

# ANNUAL SURVEY



June 2018

Fiscal Year 2016-17

**BAWSCA**  
Bay Area Water Supply & Conservation Agency

# Bay Area Water Supply and Conservation Agency FY 2016-17

- EXECUTIVE SUMMARY
- BAWSCA OVERVIEW
- PAST AND CURRENT PURCHASES FROM SFPUC
- TOTAL WATER SUPPLY AND DEMAND
- CURRENT WATER USE BY CUSTOMER CLASS
- CLIMATOLOGICAL DATA
- SERVICE AREA POPULATIONS
- CURRENT WATER USE PER CAPITA
- CURRENT RESIDENTIAL WATER BILLS
- AGENCY PROFILES

JUNE 2018

# BAWSCA WATER FACTS AT-A-GLANCE – FY 2016-17

## BAWSCA Member Agencies

**San Mateo County** - City of Brisbane / Guadalupe Valley Municipal Improvement District, City of Burlingame, California Water Service Company (Bear Gulch District, Mid-Peninsula District, South San Francisco District), Coastside County Water District, City of Daly City, City of East Palo Alto, Estero Municipal Improvement District, Town of Hillsborough, City of Menlo Park, Mid-Peninsula Water District, City of Millbrae, North Coast County Water District, City of Redwood City, City of San Bruno, and Westborough Water District

**Santa Clara County** - City of Milpitas, City of Mountain View, City of Palo Alto, Purissima Hills Water District, San Jose Municipal Water System – North, City of Santa Clara, Stanford University, and City of Sunnyvale

**Alameda County** - Alameda County Water District, City of Hayward

## Service Areas

	Size (sq. mi.)	Population	Number of Agencies
San Mateo County	185	744,733	16
Santa Clara County	117	547,283	8
Alameda County	166	509,523	2
<b>Total</b>	<b>468</b>	<b>1,801,539</b>	<b>26</b>

## Supply by Source

	ccf	mgd	af	%
San Francisco RWS	59,399,763	121.73	136,363	65.9%
Groundwater	8,115,778	16.63	18,631	9.0%
Surface Water	4,852,839	9.94	11,141	5.4%
Recycled Water	3,528,899	7.23	8,101	3.9%
Other Sources	14,271,800	29.25	32,764	15.8%
<b>Total</b>	<b>90,169,079</b>	<b>184.78</b>	<b>207,000</b>	<b>100%</b>

## Demand by Sector

	ccf	mgd	af	%
Residential	50,969,666	104.45	117,010	57%
Commercial/Industrial	19,031,019	39.00	43,689	21%
Government/Institutional/Other	3,832,422	7.85	8,798	4%
Dedicated Irrigation	8,028,789	16.45	18,432	9%
Unaccounted for	8,307,182	17.02	19,071	9%
<b>Total</b>	<b>90,169,079</b>	<b>184.78</b>	<b>207,000</b>	<b>100%</b>

## Water Measurements

af = acre-foot; 1 af = 435.6 ccf or 325,851 gallons

ccf = 100 cubic feet; approximately 748 gallons

gpcd = gallons per capita per day

mgd = million gallons per day

Cover photo: Calaveras Dam Spillway Filling Basin, September 13, 2017. Image Courtesy of Leonard Ash, Alameda County Water District.

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# Annual Survey

FISCAL YEAR 2016-17

## ABOUT BAWSCA

The Bay Area Water Supply and Conservation Agency (BAWSCA) is a special district that provides regional water supply planning, resource development, and conservation program services to enhance the reliability of the 16 cities, 8 water districts, 1 university, and 1 private water provider that provide water to over 1.8 million people and 40,000 commercial, industrial and institutional accounts in Alameda, Santa Clara and San Mateo Counties. BAWSCA was enabled by a special act of the California Legislature and was formed by its member agencies in 2003.

BAWSCA's water management objective is to ensure a reliable supply of high quality water at a fair price to protect the health, safety, and economic well-being of the people, businesses, and community organizations within its service area.

BAWSCA is the only entity authorized under state law to directly represent the interests of its member agencies in matters related to the San Francisco Regional Water System (SF RWS). BAWSCA enables the customers of the SF RWS to work with the San Francisco Public Utilities Commission (SFPUC) on an equal basis to ensure that the system is maintained, and to collectively and efficiently meet local responsibilities.

## BAWSCA MEMBER AGENCIES

### San Mateo County

In San Mateo County, BAWSCA and its member agencies serve a population of approximately 745,000 within a service area of approximately 185 square miles. BAWSCA member agencies that serve San Mateo County include: City of Brisbane, City of Burlingame, California Water Service (CWS) – Bear Gulch, CWS – Mid-Peninsula, CWS – South San Francisco, Coastside County Water District, City of Daly City, City of East Palo Alto, Estero Municipal Improvement District, Guadalupe Valley Municipal Improvement District (GVMD), Town of Hillsborough, City of Menlo Park, Mid-Peninsula Water District, City of Millbrae, North Coast County Water District, City of Redwood City, City of San Bruno, and Westborough Water District.

### Santa Clara County

In Santa Clara County, BAWSCA and its member agencies serve a population of approximately 547,000 within a service area of approximately 117 square miles. BAWSCA member agencies that serve Santa Clara County include: City of Milpitas, City of Mountain View, City of Palo Alto, Purissima Hills Water District, San Jose Municipal Water System, City of Santa Clara, City of Sunnyvale, and Stanford University.

### Alameda County

In Alameda County, BAWSCA and its member agencies serve a population of approximately 510,000 within a service area of approximately 166 square miles. BAWSCA member agencies that serve Alameda County include Alameda County Water District and the City of Hayward.

**BAWSCA Members Map**



**Legend**

- |   |                                      |
|---|--------------------------------------|
| 1 Alameda County Water District         | 13 Mid-Peninsula Water District      |
| 2 City of Brisbane                      | 14 City of Millbrae                  |
| 3 City of Burlingame                    | 15 City of Milpitas                  |
| 4a CWS – Bear Gulch                     | 16 City of Mountain View             |
| 4b CWS – Mid-Peninsula                  | 17 North Coast County Water District |
| 4c CWS – South San Francisco            | 18 City of Palo Alto                 |
| 5 Coastside County Water District       | 19 Purissima Hills Water District    |
| 6 City of Daly City                     | 20 City of Redwood City              |
| 7 City of East Palo Alto                | 21 City of San Bruno                 |
| 8 Estero Municipal Improvement District | 22 San Jose Municipal Water System   |
| 9 Guadalupe Valley MID                  | 23 City of Santa Clara               |
| 10 City of Hayward                      | 24 Stanford University               |
| 11 Town of Hillsborough                 | 25 City of Sunnyvale                 |
| 12 City of Menlo Park                   | 26 Westborough Water District        |

**Sources:** BAWSCA, San Mateo County General Plan

## ANNUAL SURVEY OVERVIEW

Since 1996, BAWSCA and its predecessor organization, the Bay Area Water Users Association, has conducted an annual survey of its member agencies in order to update key BAWSCA service area information including projections of wholesale customer water demands and population. This document presents the results of the latest annual survey process, including:

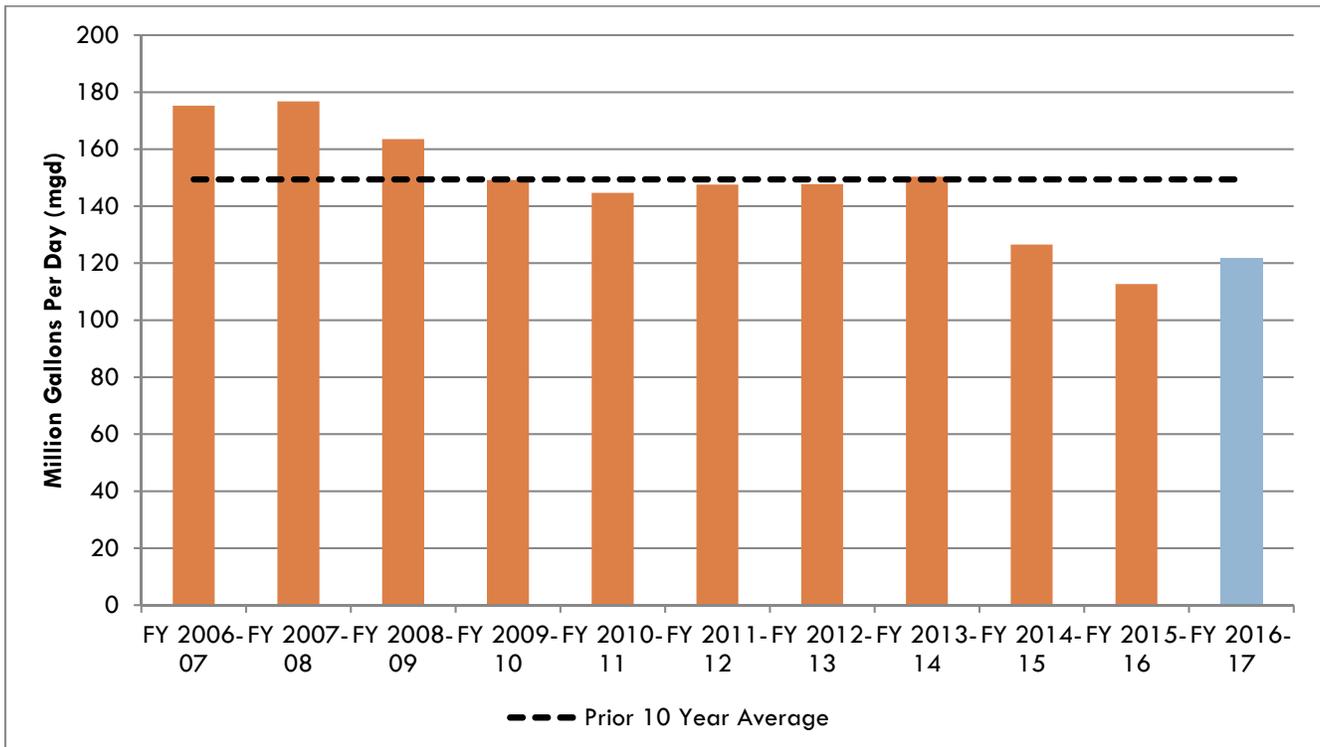
- Current water supply from each source
- Current and projected water purchases from SF RWS
- Projected water supplies and demands
- Consumption by customer class
- Current and projected population
- Per capita water use
- Single family water bills and rate structures
- BAWSCA member agency profiles

## PURCHASES FROM SF RWS

### Current Water Purchases from SF RWS

The San Francisco Public Utilities Commission (SFPUC) operates the SF RWS, which is the major source of supply for BAWSCA member agencies. In FY 2016-17, the BAWSCA member agencies reported SF RWS purchases of 116.4 mgd, 3% higher than the total of 112.6 mgd purchased in FY 2015-16. In addition, BAWSCA member agencies reported 5.3 mgd in supplemental purchases as part of the conjunctive use program. Compared with the prior ten-year average, total purchases in FY 2016-17 were below average by 33.0 mgd. When compared to FY 2007-08, the highest year in the prior ten-year period, FY 2016-17 purchases were lower by 57.9 mgd, a difference of about 33%.

**Figure ES-1: Past and Current SF RWS Purchases, Including Supplemental Purchases**



## Projected Water Purchases from SFPUC

As part of SFPUC’s action on the Program Environmental Impact Report (PEIR) for its Water System Improvement Program (WSIP), it made the decision to limit wholesale customer purchases from the SF RWS to 184 mgd and retail customer purchases from the SF RWS to 81 mgd through 2018. In June 2017, BAWSCA notified the SFPUC that the projected BAWSCA member agency purchases in 2018 are expected to be 130 mgd. In FY 2040-41, BAWSCA member agency purchases from the SF RWS are projected to reach 175 mgd.

## Water Use Reductions in Response to Statewide Drought

On January 17, 2014, Governor Brown proclaimed a State of Emergency and directed state officials to take all necessary actions to prepare for drought conditions. On January 31, 2014, SFPUC asked all customers of the SF RWS to voluntarily curtail water consumption. The goal was to reduce system-wide usage by 10%, from 157.4 mgd projected BAWSCA member agency calendar year 2014 water purchases to 141.7 mgd. This request was extended through calendar year 2016.

On April 1, 2015, Governor Brown issued an executive order directing the State Water Resources Control Board (SWRCB) to implement mandatory water reductions across California to reduce water usage by 25 percent. In accordance with the Executive Order, the SWRCB adopted an emergency regulation for statewide water conservation in May 2015. The regulation established mandatory water use reduction targets, referred to as “conservation standards”, for each urban water supplier in California, in order to achieve a statewide 25% reduction in potable water use.

