

Appendix D
City of Sunnyvale
2010 Urban Water Management Plan
Projected Demands Provided to Wholesale Agencies

**Twenty Year Water Supply Forecast
Summary
FY 2012 - 2031**

Fiscal Year	Actual 2009	Actual 2010	Plan 2011	Plan 2012	Plan 2013	Plan 2014	Plan 2015	Plan 2016	Plan 2017	Plan 2018	Plan 2019	Plan 2020	Plan 2021
Citywide Projection													
Total Demand (AF/YR)	24,076	21,475	21,475	21,690	21,907	21,929	21,973	22,038	22,127	22,237	22,371	22,527	22,708
Growth		-10.8%	0.0%	1.0%	1.0%	0.1%	0.2%	0.3%	0.4%	0.5%	0.6%	0.7%	0.8%
San Francisco Water Supply (SFPUC)													
Quantity (Acre Feet)	11,894	10,954	10,003	10,003	10,003	10,003	10,003	10,003	10,003	10,003	10,003	10,003	10,003
Cost (per Acre Foot)	\$ 623	\$ 719	\$ 836	\$ 1,185	\$ 1,263	\$ 1,363	\$ 1,464	\$ 1,668	\$ 1,773	\$ 1,891	\$ 1,891	\$ 1,921	\$ 1,943
Meter Charge	\$ 271,368	\$ 252,329	\$ 275,268	\$ 275,268	\$ 275,268	\$ 275,268	\$ 275,268	\$ 330,322	\$ 330,322	\$ 330,322	\$ 330,322	\$ 330,322	\$ 396,386
Total Cost	\$ 7,361,313	\$ 8,152,989	\$ 8,641,297	\$ 12,648,268	\$ 13,058,435	\$ 14,093,872	\$ 15,074,993	\$ 17,073,296	\$ 18,011,326	\$ 19,016,248	\$ 18,861,285	\$ 19,021,307	\$ 19,157,358
Percent Change in Cost		10.8%	6.0%	46.4%	3.2%	7.9%	7.0%	13.3%	5.5%	5.6%	-0.8%	0.8%	0.7%
Santa Clara Valley Water District Supply (SCVWD)													
Quantity (Acre Feet)	9,330	7,430	10,409	9,889	9,889	9,889	9,570	9,610	9,674	9,759	9,868	9,999	10,155
Cost (per Acre Foot)	\$ 520	\$ 520	\$ 520	\$ 569	\$ 625	\$ 685	\$ 750	\$ 820	\$ 895	\$ 970	\$ 1,030	\$ 1,085	\$ 1,130
Treated Water Charge (per Acre Foot)	\$ 100	\$ 100	\$ 100	\$ 100	\$ 100	\$ 100	\$ 100	\$ 100	\$ 100	\$ 100	\$ 105	\$ 105	\$ 105
Total Cost	\$ 5,784,805	\$ 4,609,607	\$ 6,453,828	\$ 6,615,741	\$ 7,169,525	\$ 7,762,635	\$ 8,134,130	\$ 8,841,644	\$ 9,625,268	\$ 10,442,418	\$ 11,199,832	\$ 11,899,153	\$ 12,540,815
Percent Change in Cost		-20.3%	40.0%	2.5%	8.4%	8.3%	4.8%	8.7%	8.9%	8.5%	7.3%	6.2%	5.4%
City Wells													
Quantity (Acre Feet)	937	1,762	1,200	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Cost (per Acre Foot)	\$ 520	\$ 520	\$ 520	\$ 569	\$ 625	\$ 685	\$ 750	\$ 820	\$ 895	\$ 970	\$ 1,030	\$ 1,085	\$ 1,130
Power Cost (per Acre Foot)	\$ 82	\$ 203	\$ 190	\$ 194	\$ 198	\$ 202	\$ 206	\$ 210	\$ 214	\$ 218	\$ 223	\$ 227	\$ 234
Total Cost	\$ 554,348	\$ 916,100	\$ 852,000	\$ 762,725	\$ 822,512	\$ 886,630	\$ 955,662	\$ 1,029,775	\$ 1,108,971	\$ 1,188,250	\$ 1,252,615	\$ 1,312,068	\$ 1,363,880
Percent Change in Cost		65.3%	-7.0%	-10.5%	7.8%	7.8%	7.8%	7.8%	7.7%	7.1%	5.4%	4.7%	3.9%
Total Potable Water Demand (Acre Feet)	22,161	20,146	21,612	20,892	20,892	20,892	20,573	20,613	20,677	20,762	20,871	21,002	21,158
Total Potable Water Cost	\$ 13,700,466	\$ 13,678,696	\$ 15,947,125	\$ 20,026,734	\$ 21,050,472	\$ 22,743,137	\$ 24,164,785	\$ 26,944,716	\$ 28,745,565	\$ 30,646,917	\$ 31,313,732	\$ 32,232,527	\$ 33,062,053
Percent Change in Total Cost		-0.2%	16.6%	25.6%	5.1%	8.0%	6.3%	11.5%	6.7%	6.6%	2.2%	2.9%	2.6%
City Produced Recycled Water													
Quantity (Acre Feet)	1,915	1,329	1,100	798	1,015	1,037	1,400	1,425	1,450	1,475	1,500	1,525	1,550
Cost (estimated per Acre Foot) ¹	\$ 450	\$ 459	\$ 468	\$ 478	\$ 487	\$ 497	\$ 507	\$ 517	\$ 527	\$ 538	\$ 549	\$ 560	\$ 571
Total Cost	\$ 861,750	\$ 610,011	\$ 514,998	\$ 381,080	\$ 494,401	\$ 515,219	\$ 709,482	\$ 736,595	\$ 764,508	\$ 793,243	\$ 822,821	\$ 853,266	\$ 884,599

