program

Total Measured Water Savings(AF/Year)

Measure life (years)

Lifetime water savings (years)

If you are using your own water-savings measure, send your supporting spreadsheet  
Enter the file name and Email to [Natalie@cuwcc.org](mailto:Natalie@cuwcc.org)

### **AA) Hot Water on Demand**

**Measured  
water savings  
(AF/Year)**

Number

Type of program

Other type of  
program

Total Measured Water Savings(AF/Year)

Measure life (years)

Lifetime water savings (years)

If you are using your own water-savings measure, send your supporting spreadsheet  
Enter the file name and Email to [Natalie@cuwcc.org](mailto:Natalie@cuwcc.org)

### **BB) Pre-rinse Spray Valves of 1.3 gpm (gallons per minute) or less**

**Measured  
water savings  
(AF/Year)**

Number

Type of program

Other type of  
program

Total Measured Water Savings(AF/Year)

Measure life (years)

Lifetime water savings (years)

If you are using your own water-savings measure, send your supporting spreadsheet  
Enter the file name and Email to Natalie@cuwcc.org

### **CC) Central Flush Systems**

**Measured  
water savings  
(AF/Year)**

Number

Type of program

Other type of  
program

Total Measured Water Savings(AF/Year)

Measure life (years)

Lifetime water savings (years)

If you are using your own water-savings measure, send your supporting spreadsheet  
Enter the file name and Email to Natalie@cuwcc.org

### **Other Measures chosen by the Agency**

**Measured  
water savings  
(AF/Year)**

Description of  
program

Sample (if  
applicable)

Total Measured Water Savings(AF/Year)

Measure life (years)

Lifetime water savings (years)

If you are using your own water-savings measure, send your supporting spreadsheet  
Enter the file name and Email to Natalie@cuwcc.org



The fields in red are required.

Agency name:  
Reporting unit name  
(District name)  
Reporting unit number:

Primary contact:  
First name:  
Last name:  
Email:

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

[Link to FAQs](#)  
[View MOU](#)

# 2010

## BMP 5 Landscape

### Traditional

### Flex Track

For Traditional Track please answer the fields within the traditional boxes.

For Flex Track option, please answer the fields within the flex track boxes.

You must enter all measured water savings manually. For each measure entered, upload a spreadsheet with sufficient information to show the way that water savings were measured and that the measure was adequately tracked ( i.e., all relevant data was collected ) - in some cases there are specific data point also requested in form which are necessary to show that the measure was implemented as described.

### Accounts with Dedicated Irrigation Meters

<b>Flex Track</b>	<b>Traditional</b>	<p>Number of dedicated irrigation meter accounts</p> <p>Number of dedicated irrigation meter accounts with water budgets</p> <p>Aggregate water use for dedicated non-recreational landscape accounts with budgets</p> <p>Aggregate acreage assigned water budgets for dedicated non-recreational landscape accounts with budgets</p> <p>Preserved water use records and budgets for customers with dedicated landscape irrigation accounts for at least four years <span style="float: right;">Yes   No</span></p>
	<p>Water Savings from Accounts with dedicated irrigation meters with water budgets (Acre Feet)</p> <p>If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data) (Enter the file name and Email file to Natalie@cuwcc.org)</p>	

### Technical Assistance

<b>Flex Track</b>	<b>Traditional</b>	<p>Number of Accounts 20% over-budget</p> <p>Number of accounts 20% over-budget offered technical assistance</p> <p>Number of accounts 20% over-budget accepting technical assistance</p>	<b>Measured water savings (AF/Year)</b>
	<p>If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data) (Enter the file name and Email file to Natalie@cuwcc.org)</p>		

**Irrigation Water Use Surveys for Mixed-use and Un-metered Accounts**

<b>Traditional</b>	Number of mixed use and un-metered accounts Number of irrigation water use surveys offered (cumulative, all years) Number of irrigation water use surveys accepted (cumulative) Can your Agency estimate the amount of landscape acreage for mixed use and Un-metered accounts <span style="float: right;">Yes    No</span> If Yes, Aggregate acreage for mixed use and Un-metered accounts	<b>Measured water savings (AF/Year)</b>
	Estimated water demand from acreage for mixed use and Un-metered accounts Annual water savings by customers receiving irrigation water savings surveys and implementing recommendations If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data) (Enter the file name and Email file to Natalie@cuwcc.org)	