On February 8, 2017, SFPUC lifted its request for voluntary water use reductions due to significant improvement in water supply conditions. On April 7, 2017, Governor Brown lifted the Drought State of Emergency and directed the SWRCB to rescind mandatory conservation standards statewide. The SWRCB formally removed these requirements on April 26, 2017.

The BAWSCA Drought Report, published in August 2017, provides the detailed information on drought actions and monthly water use reductions for the BAWSCA member agencies.

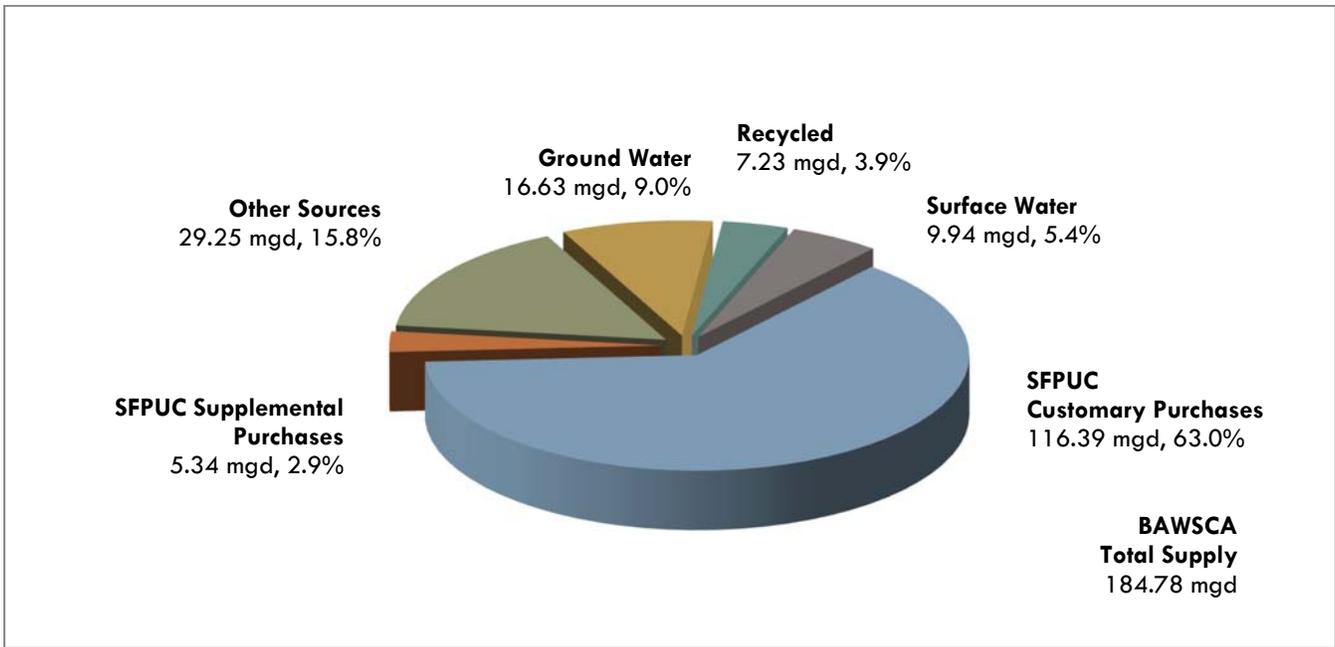
## TOTAL WATER SUPPLY AND DEMAND

### Current Water Supply by Source

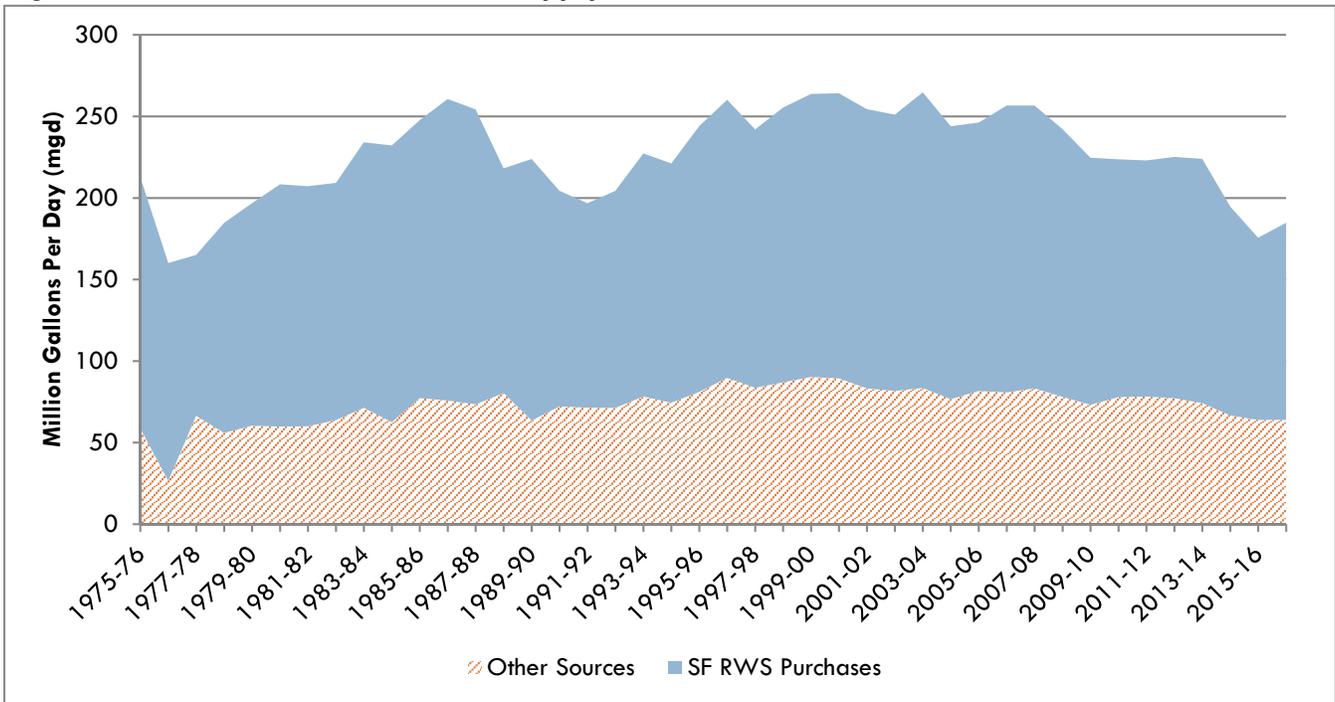
The sources of supply used by BAWSCA member agencies are very consistent, typically varying by less than 2% from one year to the next. Of the total amount of water used by BAWSCA agencies in FY 2016-17, 65.9% came from the SF RWS and 34.1% came from other sources. These other sources included:

- Groundwater (16.63 mgd, 9.0%);
- Local surface water, primarily from ACWD’s take from Lake Del Valle (9.94 mgd, 5.4%);
- Other supplies from the Santa Clara Valley Water District, the State Water Project, and ACWD’s brackish water desalination (29.25 mgd, 15.8%); and
- Recycled water (7.23 mgd, 3.9%).

**Figure ES-2: FY 2016-17 Water Use by Source**



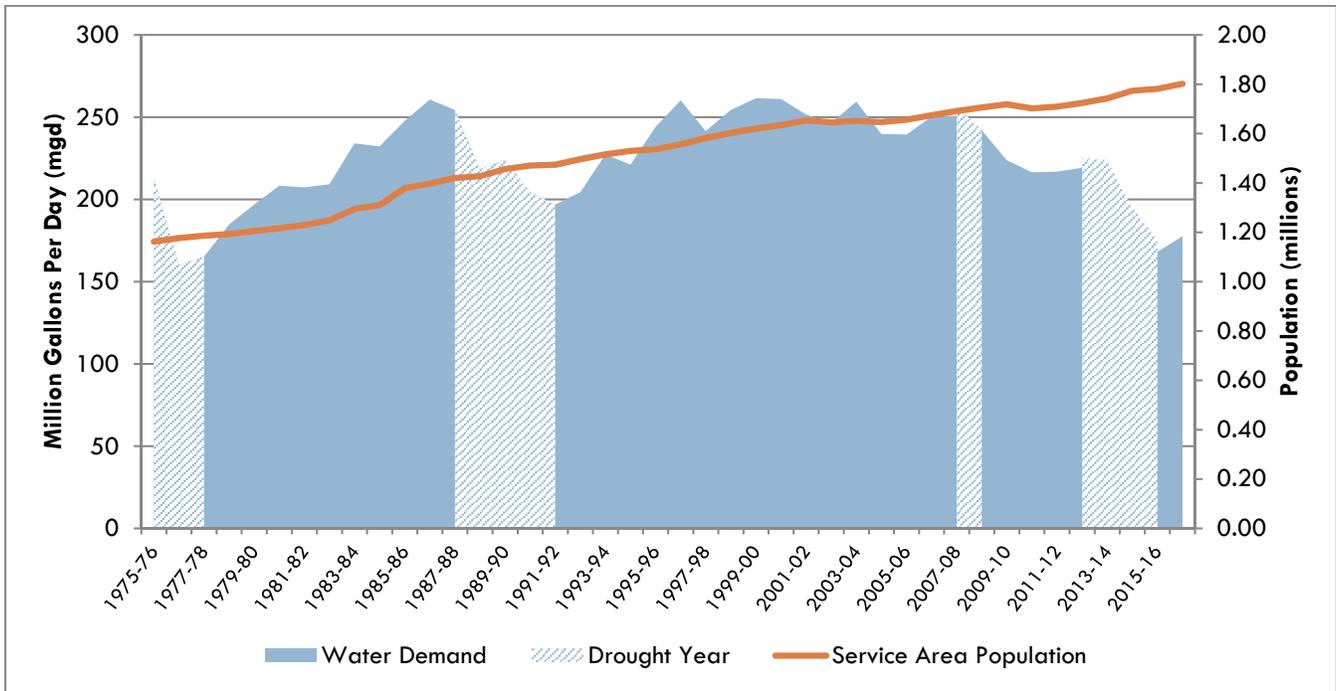
**Figure ES-3: Past and Current Water Supply**



**Current BAWSCA-Wide Total Water Demand**

For FY 2016-17, total water demand in the BAWSCA service area, including SFPUC purchases and other sources, was 184.8 mgd. In comparison, in FY 1996-97, BAWSCA-wide demand reached 260 mgd. When compared to FY 2012-13, the fiscal year immediately preceding the Governor’s drought proclamation, water used in the BAWSCA service area was 17% less in FY 2016-17. In FY 2016-17, 32% less water was used in the service area compared to the peak year, FY 1986-87, despite a 29% population increase.