1. Recycled water cost is estimated based on FY 2010 production. Cost is estimated based on the incremental cost of producing recycled water plus distribution and doesn't factor in additional overhead or other costs.

**Twenty Year Water Supply Forecast
Summary
FY 2012 - 2031**

Fiscal Year	Plan 2022	Plan 2023	Plan 2024	Plan 2025	Plan 2026	Plan 2027	Plan 2028	Plan 2029	Plan 2030	Plan 2031
Citywide Projection										
Total Demand (AF/YR)	22,912	23,141	23,396	23,676	23,984	24,320	24,685	25,080	25,506	25,968
Growth	0.9%	1.0%	1.1%	1.2%	1.3%	1.4%	1.5%	1.6%	1.7%	1.8%
San Francisco Water Supply (SFPUC)										
Quantity (Acre Feet)	10,003	10,003	10,003	10,003	10,003	10,003	10,003	10,003	10,003	10,003
Cost (per Acre Foot)	\$ 1,959	\$ 1,975	\$ 1,992	\$ 2,008	\$ 2,025	\$ 2,042	\$ 2,059	\$ 2,076	\$ 2,093	\$ 2,110
Meter Charge	\$ 396,386	\$ 396,386	\$ 396,386	\$ 396,386	\$ 475,663	\$ 475,663	\$ 475,663	\$ 475,663	\$ 475,663	\$ 475,663
Total Cost	\$ 19,147,362	\$ 19,151,337	\$ 19,156,919	\$ 19,162,503	\$ 19,247,365	\$ 19,252,952	\$ 19,258,540	\$ 19,264,130	\$ 19,269,722	\$ 19,275,316
Percent Change in Cost	-0.1%	0.0%	0.0%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%
Santa Clara Valley Water District Supply (SCVWD)										
Quantity (Acre Feet)	10,334	10,538	10,768	11,023	11,306	11,617	11,957	12,327	12,728	13,165
Cost (per Acre Foot)	\$ 1,164	\$ 1,199	\$ 1,235	\$ 1,272	\$ 1,310	\$ 1,349	\$ 1,390	\$ 1,431	\$ 1,474	\$ 1,519
Treated Water Charge (per Acre Foot)	\$ 120	\$ 120	\$ 120	\$ 125	\$ 125	\$ 125	\$ 130	\$ 130	\$ 130	\$ 130
Total Cost	\$ 13,267,661	\$ 13,897,684	\$ 14,587,669	\$ 15,397,607	\$ 16,223,998	\$ 17,126,492	\$ 18,171,219	\$ 19,247,390	\$ 20,420,666	\$ 21,703,533
Percent Change in Cost	5.8%	4.7%	5.0%	5.6%	5.4%	5.6%	6.1%	5.9%	6.1%	6.3%
City Wells										
Quantity (Acre Feet)	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000
Cost (per Acre Foot)	\$ 1,164	\$ 1,199	\$ 1,235	\$ 1,272	\$ 1,310	\$ 1,349	\$ 1,390	\$ 1,431	\$ 1,474	\$ 1,519
Power Cost (per Acre Foot)	\$ 241	\$ 248	\$ 256	\$ 263	\$ 271	\$ 279	\$ 288	\$ 296	\$ 305	\$ 314
Total Cost	\$ 1,404,796	\$ 1,446,940	\$ 1,490,348	\$ 1,535,059	\$ 1,581,110	\$ 1,628,544	\$ 1,677,400	\$ 1,727,722	\$ 1,779,554	\$ 1,832,940
Percent Change in Cost	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Total Potable Water Demand (Acre Feet)	21,337	21,541	21,771	22,026	22,309	22,620	22,960	23,330	23,731	24,168
Total Potable Water Cost	\$ 33,819,818	\$ 34,495,961	\$ 35,234,936	\$ 36,095,168	\$ 37,052,473	\$ 38,007,988	\$ 39,107,159	\$ 40,239,242	\$ 41,469,942	\$ 42,811,789
Percent Change in Total Cost	2.3%	2.0%	2.1%	2.4%	2.7%	2.6%	2.9%	2.9%	3.1%	3.2%
City Produced Recycled Water										
Quantity (Acre Feet)	1,575	1,600	1,625	1,650	1,675	1,700	1,725	1,750	1,775	1,800
Cost (estimated per Acre Foot) ¹	\$ 588	\$ 605	\$ 624	\$ 642	\$ 662	\$ 681	\$ 702	\$ 723	\$ 745	\$ 767
Total Cost	\$ 925,832	\$ 968,744	\$ 1,013,397	\$ 1,059,857	\$ 1,108,193	\$ 1,158,475	\$ 1,210,777	\$ 1,265,174	\$ 1,321,746	\$ 1,380,573