**Financial Incentives**

<b>Traditional</b>	Have you implemented and maintained an irrigation equipment retrofit incentive program? <span style="float: right;">Yes    No</span> Number of incentives      Dollar value of incentives      Incentive Types	<b>Measured Water Savings (AF/YR)</b>
	If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data) (Enter the file name and Email file to Natalie@cuwcc.org)	

**Traditional Reporting Stop Here, Do not continue  
 Flex Track Reporting Please Continue...**

# Landscape Flex Track Measure Types

---

## 1. Monitor and report on landscape water use

**A) Measure landscapes and develop water budgets for customers with dedicated landscape meters. Provide timely water use reports with comparisons of water use to budget that provide customers the information they need to adjust irrigation schedules (such as faxes, twitter, etc. not included in the previous sections).**

**Measured  
water savings  
(AF/Year)**

Enter the Number of sites with:

Dedicated Mixed Meters

Water Budgets

Landscape Measurements

Others (describe)

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)  
(Enter the file name and Email file to [Natalie@cuwcc.org](mailto:Natalie@cuwcc.org))

---

**B) Measure landscapes and develop water budgets for customers with Mixed Use meters. Provide timely water use reports with comparisons of water use to budget that provide customers the information they need to adjust irrigation schedules.**

**Measured  
water savings  
(AF/Year)**

Enter the Number of sites with:

Dedicated Mixed Meters

Water Budgets

Landscape Measurements

Others (describe)

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)  
(Enter the file name and Email file to [Natalie@cuwcc.org](mailto:Natalie@cuwcc.org))

---

**C) Establish agency-wide water budget. (Note that: ETo based water budget in the MWELo changed in 2010 from .8ETo to .7ETo.)**

Agency-wide total irrigated area  
Per-2010

(Acres)

**Measured  
water savings  
(AF/Year)**

Agency-wide total irrigated area  
Post-2010

(Acres)

Amount of Water Used

(AF/Acre)

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)  
(Enter the file name and Email file to Natalie@cuwcc.org)

---

**D) Establish agency-wide, sector-based irrigation goal to reduce water use, based on seasonality.**

Number of minimum irrigation goal	(AF/Acre)	<b>Measured water savings (AF/Year)</b>
Amount of Water Used per Period	(AF/Period)	

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)  
(Enter the file name and Email file to Natalie@cuwcc.org)

---

**2. Provide technical landscape resources and training**

**A) Upon customer requests, provide landscape irrigation management and landscape design information and resources: provide assistance, answer customer questions, respond to run-off and high-bill calls.**

Enter the Number of:

Contacts In Person

Contacts over the phone

Contacts via Email

**Measured water savings (AF/Year)**

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)  
(Enter the file name and Email file to Natalie@cuwcc.org)

---

**B) Perform landscape & irrigation audits: including irrigation scheduling, plant information, and landscape area measurement.**

Enter the Number of:

Audits conducted per year

Measurement of square footage of Turf areas

Measurement of square footage of NON Turf areas

**Measured water savings (AF/Year)**

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)  
(Enter the file name and Email file to Natalie@cuwcc.org)

---

**C) Sponsor, co-sponsor, promote, or support landscape workshops, training, presentations and other technical educational events for homeowners and professionals: design, installation, maintenance, water management.**

Enter the Number of:

Events

Participants

List Type or  
Title of Events

**Measured  
water savings  
(AF/Year)**

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)  
(Enter the file name and Email file to Natalie@cuwcc.org)

---

**D) Establish Time-of-Day Irrigation Restrictions.**

Describe Restrictions:

Yes

No

**Measured  
water savings  
(AF/Year)**

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)  
(Enter the file name and Email file to Natalie@cuwcc.org)

---

**E) Establish Day-of-Week Irrigation Restrictions.**

Yes

No

Describe Restrictions:

**Measured  
water savings  
(AF/Year)**

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)  
(Enter the file name and Email file to Natalie@cuwcc.org)

---

**3. Provide incentives**

**A) Establish Landscape budget-based rates.**

Yes

No

Describe Rates:

**Measured  
water savings  
(AF/Year)**

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)  
(Enter the file name and Email file to [Natalie@cuwcc.org](mailto:Natalie@cuwcc.org))

---

**B) Provide incentives for conversions from mixed-use meters to dedicated landscape meters.**

Number of Conversions:

**Measured  
water savings  
(AF/Year)**

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)  
(Enter the file name and Email file to [Natalie@cuwcc.org](mailto:Natalie@cuwcc.org))

---

**C) Provide incentives for installing sub-meters to separate landscape water use**

Number of meters installed:

**A YUg fYX  
k UHYf'gUJ ]b[ g  
fB: #WUFL**

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)  
(Enter the file name and Email file to [Natalie@cuwcc.org](mailto:Natalie@cuwcc.org))

---

**D) Provide incentives for irrigation equipment upgrades that improve distribution uniformity, irrigation efficiency, or scheduling capabilities.**

Select types of irrigation  
equipment upgrades:

Number of devices  
installed

**Measured  
water savings  
(AF/Year)**

Controllers

Emitters

Soil moisture sensors

Pressure Regulators

Rain shut off devices

Other (describe)

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)  
(Enter the file name and Email file to Natalie@cuwcc.org)

---

**E) Provide incentives for the reduction of water use over an irrigated area, or reduction in the size of the irrigated area due to replacement of turf or other high water-using plants with low water-using plants, artificial turf, or permeable surfaces.**

Acreage of live turf converted to low water-using plants, artificial turf, or permeable surfaces:

Acres

**Measured  
water savings  
(AF/Year)**

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)  
(Enter the file name and Email file to Natalie@cuwcc.org)

---

**F) Provide incentives for conversions from potable to recycled water.**

Number of  
Conversions:

Number of  
Incentives:

Funds Invested:

**Measured  
water savings  
(AF/Year)**

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)  
(Enter the file name and Email file to Natalie@cuwcc.org)

---

**G) Provide incentives for the use of alternative sources of water in the landscape (i.e. gray water, rainwater, cisterns, etc.)**

Number of  
Conversions:

Number of  
Incentives:

Funds Invested:

**Measured  
water savings  
(AF/Year)**

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)  
(Enter the file name and Email file to Natalie@cuwcc.org)

---

#### 4. Participate in local and regional planning and regulatory activities

- A) Collaborate with planning agencies at the local and regional level, other water suppliers in the area and stakeholders in response to state or federal requirements such as the State Model Water Efficient Landscape Ordinance and AB 1881. Participate in the development, review, implementation, and enforcement of requirements for new developments. Provide water use data to planning agencies.

**Measured  
water savings  
(AF/Year)**

Public Information Programs List

Agency Type

Describe Involvement

If Ohter: Enter Name

Actions

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)  
(Enter the file name and Email file to [Natalie@cuwcc.org](mailto:Natalie@cuwcc.org))

---

- B) Establish or participate in a water conservation advisory committee or other community outreach effort to drive market transformation and exchange information about landscape water conservation with developers, community-based organizations, homeowners associations, residential customers, landscape professionals, educators, other water suppliers in region.

Yes No

Describe Involvement:

**Measured  
water savings  
(AF/Year)**

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)  
(Enter the file name and Email file to Natalie@cuwcc.org)

---

**C) Participate in regional efforts: integrated water resource management, watershed management, NPDES permit agencies, etc.**

Yes      No

**Measured  
water savings  
(AF/Year)**

Describe Involvement:

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)  
(Enter the file name and Email file to Natalie@cuwcc.org)

---

**5. Develop a holistic approach to landscape water use efficiency**

**A) Develop and implement a comprehensive landscape water conservation program for all customers. Target marketing efforts to those most likely to result in benefits to both customer and Agency.**

Describe Program:

**Measured  
water savings  
(AF/Year)**

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)  
(Enter the file name and Email file to Natalie@cuwcc.org)

---

**6. Other Measures**

**A) Other Landscape Measures.**

Describe Other  
Landscape Measures:

**Measured  
water savings  
(Af/Year)**

If there is Water Savings in this measure, upload the Methodology Spreadsheet (backup data)  
(Enter the file name and Email file Natalie@cuwcc.org)