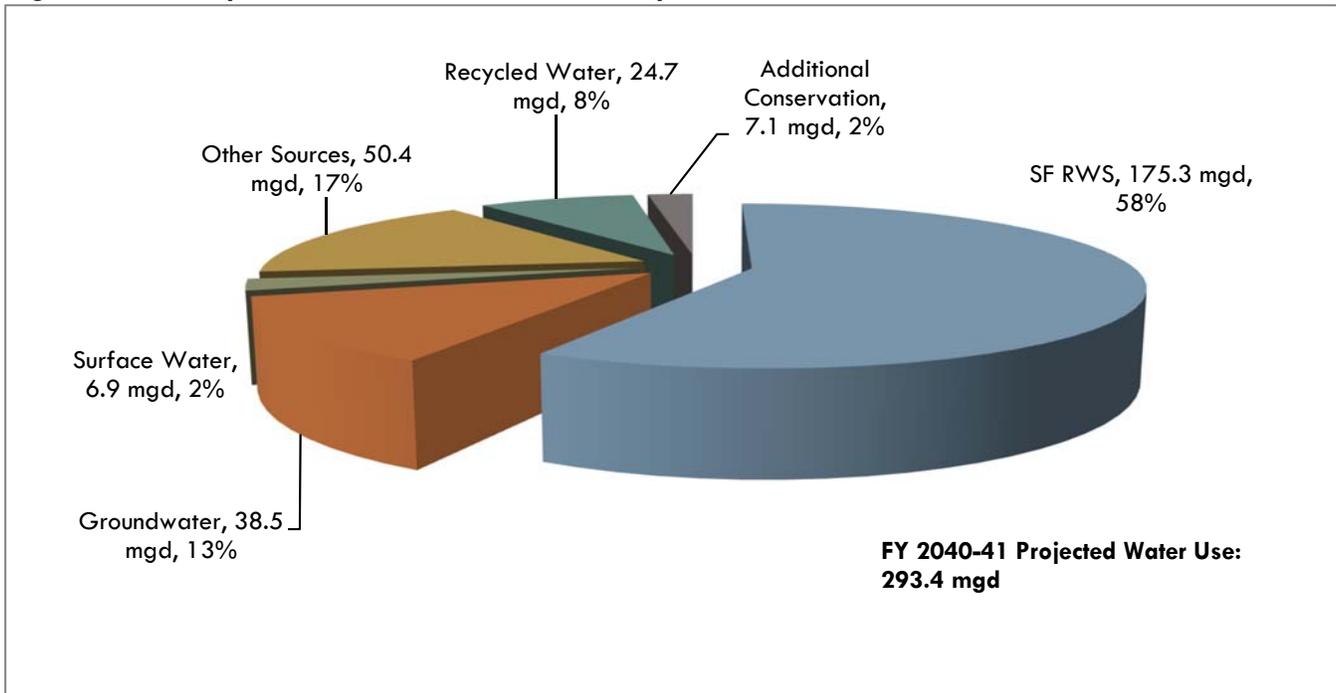
**Figure ES-4: Past and Current Population and Water Demand**



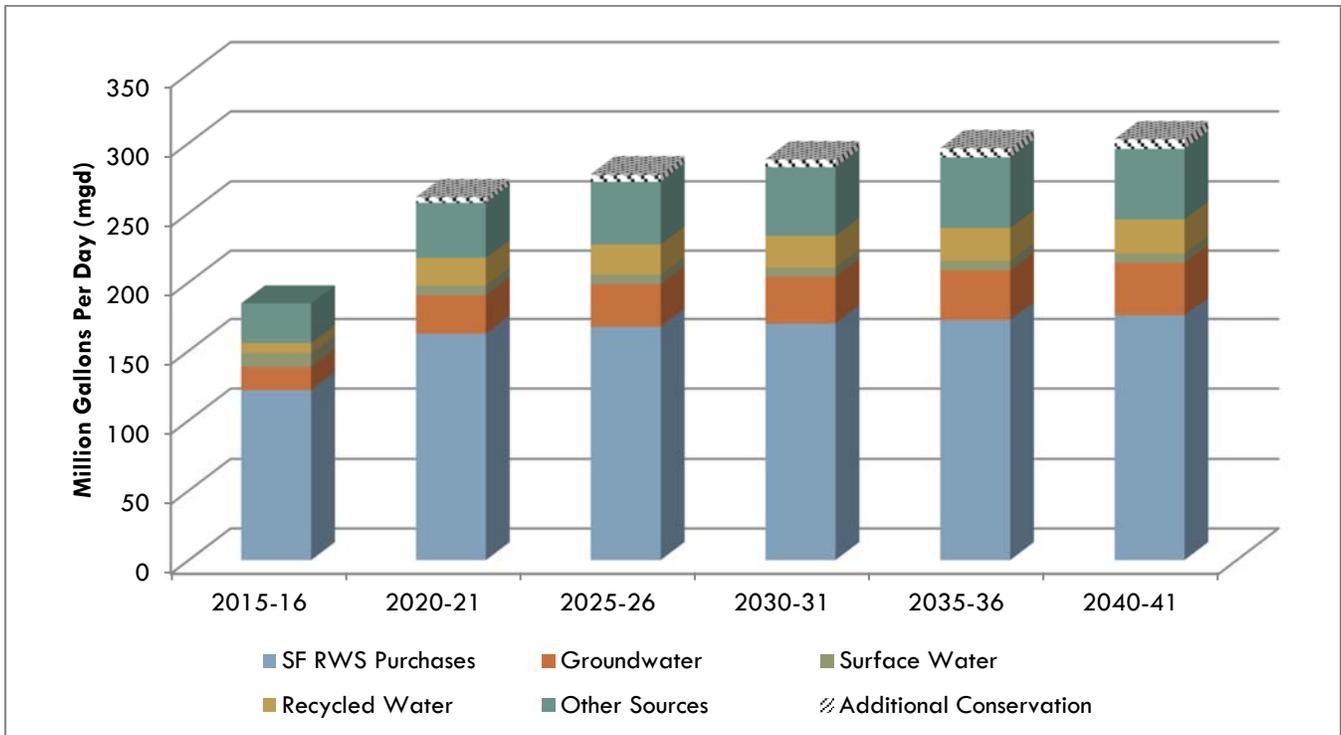
**Projected Water Supplies and Demands**

The total normal year water demands of the BAWSCA member agencies are projected to reach 302.9 mgd by FY 2040-41 (Source: FY 2016-17 Annual Survey). Of the total water demand, 7.1 mgd is projected to be met through additional active conservation beyond that already achieved within the BAWSCA service area. SF RWS purchases are anticipated to be 175.3 mgd in FY 2040-41. Recycled water supplies are projected to increase by 241% to 24.7 mgd by FY 2040-41.

**Figure ES-5: Projected FY 2040-41 Water Use by Source**



**Figure ES-6: Projected Normal Year Water Supplies by Source**



### Meeting Projected Dry Year Water Demands

BAWSCA’s Long-Term Reliable Water Supply Strategy Phase II Final Report (Strategy), completed in 2015, does not project a regional need for additional water supplies to meet normal year demands through 2040. However, the Strategy identifies reliability shortfalls on the SF RWS of up to 43 mgd in dry years during the same planning period, resulting in system-wide SF RWS supply cutbacks of up to 20%. The Strategy identifies nine specific projects in five categories, which, if all projects were successfully implemented, would effectively meet the 43 mgd dry year supply need.

*BAWSCA’s Long Term Reliable Water Supply Strategy identifies water supply options to meet potential dry year supply shortfalls of up to 43 mgd.*

The Strategy identifies recommended actions to maximize the likelihood that BAWSCA and its member agencies can provide water when and where it is needed. These actions include:

- Lead water transfer development and implementation including identifying and evaluating water storage options;
- Facilitate desalination and advanced treatment supply project partnerships and pursue outside funding for related studies;
- Support member agency-identified projects (i.e. recycled water and groundwater) and local capture and reuse;
- Participate in regional planning studies in cooperation with others; and
- Continue monitoring regional water supply investments and policies.

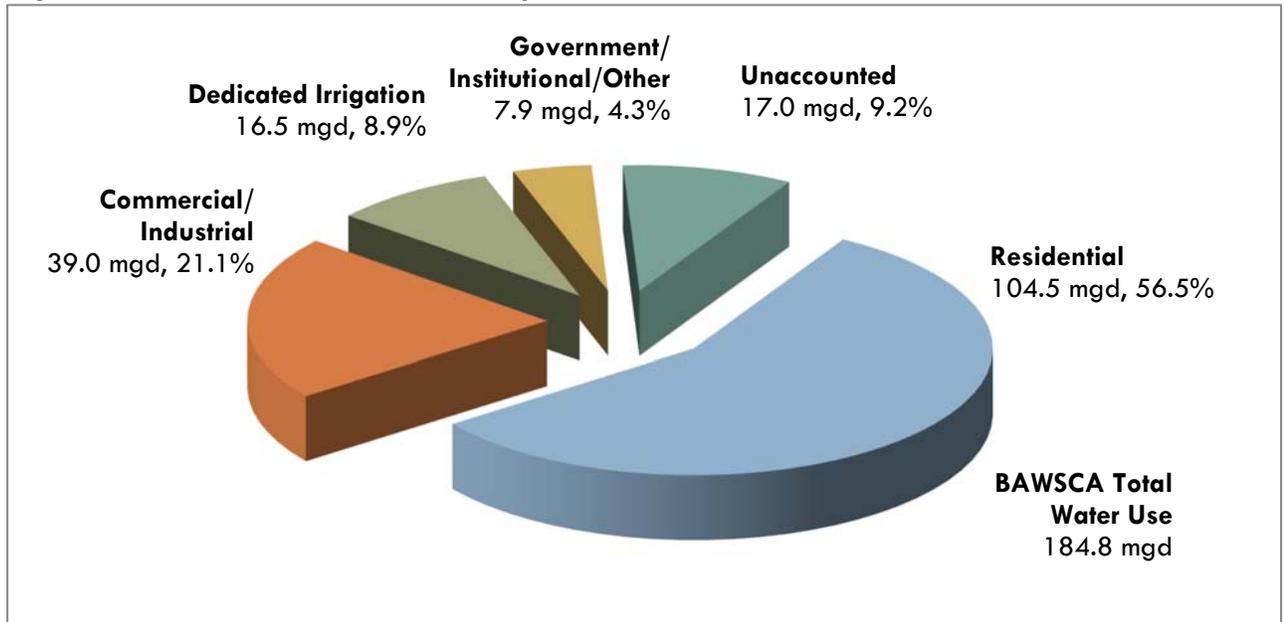
### CURRENT WATER USE BY CLASS OF CUSTOMER

As with the source of supply, BAWSCA’s demand by customer class is relatively consistent over time. Of the 184.8 mgd consumed among BAWSCA agencies in FY 2016-17, the residential sector accounted for 56.5%

(104.5 mgd); commercial and industrial customers for 21.1 (39.0 mgd); government, institutional and other customers for 4.3% (7.9 mgd); dedicated irrigation for 8.9% (16.5 mgd); and non-revenue water for 9.2% (17.0 mgd).

In FY 2016-17, there were 432,438 accounts (service connections) in the entire BAWSCA service area, 88%, or 382,581, of which were residential.

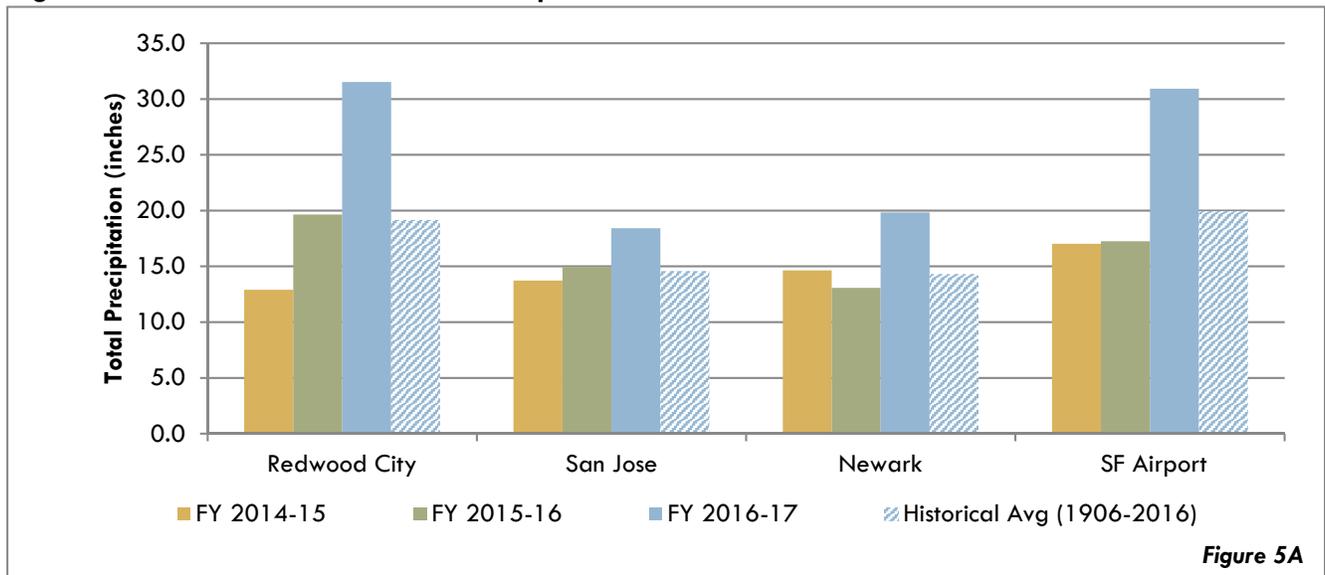
**Figure ES-7: FY 2015-16 Water Use by Customer Class**



## CLIMATE DATA

FY 2016-17 was a particularly wet year, with rainfall totals recorded at 4 representative locations in the BAWSCA service area that were, on average, 48% higher than the historical average from 1948 - 2016. In FY 2014-15 and FY 2015-16 rainfall totals recorded at these locations were below average by 14% and 5% respectively.