1. Recycled water cost is estimated based on FY 2010 production. Cost is estimated based on the incremental cost of producing recycled water plus distribution and doesn't factor in additional overhead or other costs.



**ANTICIPATED MONTHLY WATER DELIVERY SCHEDULE
(In Acre-Feet)**

FCE 264 (1-29-10)

Contractor's Name:		CITY OF SUNNYVALE				
Month	Anticipated Monthly Schedules					
	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
July	1290	1139	1139	1139	1080	1080
August	1290	1139	1139	1139	1080	1080
September	1290	1139	1139	1139	1080	1080
October	816	804	804	804	780	780
November	792	804	804	804	756	756
December	792	804	804	804	756	756
January	792	804	804	804	756	756
February	792	804	804	804	756	756
March	792	804	804	804	756	756
April	815	804	804	804	779	779
May	815	804	804	804	779	779
June	1290	1139	1139	1139	1080	1080
Total	11,566	10,988	10,988	10,988	10,438	10,438
Peak day deliver (Million Gallons)	18.59	17.66	*17.61	17.66	16.77	16.77

Submitted by (contractor's Representative): Val Conzet	Date: 03/29/10
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*Leap year = 366 days

NOTE: The estimate monthly quantities shall include the total deliveries to all turnouts of each contractor.

The District will provide executed copies to:

- Water Retailers' Agency
- Financial Planning and Management Division
- Financing and Revenue Collection Unit
- Treated Water Operations and Maintenance Division
- Water Quality Unit
- Water Supply Operations Division

From: Nicole Sandkulla [mailto:NSandkulla@bawasca.org]