**Figure ES-8: Historic and Current Precipitation Levels**



**Figure 5A**

## POPULATION AND PER CAPITA WATER USE

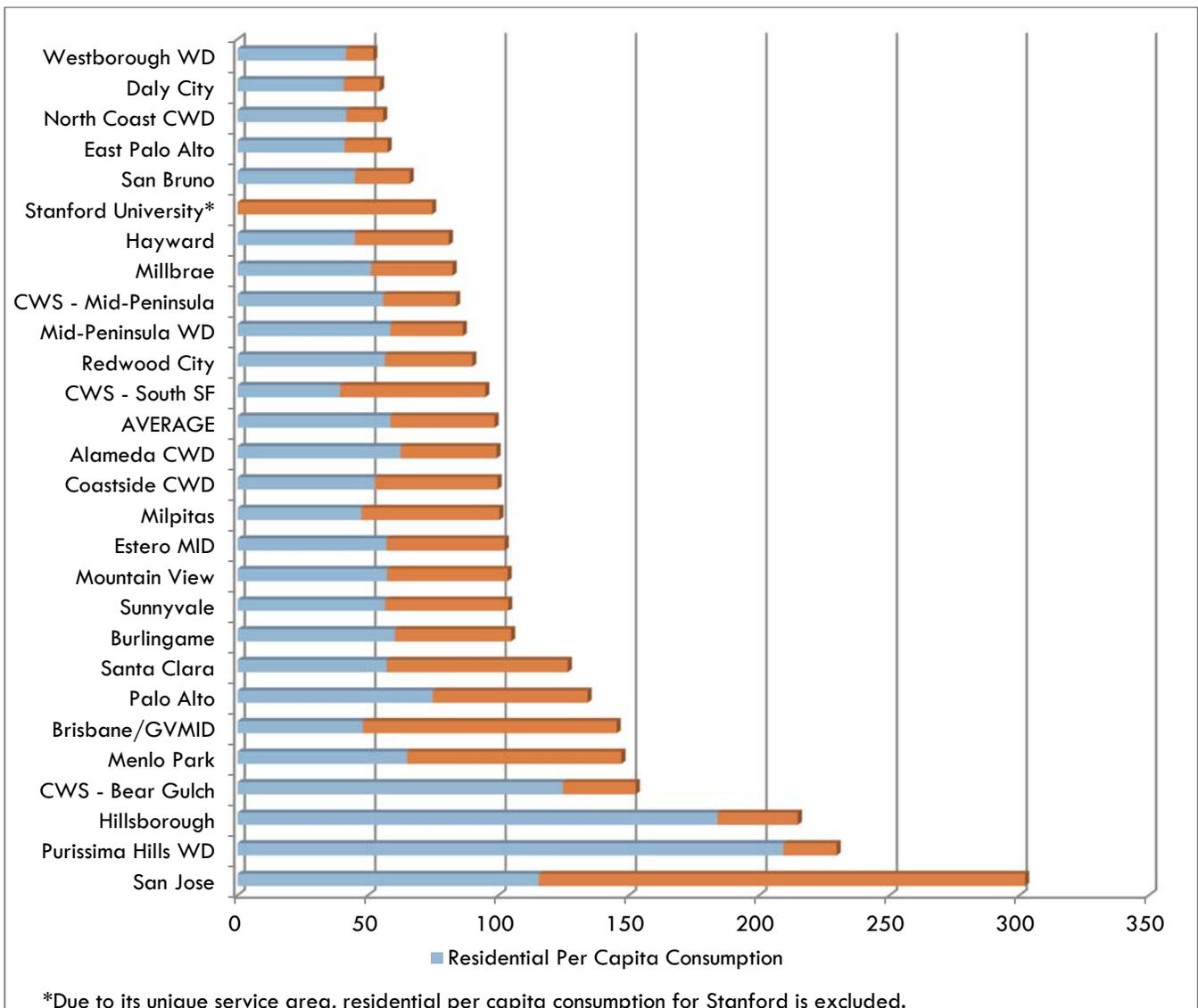
The population of the BAWSCA service area is estimated to have increased from 1,781,336 to 1,801,539 between FY 2015-16 and FY 2016-17. The BAWSCA service area population is projected to reach 2,231,896 by FY 2040-41.

Average residential per capita consumption (excluding Stanford) in the BAWSCA service area was 58.6 gpcd in FY 2016-17, 5% more than the year before. This is 49% less than the estimated peak residential per capita consumption of 114.9 gpcd in FY 1975-76. In FY 2016-17, CWS - South SF had the lowest residential per capita consumption at 39.2 gpcd while Purissima Hills WD had the highest at 209.2 gpcd.

*In FY 2016-17, eleven BAWSCA member agencies had residential water use of less than 55 gallons per capita per day.*

The average gross per capita consumption in the BAWSCA service area was 98.6 gpcd in FY 2016-17, 5% higher than FY 2015-16. At the peak in FY 1986-87, gross per capita consumption was 186.5 gpcd.

**Figure ES-9: BAWSCA Member Agency Per Capita Water Use**

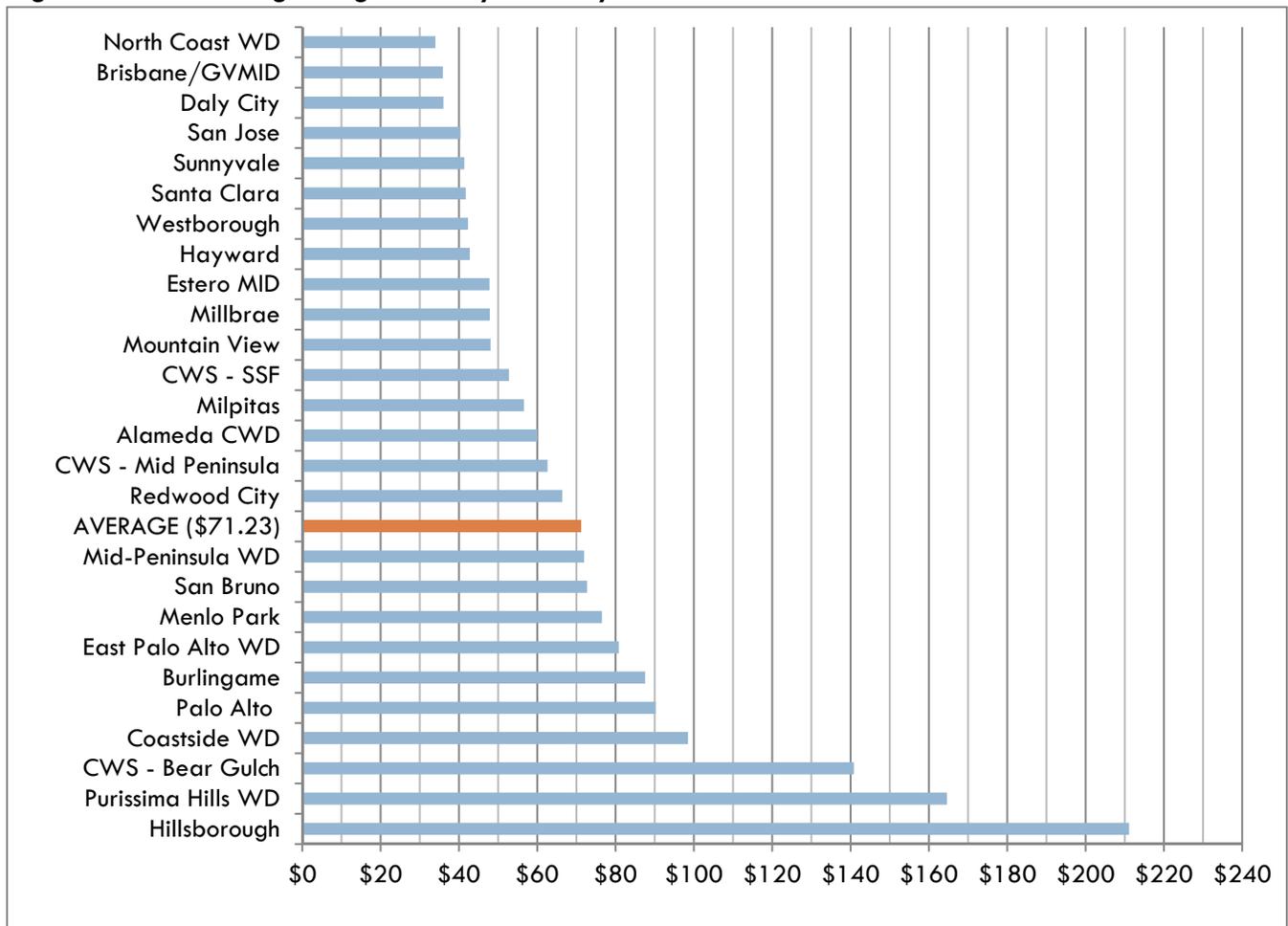


## SINGLE FAMILY WATER AND RATE STRUCTURES

Water bill data has been calculated using each agency’s single family average monthly use. Among the BAWSCA agencies, the average bill ranged from a low of \$34.00 for 5.0 units in the North Coast CWD service area to a high of \$211.13 for 19.4 units in Hillsborough. The average single family water bill among the BAWSCA member agencies, inclusive of the service charge, was \$71.23.

Five BAWSCA member agencies (Alameda County Water District, East Palo Alto, Millbrae, Santa Clara, and Westborough Water District) had a uniform rate structure in FY 2016-17, defined as a single rate per unit of water for all volumes used. The other agencies have an inclining block rate structure in which the rate per unit increases as the water use increases.

**Figure ES-10: Average Single Family Monthly Water Bill**



# 1. BAWSCA Overview



## BAY AREA WATER SUPPLY AND CONSERVATION AGENCY

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San Mateo, CA 94402

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E-Mail: [BAWSCA@BAWSCA.org](mailto:BAWSCA@BAWSCA.org)

### Goals

To ensure a reliable supply of high quality water at a fair price.

### Composition

BAWSCA is a special district that provides regional water supply planning, resource development, and conservation program services to enhance the reliability of the 16 cities, 8 water districts, and 2 private water providers that provide water to over 1.8 million people and 40,000 commercial, industrial and institutional accounts in Alameda, Santa Clara and San Mateo Counties.

BAWSCA was enabled by a special act of the California Legislature and formed by its member agencies to protect the health, safety, and economic well-being of the people, businesses, and community organizations within its service area. BAWSCA's water management objective is to ensure a reliable supply of high quality water at a fair price.

Additionally, BAWSCA is the only entity having authority under state law to directly represent the interests of its member agencies with San Francisco and its agent, the San Francisco Public Utilities Commission (SFPUC), in matters related to the San Francisco Regional Water System (SF RWS). BAWSCA provides the ability for the customers of the SF RWS to work with San Francisco on an equal basis to ensure that the agencies and their customers pay only their fair and correct share of SF RWS costs, to see that the system gets fixed through successful implementation of the Water System Improvement Program (WSIP), and to collectively and efficiently meet local water supply responsibilities.

There is considerable variety among the BAWSCA member agencies. Beyond having different institutional charters (e.g., cities, districts, investor-owned utility, etc.), they vary on at least the following measures:

#### ▣ Size

BAWSCA member agencies range from very small (e.g., the City of Brisbane and Guadalupe Valley Municipal Improvement District, with a combined service area population of roughly 4,156 and a service area of approximately 3 square miles) to quite large (e.g., Alameda County Water District, with a service area population of approximately 350,538 and a service area of 105 square miles).

#### ▣ Reliance on the San Francisco Regional Water System

Several of the BAWSCA member agencies are entirely dependent on the SF RWS for water supply. This is particularly the case in San Mateo County, which has limited groundwater or other water supply resources. However, several BAWSCA member agencies have developed, or are developing, their own local sources, or have access to water from the Santa Clara Valley Water District (SCVWD) or from the State Water Project. Coastside County Water District is the only BAWSCA member agency that receives untreated SF RWS water. All of the other BAWSCA member agencies receive treated water from the SF RWS. Collectively, 63% of all water delivered by the BAWSCA member agencies came from the SF RWS in FY 2016-17.

## Customer Mix

Most BAWSCA member agencies serve a mix of single family residential, multi-family residential, commercial, and industrial customers, in varying proportions. Several of the BAWSCA member agencies serve largely or entirely residential communities (e.g., Hillsborough, Purissima Hills Water District, and North Coast County Water District). One, Guadalupe Valley Municipal Improvement District, serves primarily an industrial area and a small residential community. Nearly 90% of all service connections in the BAWSCA service area are residential, with residential use comprising 59% of total potable demand in FY 2016-17.

## Climate

The BAWSCA member agencies located on the northern and coastal portions of San Mateo County have the cool temperatures and summer fog characteristics similar to San Francisco. Others in southern San Mateo County, northern Santa Clara County, and southern Alameda County have summer temperatures typically 20 degrees higher than those in San Francisco.

## Land Use

None of the BAWSCA member agencies have a population density comparable to that of San Francisco (about 17,000 persons per square mile). But some (e.g., Daly City and South San Francisco) do have residential housing stock similar to that of the Sunset and Richmond Districts in western San Francisco. Others have much larger lots (with far more green space per residence) and consequently, significantly higher outdoor irrigation demands.

## Water Use

Residential per capita water use correlates with land use, lot size, climate, and household income. In FY 2016-17, residential per capita water use was lower than the prior year due to water use reductions in response to the drought. Per capita use in the wholesale service area ranged from a low of 39 gallons per capita per day (gpcd) to a high of 209 gpcd. Average residential use is 59 gpcd (See Table 7A).

## Governance

BAWSCA is governed by a 26-member Board of Directors comprised of respected community leaders. Each of the 24 cities and water districts that are member agencies of BAWSCA appoint a director to the board. In addition, the Santa Clara County Board of Supervisors appoints a director for Stanford University and the San Mateo County Board of Supervisors appoints a director for the California Water Service Company.

## Organization and Budget

Day-to-day leadership is provided by the Chief Executive Officer/General Manager, Nicole Sandkulla, who is supported by a staff of seven. A standing Board Policy Committee, comprised of board members, advises the CEO and the full board on policy matters. The agency's FY 2016-17 budget was \$3.47M, funded through individual agency assessments. In addition, BAWSCA plans and administers water conservation programs throughout the region funded by the agencies that choose to participate.

## Organizational Challenges

BAWSCA's strategic challenges include:

- Developing and implementing the long-term reliable water supply strategy to ensure that water supply needs for the BAWSCA members will be adequately met in times of drought and in the future.

- Monitoring the SFPUC to ensure it completes its capital improvement program for rebuilding the regional water system promptly and cost-effectively with the cost fairly allocated between San Francisco retail and BAWSCA member agencies.
- Administering the 2009 water supply agreement between San Francisco and its Wholesale Customers.
- Encouraging and assisting implementation of cost-effective water conservation and wastewater recycling programs.
- Encouraging communities to prepare for long-term water outages.
- Maintaining support from BAWSCA's political, community, and private allies.

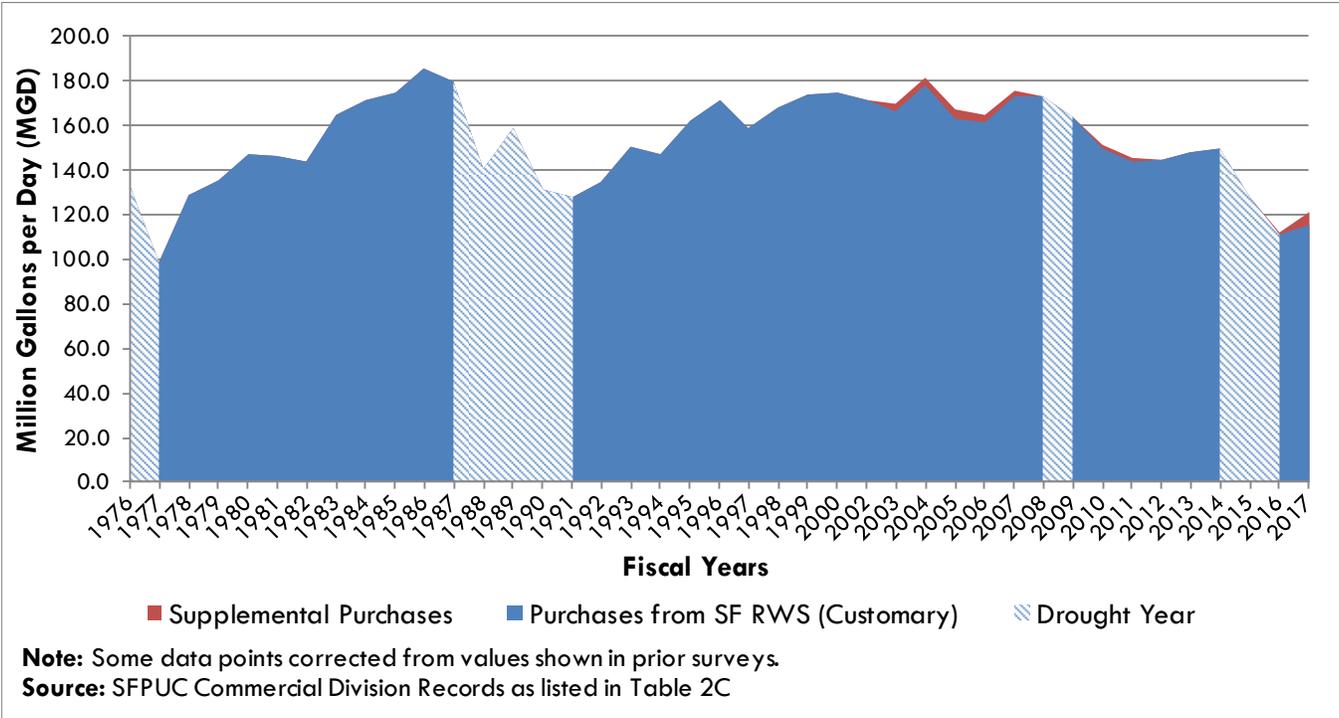
**Table 1: BAWSCA Members Summary – FY 2016-17**

	Service Population	Water Purchased / Produced (mgd)		Communities Served (all or portions of)
		SF RWS	Total	
<b>San Mateo County</b>				
City of Brisbane / Guadalupe Valley Municipal Improvement District	4,156	0.60	0.60	Brisbane, nearby unincorporated areas, and GVMID, an industrial park and small residential community within the City of Brisbane
City of Burlingame	31,109	3.26	3.56	City of Burlingame, and nearby unincorporated areas
California Water Service Company Bear Gulch District, Mid-Peninsula District, South San Francisco District	257,737	24.29	26.45	Atherton, Colma, Daly City, Los Altos, Menlo Park, Portola Valley, parts of unincorporated Redwood City, San Carlos, San Mateo, South San Francisco, Woodside and nearby unincorporated areas
CalWater-BG	60,513	8.44	9.24	
CalWater-MP	135,455	11.35	11.35	
CalWater-SSF	61,769	4.50	5.87	
Coastside County Water District	16,704	1.06	1.67	Half Moon Bay, Princeton by the Sea, Miramar, and El Granada
City of Daly City	109,139	3.83	6.49	Daly City and nearby unincorporated areas
City of East Palo Alto	26,181	1.51	1.51	City of East Palo Alto, Menlo Park, and nearby unincorporated areas
Estero Municipal Improvement District	37,518	3.84	3.84	Foster City and small parts of San Mateo
Town of Hillsborough	10,869	2.33	2.33	Hillsborough and nearby unincorporated areas
City of Menlo Park	16,066	2.36	2.36	Menlo Park west of Altschul Avenue and east of El Camino Real
Mid-Peninsula Water District	26,924	2.32	2.32	Belmont, San Carlos, and nearby unincorporated areas
City of Millbrae	22,848	1.88	1.91	Millbrae and nearby unincorporated areas
North Coast County Water District	40,000	2.23	2.26	Pacifica and nearby unincorporated areas
City of Redwood City	87,023	7.83	8.43	Redwood City, parts of San Carlos and Woodside, and nearby unincorporated areas
City of San Bruno	44,409	0.79	2.93	San Bruno and nearby unincorporated areas
Westborough Water District	14,050	0.73	0.73	Parts of South San Francisco, Daly City, and nearby unincorporated areas
<b>Subtotal</b>	<b>744,733</b>	<b>58.87</b>	<b>67.41</b>	
<b>Santa Clara County</b>				
City of Milpitas	77,528	4.90	8.52	Milpitas and portions of San Jose
City of Mountain View	77,801	7.14	8.45	Mountain View and nearby unincorporated areas
City of Palo Alto	66,930	8.98	9.57	Palo Alto and nearby unincorporated areas
Purissima Hills Water District	6,150	1.41	1.41	Los Altos Hills, parts of Los Altos, and nearby unincorporated areas
San Jose Municipal Water District	13,733	4.15	4.77	North San Jose/Alviso and nearby unincorporated areas
City of Santa Clara	123,752	1.99	18.73	Santa Clara and nearby unincorporated areas
Stanford University	31,558	1.42	2.35	Stanford University
City of Sunnyvale	149,831	8.33	15.87	Sunnyvale and nearby unincorporated areas
<b>Subtotal</b>	<b>547,283</b>	<b>38.33</b>	<b>69.69</b>	
<b>Alameda County</b>				
Alameda County Water District	350,538	6.31	34.81	Union City, Newark, Fremont and nearby unincorporated areas
City of Hayward	158,985	12.87	12.87	Hayward and nearby unincorporated areas
<b>Subtotal</b>	<b>509,523</b>	<b>19.19</b>	<b>47.68</b>	
<b>Total All Agencies</b>	<b>1,801,539</b>	<b>116.39</b>	<b>184.78</b>	
<b>Source: BAWSCA FY 2016-17 Annual Survey</b>				

## 2. Past and Current Purchases from SF RWS



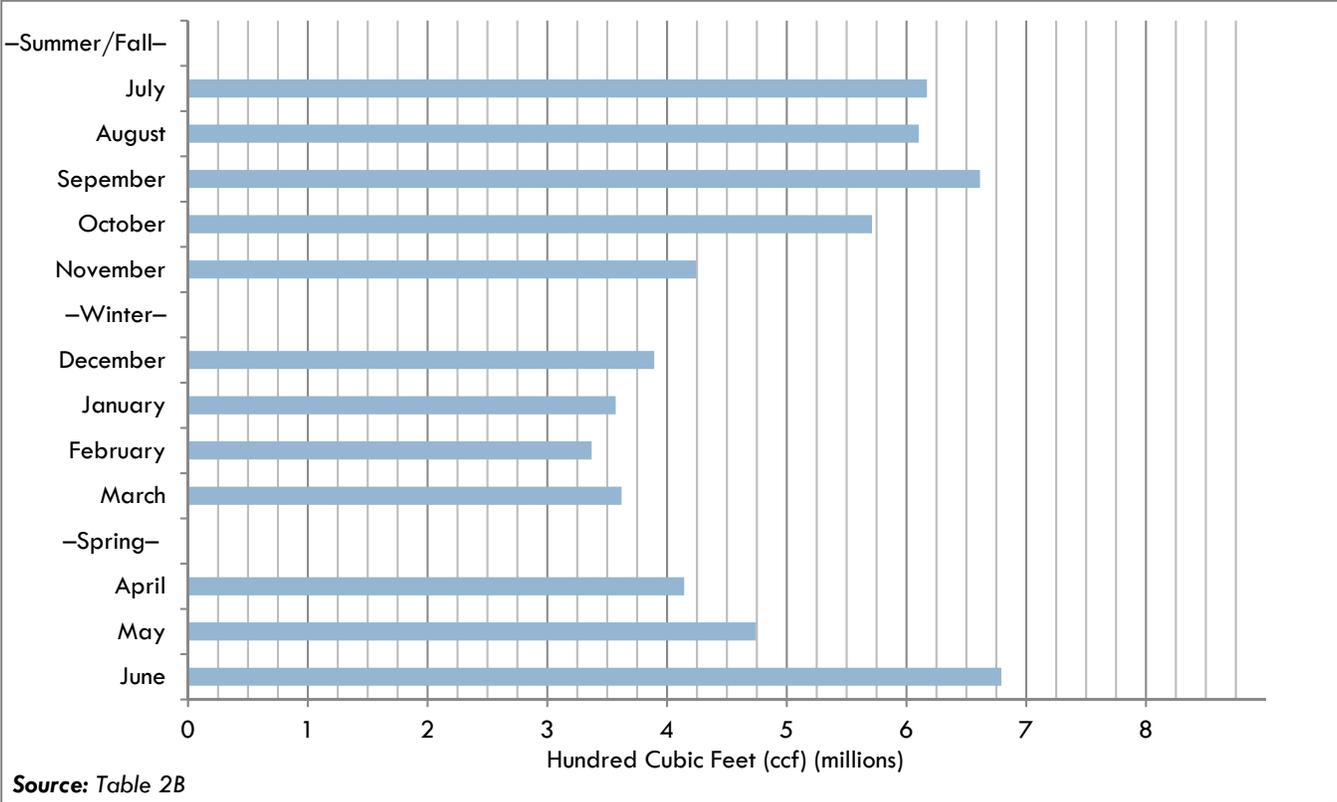
Figure 2A: Past and Current Purchases from SF RWS