Sent: Thursday, February 24, 2011 3:04 PM

To: Levin, Ellen

Cc: Art Jensen; Allison C. Schutte; Anona Dutton; Petrick, Molly; Alan Kurotori (akurotori@santaclaraca.gov); Alex Ameri (alex.ameri@hayward-ca.gov); Art Morimoto (amorimoto@burlingame.org); Cari Lemke; Carrasco, Anthony; cathya@midpeninsulawater.org; David Dickson (ddickson@coastsidewater.org); dbarrow@westboroughwater.com; eric.cartwright@acwd.com; Flegel, Elizabeth; Gregg Hosfeldt (gregg.hosfeldt@mountainview.gov); Henry Young (henryy@midpeninsulawater.org); James Craig; Jerry Flanagan; Justin Ezell (jezell@redwoodcity.org); smtp:kphalen@ci.milpitas.ca.gov; Klara Fabry (kfabry@sanbruno.ca.gov); koconnell@nccwd.com; ksteffens@menlopark.org; M. L. Gordon (acmoffice2415@yahoo.com); Nasser, Mansour; Marty Laporte (martyl@bonair.stanford.edu); Marvin Rose (mrose@ci.sunnyvale.ca.us); mdebry@hillsca.org; Patrick Sweetland (psweetland@dalycity.org); Patrick Walter (pwalter@purissimawater.org); paulr@midpeninsulawater.org; Procos, Nicolas; Randy Breault; Rebecca Fotu (rlfotu@menlopark.org); rpopp@ci.millbrae.ca.us; rtowne@fostercity.org; Thomas.Niesar@acwd.com; Tim McAuliffe (tmcauliffe@burlingame.org); (mbolzowski@calwater.com); Alicia Sargiotto; Allison turner (alison.turner@mountainview.gov); Aparna Chatterjee; Brendan McCarthy; Brent Chester; Cathleen Brennan (cbrennan@coastsidewater.org); Cindy Bertsch; croyer@dalycity.org; Dana Jacobson; ECooney@HILLSBOROUGH.NET; Elvert, Catherine; gnathan@amwater.com; Howard Salamanca (hsalamanca@ci.milpitas.ca.gov); Jade Williams (jawilliams@calwater.com); Jeanette Kalabolas (jeanettek@midpeninsulawater.org); Krista Kuehnackl; Leah Edwards; marilyn.mosher@hayward-ca.gov; Quesada, Nicole; Nina Hawk (nhawk@santaclaraca.gov); Norm Dorais (NDORAIS@fostercity.org); Shelly Reider (sreider@ci.millbrae.ca.us); Stephanie Nevins (stephanie.nevins@acwd.com); Toni Harris; Tracy Ingebrigtsen (tracyi@bonair.stanford.edu); Val Conzet (vconzet@ci.sunnyvale.ca.us); Virginia Parks; William Lai; Zach Goldberg

Subject: FW: Projected SFPUC Purchases for UWMP Preparation Needed by February 17, 2011

Dear Ms. Levine,

In response to the e-mail below and the SFPUC's request for purchase projections from its Wholesale Customers for use in the SFPUC's Urban Water Management Plan 2011 Update, attached is the requested information that I have received from the BAWSCA agencies. The table below provides a summary display of the responses received from the BAWSCA member agencies as transmitted in this e-mail.

If you have any further questions, please contact me at the BAWSCA office. I will forward to the SFPUC any additional responses that are received at a later date.

Sincerely,
Nicole Sandkulla

Updated Purchase Projections for SFPUC	
Agency Name	Projections Included in 2/24/11 E-Mail
ACWD	x
Brisbane	x
Burlingame	x
Cal Water	x
Coastside	x
Daly City	x
East Palo Alto	
Estero	x
Guadalupe Valley	x
Hayward	x
Hillsborough	E-Mail Response Included, Projections Not Yet Available
Menlo Park	
Mid-Peninsula	x
Millbrae	x
Milpitas	x
Mountain View	E-Mail Response Included, Projections Not Yet Available
North Coast	
Palo Alto	
Purissima Hills	
Redwood City	x
San Bruno	x
San Jose	x
Santa Clara	x
Stanford	E-Mail Response Included, Projections Not Yet Available
Sunnyvale	x
Westborough	x

Nicole M. Sandkulla, P. E.
 Water Resources Planning Manager
 Bay Area Water Supply and Conservation Agency
 155 Bovet Road, Suite 302

San Mateo, CA 94402
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EMail: NSandkulla@BAWSCA.org
Website: WWW.BAWSCA.org

From: Nicole Sandkulla [mailto:NSandkulla@bawasca.org]
Sent: Friday, February 04, 2011 12:03 PM
Subject: Projected SFPUC Purchases for UWMP Preparation Needed by February 17, 2011
Importance: High

Dear BAWSCA Water Management Representatives,

The San Francisco Public Utilities Commission (SFPUC) has requested projections from each of its wholesale customers of purchases from the San Francisco Regional Water System (System) in five year increments from 2015 to 2030 (or 2035). The SFPUC will use this information to prepare its Wholesale Urban Water Management Plan for the System.