**Table 2A: Past and Current Purchases from SF RWS and Relationship to Supply Guarantee (in ccf)  
(Excluding Supplemental Purchases)**

Member	Supply Guarantee	mgd Equiv	Predrought FY 1986-87	mgd Equiv	Actual FY 2006-07	Actual FY 2007-08	Actual FY 2008-09	Actual FY 2009-10	Actual FY 2010-11	Actual FY 2011-12	Actual FY 2012-13	Actual FY 2013-14	Actual FY 2014-15	Actual FY 2015-16	Actual FY 2016-17	mgd Equiv	2016-17/	2016-17
																	% Change	Purchases as % of Guarantee
<b>San Mateo County</b>																		
* Brisbane **	224,435	0.46	171,507	0.35	148,937	182,661	179,743	123,803	275,934	280,650	287,290	302,776	280,029	257,414	294,756	0.60	14.5	61.6
* Burlingame	2,553,753	5.23	2,531,707	5.19	2,209,757	2,195,474	2,086,616	1,920,815	1,971,599	2,012,282	1,952,965	2,001,619	1,791,539	1,505,779	1,592,044	3.26	5.7	62.3
California Water Service ***	17,320,807	35.50	17,393,987	35.65	18,279,882	18,414,636	17,561,079	15,815,998	15,668,088	16,101,764	15,212,752	16,361,264	13,839,271	11,584,178	11,851,282	24.29	2.3	68.4
Coastside CWD	1,061,453	2.18	600,257	1.23	1,006,844	1,014,105	977,849	887,675	806,110	832,099	885,896	940,214	727,298	575,225	515,655	1.85	-10.4	48.6
Daly City	2,094,386	4.29	2,264,684	4.64	1,747,221	2,187,273	2,113,320	1,542,719	1,405,560	1,811,358	1,955,442	1,713,514	1,654,762	2,152,800	1,867,312	3.83	-13.3	89.2
* East Palo Alto	1,445,747	2.96	1,041,989	2.14	976,874	996,587	938,045	842,883	863,282	907,662	1,008,253	723,320	768,310	690,728	734,911	1.51	6.4	50.8
* Estero MID	2,878,807	5.90	2,854,051	5.85	2,747,662	2,691,080	2,509,929	2,392,839	2,274,588	1,966,984	2,000,497	1,942,333	1,930,526	1,768,029	1,874,751	3.84	6.0	65.1
* Guadalupe Valley MID	254,436	0.52	155,074	0.32	115,901	130,485	122,888	152,798										
* Hillsborough	1,995,644	4.09	1,996,150	4.09	1,786,177	1,893,039	1,743,929	1,470,409	1,461,935	1,580,857	1,609,532	1,599,812	1,226,777	1,050,944	1,139,003	2.33	8.4	57.1
Los Trancos			34,848	0.07														
* Menlo Park	2,174,231	4.46	1,958,458	4.01	1,735,075	1,857,088	1,628,275	1,556,801	1,533,788	1,621,745	1,584,636	1,724,965	1,287,136	1,074,516	1,153,760	2.36	7.4	53.1
* Mid-Peninsula WD	1,898,707	3.89	1,888,074	3.87	1,652,208	1,583,791	1,533,876	1,390,831	1,404,933	1,437,360	1,453,047	1,408,109	1,209,300	1,076,654	1,134,389	2.32	5.4	59.7
* Millbrae	1,538,120	3.15	1,528,426	3.13	1,194,450	1,199,327	1,168,008	1,094,867	1,075,971	1,034,254	1,113,147	1,134,741	991,049	899,785	918,695	1.88	2.1	59.7
* North Coast CWD	1,872,928	3.84	1,618,649	3.32	1,418,174	1,582,423	1,632,364	1,471,838	1,585,572	1,380,360	1,192,485	1,387,578	1,360,780	900,293	1,089,419	2.23	21.0	58.2
* Redwood City	5,333,115	10.93	5,253,772	10.77	5,694,374	5,711,397	5,048,309	4,689,257	4,462,944	4,420,594	4,747,255	4,407,672	3,789,370	3,508,414	3,820,098	7.83	8.9	71.6
San Bruno	1,583,899	3.25	1,748,600	3.58	906,722	968,953	925,521	735,442	775,910	1,017,925	946,503	779,582	584,392	637,586	383,693	0.79	-39.8	24.2
Skyline			62,726	0.13	80,966	76,864												
* Westborough WD	644,172	1.32	585,151	1.20	532,529	457,299	485,493	394,878	408,487	440,796	441,233	433,980	377,034	390,753	356,722	0.73	-8.7	55.4
<b>Subtotal</b>	<b>44,874,640</b>	<b>91.96</b>	<b>43,688,110</b>	<b>89.53</b>	<b>42,233,753</b>	<b>43,142,482</b>	<b>40,655,244</b>	<b>36,483,853</b>	<b>35,974,701</b>	<b>36,846,690</b>	<b>36,390,933</b>	<b>36,861,479</b>	<b>31,817,573</b>	<b>28,073,098</b>	<b>28,726,490</b>	<b>58.87</b>	<b>2.3</b>	<b>64.0</b>
<b>Santa Clara County</b>																		
Milpitas	4,504,533	9.23	4,370,757	8.96	3,363,685	3,346,012	3,373,223	3,044,020	2,954,096	3,060,055	3,115,000	3,194,000	2,503,640	2,215,396	2,391,431	4.90	7.9	53.1
Mountain View	6,079,714	12.46	6,435,554	13.19	5,349,361	5,074,103	4,788,905	4,332,561	4,162,626	4,346,523	4,389,474	4,373,263	3,611,194	3,305,780	3,485,016	7.14	5.4	57.3
* Palo Alto	8,331,697	17.07	8,009,767	16.41	6,361,100	6,205,790	5,677,018	5,362,816	5,440,236	5,561,559	5,547,735	5,600,519	4,723,751	4,006,084	4,382,560	8.98	9.4	52.6
* Purissima Hills	792,832	1.62	755,077	1.55	1,112,291	1,124,922	980,987	854,854	839,360	899,221	972,733	982,100	803,313	640,369	689,261	1.41	7.6	86.9
San Jose	0	0.00	1,541,153	3.16	2,321,769	2,394,495	2,185,349	1,998,932	2,035,953	2,172,405	2,173,663	2,272,262	2,151,905	1,997,596	2,024,785	4.15	1.4	n/a
San Clara	0	0.00	2,429,766	4.98	2,106,452	1,618,029	1,307,380	1,105,658	1,055,675	910,029	1,118,315	1,012,567	914,572	1,135,829	970,987	1.99	-14.5	n/a
Stanford	1,479,764	3.03	1,485,396	3.04	1,112,857	1,125,377	1,045,886	1,043,864	1,035,726	1,051,794	1,024,012	1,024,277	923,813	679,394	695,088	1.42	2.3	47.0
Sunnyvale	6,138,122	12.58	7,228,076	14.81	4,505,138	5,072,437	5,181,026	4,771,741	4,043,548	4,436,721	4,526,510	4,046,527	3,874,640	3,894,246	4,066,178	8.33	4.4	66.2
<b>Subtotal</b>	<b>27,326,662</b>	<b>56.00</b>	<b>32,255,546</b>	<b>66.10</b>	<b>26,232,653</b>	<b>25,961,165</b>	<b>24,539,774</b>	<b>22,514,446</b>	<b>21,567,221</b>	<b>22,438,307</b>	<b>22,867,442</b>	<b>22,505,515</b>	<b>19,506,828</b>	<b>17,874,694</b>	<b>18,705,306</b>	<b>38.33</b>	<b>4.6</b>	<b>68.5</b>
<b>Alameda County</b>																		
Alameda CWD	6,714,439	13.76	6,039,273	12.38	6,667,959	6,534,358	5,477,714	5,102,005	3,825,797	4,052,940	4,371,390	5,684,760	3,770,320	3,037,166	3,081,217	6.31	1.5	45.9
* Hayward 1	6,281,522	12.87	8,504,158	17.43	8,901,286	9,434,134	9,105,654	8,511,066	8,308,740	7,610,980	7,552,956	7,402,067	6,634,616	5,979,616	6,281,522	12.87	5.0	100.0
Residual 1	4,588,833	9.40																
<b>Subtotal</b>	<b>17,584,794</b>	<b>36.04</b>	<b>14,543,431</b>	<b>29.80</b>	<b>15,569,245</b>	<b>15,968,492</b>	<b>14,583,368</b>	<b>13,613,071</b>	<b>12,134,537</b>	<b>11,663,920</b>	<b>11,924,346</b>	<b>13,086,827</b>	<b>10,404,936</b>	<b>9,016,782</b>	<b>9,362,739</b>	<b>19.19</b>	<b>3.8</b>	<b>53.2</b>
<b>Total</b>	<b>89,786,096</b>	<b>184.00</b>	<b>90,487,087</b>	<b>185.44</b>	<b>84,035,651</b>	<b>85,072,140</b>	<b>79,778,386</b>	<b>72,611,370</b>	<b>69,676,459</b>	<b>70,948,917</b>	<b>71,182,721</b>	<b>72,453,821</b>	<b>61,729,337</b>	<b>54,964,574</b>	<b>56,794,535</b>	<b>116.39</b>	<b>3.3</b>	<b>63.3</b>
<b>mgd equiv</b>	<b>184.00</b>		<b>185.44</b>		<b>172.22</b>	<b>174.34</b>	<b>163.49</b>	<b>148.80</b>	<b>142.79</b>	<b>145.40</b>	<b>145.88</b>	<b>148.48</b>	<b>126.50</b>	<b>112.64</b>	<b>116.39</b>			
<b>Total w/o SC&amp;SJ</b>	<b>89,786,096</b>		<b>86,516,168</b>		<b>79,607,430</b>	<b>81,059,616</b>	<b>76,285,657</b>	<b>69,506,780</b>	<b>66,584,830</b>	<b>67,866,483</b>	<b>67,890,743</b>	<b>69,168,992</b>	<b>58,662,860</b>	<b>51,831,149</b>	<b>53,798,763</b>	<b>110.25</b>	<b>3.8</b>	<b>59.9</b>
<b>mgd equiv</b>	<b>184.00</b>		<b>177.30</b>		<b>163.14</b>	<b>166.12</b>	<b>156.33</b>	<b>142.44</b>	<b>136.45</b>	<b>139.08</b>	<b>139.13</b>	<b>141.75</b>	<b>120.22</b>	<b>106.22</b>	<b>110.25</b>			
* Agencies receiving 100% of their supply from the SF RWS. ** Inclusive of Guadalupe Valley MID beginning in FY 2010-11. *** Inclusive of Bear Gulch, Mid-Peninsula, and South San Francisco districts.																		
1 Hayward has a unique contract that does not place quantified limits on their purchases from SF RWS. For reporting purposes here, the "supply guarantee" shown for Hayward is their current year purchase (FY 2016-17). The "Residual" total is a calculated number to bring the total to 184 mgd.																		
Note: Some agencies purchase SF RWS water which is then conveyed to a neighboring agency. The receiving agency is credited with this purchase; the transferring agency debited. This does not include the specific purchase of water by the City of San Bruno from North Coast County Water District or the specific purchase of water by the City of Menlo Park from the City of East Palo Alto.																		
Note: Beginning in 2002, Daly City, CWS-South San Francisco, and San Bruno began participating in a pilot conjunctive use program whereby surplus surface water was purchased in lieu of groundwater pumping. Additional surface water supplies are utilized in lieu of groundwater pumping when available. Values shown above exclude supplemental water purchases.																		
Note: In June 2017, Mountain View transferred 1 mgd of Supply Guarantee to East Palo Alto. The Supply Guarantee in the above table reflects this transfer.																		

**Figure 2B: Monthly/Seasonal Purchases from SF RWS among BAWSCA Members – FY 2016-17**



**Table 2B: Monthly/Seasonal Purchases from SF RWS Among BAWSCA Members – FY 2016-17 (in ccf)**  
**SFPUC Commercial Division Records Data<sup>1</sup>**

Member	Summer/Fall						Winter					Spring			Year				
	July	Aug	Sept	Oct	Nov	Total	Dec	Jan	Feb	March	Total	April	May	June	Total	Total	mgd		
* Alameda CWD	249,470	202,471	172,856	196,906	128,757	<b>950,460</b>	124,019	86,763	159,221	357,073	<b>727,076</b>	250,869	500,357	610,960	<b>1,362,186</b>	3,039,722	6.23		
Brisbane	15,978	14,384	16,706	16,544	13,184	<b>76,796</b>	12,653	14,064	11,028	10,162	<b>47,907</b>	12,011	12,750	17,730	<b>42,491</b>	167,194	0.34		
Burlingame	163,845	154,386	180,921	147,599	113,613	<b>760,364</b>	112,796	106,268	96,638	99,211	<b>414,913</b>	115,570	115,892	171,511	<b>402,973</b>	1,578,250	3.23		
* CWS - Bear Gulch	578,472	546,115	676,212	477,075	243,567	<b>2,521,441</b>	202,808	175,804	89,420	98,132	<b>566,164</b>	162,180	292,741	557,592	<b>1,012,512</b>	4,100,117	8.40		
CWS - Mid Peninsula	604,945	525,827	633,441	589,553	370,011	<b>2,723,777</b>	404,080	329,428	342,374	331,392	<b>1,407,275</b>	384,284	417,492	649,929	<b>1,451,705</b>	5,582,756	11.44		
* CWS - South SF 2	257,582	260,571	300,684	251,914	232,894	<b>1,303,645</b>	234,273	203,197	194,014	206,413	<b>837,897</b>	217,264	199,006	280,641	<b>696,911</b>	2,838,453	5.82		
* Coastside CWD	68,203	64,979	73,514	58,631	65,275	<b>331,052</b>	38,634	21,306	19,587	18,602	<b>98,129</b>	17,286	36,365	41,510	<b>95,161</b>	524,342	1.07		
* Daly City 2	271,584	241,220	267,840	248,135	233,265	<b>1,262,044</b>	225,214	256,985	215,211	217,321	<b>914,731</b>	250,460	218,854	246,342	<b>715,656</b>	2,892,431	5.93		
East Palo Alto	73,096	66,627	73,425	61,910	54,011	<b>329,069</b>	54,456	55,230	48,134	51,351	<b>209,171</b>	58,506	61,022	77,143	<b>196,671</b>	734,911	1.51		
Estero MID	209,174	194,581	224,548	178,164	111,308	<b>917,775</b>	128,507	114,174	99,743	97,612	<b>440,036</b>	124,869	150,356	236,648	<b>511,873</b>	1,869,684	3.83		
Guadalupe Valley MID	12,979	11,389	13,513	12,436	9,944	<b>60,261</b>	10,247	8,330	5,438	7,042	<b>31,057</b>	8,666	7,041	10,974	<b>26,681</b>	117,999	0.24		
Hayward	583,462	606,896	684,081	555,452	463,774	<b>2,893,665</b>	458,928	447,176	364,247	458,644	<b>1,728,995</b>	457,295	494,812	706,755	<b>1,658,862</b>	6,281,522	12.87		
Hillsborough	158,511	151,191	177,923	139,460	58,322	<b>685,407</b>	53,000	36,566	36,100	36,774	<b>162,440</b>	48,410	72,731	156,876	<b>278,017</b>	1,125,864	2.31		
Menlo Park	150,116	134,354	138,682	111,291	72,146	<b>606,589</b>	65,632	53,550	51,683	57,562	<b>228,427</b>	72,214	101,385	151,051	<b>324,650</b>	1,159,666	2.38		
Mid-Peninsula WD	113,937	131,990	120,860	110,244	77,031	<b>554,062</b>	71,379	73,234	70,010	70,855	<b>285,478</b>	75,095	94,510	127,239	<b>296,844</b>	1,136,384	2.33		
Millbrae	100,456	92,253	107,423	83,651	62,383	<b>446,166</b>	66,274	63,828	56,281	56,674	<b>243,057</b>	64,910	65,305	99,257	<b>229,472</b>	918,695	1.88		
* Milpitas	220,524	246,874	250,888	242,688	185,725	<b>1,146,699</b>	157,085	185,001	176,065	137,048	<b>655,197</b>	176,617	159,560	223,169	<b>559,346</b>	2,361,244	4.84		
* Mountain View	340,851	370,375	381,680	368,766	273,877	<b>1,735,549</b>	218,939	229,726	204,369	183,409	<b>836,443</b>	243,233	224,229	335,272	<b>802,734</b>	3,374,726	6.92		
* North Coast CWD	94,959	98,849	96,522	97,420	89,740	<b>477,490</b>	87,278	82,426	83,293	75,967	<b>328,964</b>	83,067	88,148	101,307	<b>272,522</b>	1,078,976	2.21		
Palo Alto	512,080	488,699	512,010	352,556	325,419	<b>2,190,764</b>	272,303	232,670	215,597	233,864	<b>954,434</b>	292,191	381,625	563,546	<b>1,237,362</b>	4,382,560	8.98		
Purissima Hills WD	88,110	100,611	95,254	94,983	54,367	<b>433,325</b>	30,320	23,788	20,759	18,018	<b>92,885</b>	29,951	38,724	83,974	<b>152,649</b>	678,859	1.39		
Redwood City	369,199	430,401	396,878	359,113	256,221	<b>1,811,812</b>	244,766	242,341	232,622	231,097	<b>950,826</b>	266,598	328,666	406,517	<b>1,001,781</b>	3,764,419	7.71		
* San Bruno 2	125,772	122,845	120,726	108,089	105,950	<b>583,382</b>	91,492	97,453	90,710	87,591	<b>367,246</b>	90,941	92,436	125,638	<b>309,015</b>	1,259,643	2.58		
* San Jose MWS-North	192,811	209,539	219,945	216,319	166,015	<b>1,004,629</b>	141,175	129,963	130,607	120,028	<b>521,773</b>	152,078	142,822	196,257	<b>491,157</b>	2,017,559	4.13		
* Santa Clara	99,098	98,119	97,912	90,823	62,436	<b>448,388</b>	71,246	50,640	81,061	68,562	<b>271,509</b>	88,645	82,579	87,805	<b>259,029</b>	978,926	2.01		
* Stanford University	75,318	71,272	74,712	66,920	50,456	<b>338,678</b>	39,992	42,358	40,621	45,274	<b>168,245</b>	48,034	59,798	80,333	<b>188,166</b>	695,089	1.42		
* Sunnyvale	411,421	439,357	466,414	441,973	339,354	<b>2,098,519</b>	243,019	177,853	216,951	216,858	<b>854,681</b>	324,440	280,956	407,428	<b>1,012,824</b>	3,966,024	8.13		
Westborough WD	28,735	25,737	39,011	34,399	23,682	<b>151,564</b>	32,932	32,068	19,787	29,165	<b>113,952</b>	27,585	23,013	39,371	<b>89,969</b>	355,485	0.73		
<b>Totals</b>	<b>6,170,688</b>	<b>6,101,912</b>	<b>6,614,581</b>	<b>5,713,014</b>	<b>4,243,177</b>	<b>28,843,372</b>	<b>3,893,447</b>	<b>3,572,190</b>	<b>3,371,571</b>	<b>3,621,701</b>	<b>14,458,909</b>	<b>4,143,269</b>	<b>4,743,175</b>	<b>6,792,775</b>	<b>15,679,219</b>	<b>58,981,500</b>	<b>120.87</b>		
<b>Seasonal Comparisons</b>																			
						<b>Summer/Fall</b>					<b>Winter</b>				<b>Spring</b>		<b>Year</b>		
						2006-07					2006-07				2006-07		22,498,624	85,779,136	175.79
						2007-08					2007-08				2007-08		23,073,285	84,618,323	173.41
						2008-09					2008-09				2008-09		19,172,178	80,034,009	164.01
						2009-10					2009-10				2009-10		16,469,283	73,920,589	151.49
						2010-11					2010-11				2010-11		16,303,549	71,165,207	145.84
						2011-12					2011-12				2011-12		16,953,589	70,630,209	144.74
						2012-13					2012-13				2012-13		19,027,049	72,190,436	147.94
						2013-14					2013-14				2013-14		17,488,648	73,050,233	149.70
						2014-15					2014-15				2014-15		14,502,045	62,477,367	128.04
						2015-16					2015-16				2015-16		14,124,948	54,487,870	111.66
						2016-17					2016-17				2016-17		15,679,219	58,981,500	120.87
						<b>Record Highs:</b>					1987-88				1986-87		25,083,000	1986-87	185.31
						<b>Record Lows:</b>					1983-84				1990-91		13,464,000	2015-16	111.66

<sup>1</sup> Data in this table is derived from SFPUC sales records, and since local agency customer meters are read throughout the month, figures reported here may not match agency purchase numbers shown in other parts of the survey or represent actual monthly use for the month shown (i.e., June figures could include partial May purchases depending on when meters are read).

<sup>2</sup> Beginning in FY 2002-03, these agencies began participating in a conjunctive use study with the SFPUC. Additional surface water supplies are utilized in lieu of groundwater pumping when available. Impacts to the groundwater basin are being monitored. Totals shown include supplemental purchases for Daly City, CWS - South SF, and San Bruno. See Table 2D.

\* Agency has other sources besides SF RWS.

Source: SFPUC Commercial Division Records

**Table 2C: Historical SF RWS Wholesale Water Purchases by BAWUA/BAWSCA Agencies\*  
FY 1930-31 to Present**

Year	ccf	mgd	acre feet	% Change	Year	ccf	mgd	acre feet	% Change
1930-31	1,512,700	3.1	3,473		1970-71	64,753,340	132.7	148,653	-4.5
1931-32	1,366,310	2.8	3,137	-9.7	1971-72	69,486,629	142.4	159,519	7.3
1932-33	1,317,513	2.7	3,025	-3.6	1972-73	65,046,121	133.3	149,325	-6.4
1933-34	1,268,717	2.6	2,913	-3.7	1973-74	68,705,880	140.8	157,727	5.6
1934-35	1,171,123	2.4	2,689	-7.7	1974-75	71,145,722	145.8	163,328	3.6
1935-36	1,219,920	2.5	2,801	4.2	1975-76	75,147,059	154.0	172,514	5.6
1936-37	1,659,091	3.4	3,809	36.0	1976-77	65,143,717	133.5	149,549	-13.3
1937-38	2,439,840	5.0	5,601	47.1	1977-78	48,113,636	98.6	110,454	-26.1
1938-39	3,122,995	6.4	7,169	28.0	1978-79	62,899,064	128.9	144,396	30.7
1939-40	4,391,711	9.0	10,082	40.6	1979-80	66,558,824	136.4	152,798	5.8
1940-41	3,562,166	7.3	8,178	-18.9	1980-81	72,463,235	148.5	166,353	8.9
1941-42	3,757,353	7.7	8,626	5.5	1981-82	71,828,877	147.2	164,896	-0.9
1942-43	4,196,524	8.6	9,634	11.7	1982-83	70,950,535	145.4	162,880	-1.2
1943-44	5,562,834	11.4	12,771	32.6	1983-84	79,441,176	162.8	182,372	12.0
1944-45	8,734,625	17.9	20,052	57.0	1984-85	82,759,358	169.6	189,989	4.2
1945-46	8,393,048	17.2	19,268	-3.9	1985-86	83,149,733	170.4	190,886	0.5
1946-47	9,076,203	18.6	20,836	8.1	1986-87	90,176,471	184.8	207,017	8.5
1947-48	9,612,968	19.7	22,068	5.9	1987-88	88,273,396	180.9	202,648	-2.1
1948-49	9,710,561	19.9	22,292	1.0	1988-89	67,241,979	137.8	154,366	-23.8
1949-50	9,564,171	19.6	21,956	-1.5	1989-90	78,221,257	160.3	179,571	16.3
1950-51	11,223,262	23.0	25,765	17.3	1990-91	64,509,358	132.2	148,093	-17.5
1951-52	12,784,759	26.2	29,350	13.9	1991-92	61,191,176	125.4	140,476	-5.1
1952-53	14,590,240	29.9	33,495	14.1	1992-93	64,899,733	133.0	148,989	6.1
1953-54	17,176,470	35.2	39,432	17.7	1993-94	72,707,219	149.0	166,913	12.0
1954-55	21,763,368	44.6	49,962	26.7	1994-95	71,596,604	146.7	164,363	-1.5
1955-56	23,324,866	47.8	53,547	7.2	1995-96	79,502,660	162.9	182,513	11.0
1956-57	25,911,095	53.1	59,484	11.1	1996-97	83,211,705	170.5	191,028	4.7
1957-58	22,690,507	46.5	52,090	-12.4	1997-98	77,305,829	158.4	177,470	-7.1
1958-59	27,814,170	57.0	63,853	22.6	1998-99	82,214,786	168.5	188,739	6.4
1959-60	30,937,165	63.4	71,022	11.2	1999-00	84,647,794	173.5	194,325	3.0
1960-61	32,010,694	65.6	73,486	3.5	2000-01	85,327,533	174.9	195,885	0.8
1961-62	34,255,347	70.2	78,639	7.0	2001-02	83,562,066	171.2	191,832	-2.1
1962-63	38,256,683	78.4	87,825	11.7	2002-03	82,654,243	169.4	189,748	-1.1
1963-64	44,161,095	90.5	101,380	15.4	2003-04	88,480,297	181.3	203,123	7.0
1964-65	47,430,480	97.2	108,885	7.4	2004-05	81,672,866	167.4	187,495	-7.7
1965-66	52,700,533	108.0	120,984	11.1	2005-06	80,255,145	164.5	184,240	-1.7
1966-67	54,652,405	112.0	125,465	3.7	2006-07	85,779,136	175.8	196,922	6.9
1967-68	63,972,592	131.1	146,861	17.1	2007-08	84,618,323	173.4	194,257	-1.4
1968-69	61,630,346	126.3	141,484	-3.7	2008-09	80,034,009	164.0	183,733	-5.4
1969-70	67,778,741	138.9	155,599	10.0	2009-10	73,920,589	151.5	169,698	-7.6
					2010-11	71,165,207	145.8	163,373	-3.7
					2011-12	70,630,209	144.7	162,145	-0.8
					2012-13	72,190,436	147.9	165,726	2.2
					2013-14	73,050,233	149.7	167,700	1.2
					2014-15	62,477,367	128.0	143,428	-14.5
					2015-16	54,487,870	111.7	125,087	-12.8
					2016-17	58,981,500	120.9	135,403	8.2