SFPUC's request is consistent with the requirements of Section 10631 of the California Water Code which states:

(k) Urban water suppliers that rely upon a wholesale agency for a source of water shall provide the wholesale agency with water use projections from that agency for that source of water in five-year increments to 20 years or as far as data is available. The wholesale agency shall provide information to the urban water supplier for inclusion in the urban water supplier's plan that identifies and quantifies, to the extent practicable, the existing and planned sources of water as required by subdivision (b), available from the wholesale agency to the urban water supplier over the same five-year increments, and during various water-year types in accordance with subdivision (c). An urban water supplier may rely upon water supply information provided by the wholesale agency in fulfilling the plan informational requirements of subdivisions (b) and (c).

Historically, the SFPUC has relied on each agency's water purchase projections reported in the BAWSCA Annual Report. However, past purchase projections may not be appropriate for a variety of reasons:

- Changes in the economy and overall water use characteristics in the region
- Agencies are updating their projected needs and use of sources as they prepare their UWMP's
- Projections in the FY 2008-2009 Annual Report do not include the results of the Water Conservation Implementation Plan and the status of each agency's conservation programs

The SFPUC will need to document estimated water sales, including amounts for Wholesale Customers that are exempt from filing UWMP's. We recommend that those agencies that

are not required to prepare UWMP's provide BAWSCA with the five-year projected purchases you wish the SFPUC to use in preparing its report.

As in the past, BAWSCA will support providing this information to the SFPUC in a coordinated fashion. To meet the SFPUC's deadline, please provide BAWSCA your projected SFPUC purchases in 5-year increments by close-of-business on Thursday, February 17, 2011. In addition to the numbers themselves, BAWSCA will forward to the SFPUC any qualifications that you wish to have associated with the data you provide at this time (e.g. that the data is draft and subject to modification as part of finalizing your agency UWMP). BAWSCA will forward information received to SFPUC on Friday, February 18th.

BAWSCA will only send to the SFPUC data that it receives from each of your agencies specifically for this purpose. No data will be provided to the SFPUC for agencies that do not provide data to BAWSCA.

Lastly, please note that BAWSCA will also utilize these purchase projections provided by each BAWSCA agency to prepare and submit the water purchase projections through 2018 due to the SFPUC by June 30, 2011 in compliance with Section 4.05 of the 2009 Water Supply Agreement unless otherwise notified of a change in the numbers by individual member agencies.

If you have any questions, please call me or Anona Dutton.

Sincerely,
Nicole Sandkulla

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Sunnyvale
p. 1 of 1

Nicole Sandkulla

From: Jim Craig [JCraig@ci.sunnyvale.ca.us]
Sent: Monday, February 07, 2011 3:25 PM
To: Nicole Sandkulla
Cc: Brendan McCarthy; Christina Uribe; Marvin Rose; Tim Kirby; Val Conzet
Subject: Re: Projected SFPUC Purchases for UWMP Preparation Needed by February 17, 2011

Nicole,

On behalf of the City of Sunnyvale, and Director Marvin Rose, appointed Water Management Representative for the City, I am informing you of the projection of water purchases by the City of Sunnyvale from the SFPUC from 2015 through 2035.

The projected Sunnyvale purchases from SFPUC for the requested period, at 5 year increments, are as follows:

2015	8.930 MGD
2020	8.930 MGD
2025	8.930 MGD
2030	8.930 MGD
2035	8.930 MGD

If you have any questions about this projection, please call at your convenience.

Jim Craig
Superintendent of Field Services
P.O. Box 3707
Sunnyvale, CA 94088-3707

(408) 730-7558
jcraig@ci.sunnyvale.ca.us

>>> Nicole Sandkulla <NSandkulla@bawsca.org> 2/4/11 12:02 PM >>>

Dear BAWSCA Water Management Representatives,

The San Francisco Public Utilities Commission (SFPUC) has requested projections from each of its wholesale customers of purchases from the San Francisco Regional Water System (System) in five year increments from 2015 to 2030 (or 2035). The SFPUC will use this information to prepare its Wholesale Urban Water Management Plan for the System.