\* These totals may differ slightly from other totals found in the survey due to source/rounding variables.

**Note:** The above totals are inclusive of supplemental water purchases. See Table 2D.

**Source:** SFPUC Commercial Division Records

**Table 2D: Supplemental SF RWS Water Purchases by Participating BAWSCA Agencies (in ccf)**

Year	CWS-South San Francisco	Daly City	San Bruno	Total ccf	Total mgd
2002-03	144,508	933,975	459,969	1,538,452	3.15
2003-04	167,334	774,615	482,564	1,424,513	2.92
2004-05	0	1,348,045	674,241	2,022,286	4.14
2005-06	0	1,479,323	0	1,479,323	3.03
2006-07	0	1,160,313	0	1,160,313	2.38
2007-08	0	0	0	0	0.00
2008-09	0	165,750	0	165,750	0.34
2009-10	0	904,856	0	904,856	1.85
2010-11	0	1,061,951	0	1,061,951	2.18
2011-12	0	0	0	0	0.00
2012-13	0	0	0	0	0.00
2013-14	0	0	0	0	0.00
2014-15	0	0	0	0	0.00
2015-16	38,981	146,803	83,663	269,447	0.55
2016-17	668,470	1,041,345	895,413	2,605,228	5.34

Starting in FY 2002-03, Cal Water (South San Francisco), Daly City, and San Bruno participated in a pilot conjunctive use program whereby surplus SF RWS water was purchased (at a reduced rate) in lieu of pumping that same amount of water from the groundwater basin.

This program increases storage levels in the groundwater basin during times surplus water is available thereby making groundwater available to the regional system during dry periods when SF RWS water may be in short supply. As shown above, in FY 2007-08 and FY 2008-09 Daly City made little or no supplemental purchases, indicative of relatively dry years. Daly City's supplemental purchases increased in FY 2010-11, indicative of a wetter year. No supplemental purchases were made in FY 2011-12, FY 2012-13, FY 2013-14, or FY 2014-15 due to dry conditions.

**Source:** BAWSCA FY 2016-17 Annual Survey

### 3. Total Water Supply and Demand



**Table 3A: Historical Total Water Use by BAWSCA Agency (in ccf)  
Inclusive of unaccounted for water and supplemental purchases**

Member	FY 2004-05	FY 2005-06	FY 2006-07	FY 2007-08	FY 2008-09	FY 2009-10	FY 2010-11	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	mgd	
<b>San Mateo County</b>															
Brisbane / GVMID	175,335	191,963	200,437	182,661	179,743	123,803	275,934	280,650	287,290	302,776	280,029	257,414	294,756	0.60	
Burlingame	2,205,818	2,121,360	2,209,757	2,195,474	2,086,616	1,920,815	2,117,999	2,158,682	2,099,365	2,148,019	1,937,939	1,652,167	1,738,444	3.56	
CWS - Bear Gulch	5,783,871	5,925,540	6,673,025	6,867,205	6,413,044	5,762,738	5,794,705	6,004,849	6,116,162	6,259,793	5,267,634	4,194,432	4,506,722	9.24	
CWS - Mid Peninsula	7,738,445	7,945,376	8,085,040	7,813,188	7,621,387	7,062,049	6,956,546	6,905,680	6,046,107	6,956,723	6,016,058	5,325,284	5,539,001	11.35	
CWS - South SF	4,234,118	3,886,698	4,052,652	4,035,772	3,927,339	3,689,071	3,731,044	3,682,415	3,620,826	3,616,258	3,270,666	2,944,723	2,862,074	5.87	
Coastside CWD	1,171,523	1,111,523	1,263,875	1,202,915	1,055,296	986,484	894,746	896,631	996,377	997,259	877,579	817,339	812,567	1.67	
Cordilleras							Not BAWSCA Member								
Daly City	3,697,158	3,331,582	3,490,594	3,731,419	3,553,600	3,270,878	3,093,734	3,364,817	3,512,566	3,349,433	2,895,051	3,141,794	3,167,719	6.49	
East Palo Alto	751,516	927,742	976,874	996,587	938,629	842,883	863,282	907,662	1,010,939	720,040	766,380	690,728	730,899	1.50	
Estero MID	2,542,371	2,531,846	2,747,662	2,691,080	2,538,289	2,392,839	2,274,588	1,966,984	2,000,497	1,942,333	1,930,526	1,768,029	1,874,751	3.84	
Guadalupe Valley MID	151,270	130,538	115,901	130,485	122,888	152,798			Included with Brisbane						
Hillsborough	1,657,074	1,936,854	1,630,593	1,665,884	1,786,177	1,893,039	1,743,929	1,470,409	1,609,532	1,599,812	1,226,777	1,050,944	1,139,003	2.33	
Los Trancos							Included with CWS-Bear Gulch								
Menlo Park	1,713,701	1,688,803	1,735,075	1,857,088	1,628,275	1,556,801	1,533,788	1,621,745	1,584,636	1,729,399	1,287,136	1,074,516	1,153,760	2.36	
Mid-Peninsula WD	1,602,472	1,434,648	1,652,208	1,583,791	1,533,876	1,390,831	1,404,933	1,437,360	1,453,047	1,408,109	1,209,300	1,076,654	1,134,389	2.32	
Millbrae	1,191,005	1,291,729	1,194,450	1,199,327	1,179,720	1,101,551	1,087,971	1,046,254	1,125,147	1,146,741	1,003,049	899,785	930,695	1.91	
North Coast CWD	1,652,192	1,579,110	1,538,215	1,582,423	1,632,364	1,471,838	1,585,572	1,380,360	1,192,485	1,392,872	1,364,900	914,081	1,105,206	2.26	
Redwood City	5,436,566	5,315,929	5,701,245	5,823,781	5,091,014	4,891,124	4,734,338	4,719,085	5,057,308	4,730,885	4,099,699	3,790,431	4,114,869	8.43	
San Bruno	1,171,626	1,868,846	1,821,102	1,908,564	1,877,662	1,780,704	1,771,040	1,770,007	1,752,095	1,747,722	1,529,900	1,519,903	1,429,544	2.93	
Skyline	71,748	76,938	80,966	76,864			Included with CWS-Bear Gulch								
Westborough WD	531,903	459,831	532,529	457,299	485,493	394,878	408,487	440,796	441,233	433,980	377,034	390,753	356,722	0.73	
<b>Subtotal</b>	<b>43,479,713</b>	<b>43,756,856</b>	<b>45,702,200</b>	<b>46,001,808</b>	<b>43,651,411</b>	<b>40,685,124</b>	<b>40,272,636</b>	<b>40,054,386</b>	<b>39,905,612</b>	<b>40,482,154</b>	<b>35,339,657</b>	<b>31,508,977</b>	<b>32,891,121</b>	<b>67.40</b>	
<b>mgd</b>	<b>89.10</b>	<b>89.67</b>	<b>93.66</b>	<b>94.27</b>	<b>89.46</b>	<b>83.38</b>	<b>82.53</b>	<b>82.08</b>	<b>81.78</b>	<b>82.96</b>	<b>72.42</b>	<b>64.57</b>	<b>67.40</b>		
<b>Santa Clara County</b>															
Milpitas	5,320,838	5,400,800	5,505,034	5,548,937	5,470,765	4,878,858	4,835,475	4,937,407	4,975,000	4,908,500	4,462,023	4,030,280	4,159,187	8.52	
Mountain View	5,730,268	5,750,554	6,116,445	5,774,334	5,547,956	5,080,734	5,025,675	5,232,110	5,234,742	5,263,373	4,435,583	3,854,816	4,125,019	8.45	
Palo Alto	6,236,965	6,180,611	6,778,100	6,620,815	6,001,341	5,715,348	5,811,182	5,948,461	5,750,761	5,981,585	5,091,582	4,356,931	4,672,228	9.57	
Purissima Hills WD	980,472	964,747	1,112,291	1,124,922	980,987	854,854	839,360	899,221	972,733	982,100	803,313	640,369	689,261	1.41	
San Jose	2,360,722	2,362,632	2,569,248	2,674,031	2,437,246	2,187,918	2,239,892	2,356,648	2,354,211	2,676,663	2,521,675	2,391,807	2,325,602	4.77	
Santa Clara	11,278,162	11,540,998	12,007,298	11,782,654	10,852,916	10,139,329	10,197,067	10,575,495	10,798,039	10,757,505	9,768,702	8,817,463	9,141,873	18.73	
Stanford	1,571,164	1,446,902	1,576,978	1,722,672	1,573,920	1,545,411	1,558,914	1,604,702	1,624,555	1,553,272	1,396,374	1,073,556	1,148,562	2.35	
Sunnyvale	10,609,500	10,673,793	10,887,010	10,695,118	10,369,022	9,354,936	9,132,594	8,465,724	9,453,326	8,994,820	7,795,081	7,208,816	7,744,448	15.87	
<b>Subtotal</b>	<b>44,088,091</b>	<b>44,321,037</b>	<b>46,552,404</b>	<b>45,943,483</b>	<b>43,234,153</b>	<b>39,757,387</b>	<b>39,640,158</b>	<b>40,019,768</b>	<b>41,163,367</b>	<b>41,117,818</b>	<b>36,274,333</b>	<b>32,374,038</b>	<b>34,006,180</b>	<b>69.69</b>	
<b>mgd</b>	<b>90.35</b>	<b>90.83</b>	<b>95.40</b>	<b>94.15</b>	<b>88.60</b>	<b>81.48</b>	<b>81.24</b>	<b>82.01</b>	<b>84.36</b>	<b>84.26</b>	<b>74.34</b>	<b>66.34</b>	<b>69.69</b>		
<b>Alameda County</b>															
Alameda CWD	22,450,662	23,112,968	24,048,399	23,829,489	22,126,618	20,665,490	20,921,497	21,108,246	21,209,862	20,274,011	16,751,709	15,804,948	16,986,244	34.81	
Hayward	9,030,652	8,924,063	8,901,286	9,434,134	9,105,654	8,511,066	8,308,740	7,610,980	7,552,956	7,402,067	6,634,616	5,979,616	6,281,522	12.87	
<b>Subtotal</b>	<b>31,481,314</b>	<b>32,037,031</b>	<b>32,949,685</b>	<b>33,263,623</b>	<b>31,232,272</b>	<b>29,176,556</b>	<b>29,230,237</b>	<b>28,719,226</b>	<b>28,762,818</b>	<b>27,676,078</b>	<b>23,386,325</b>	<b>21,784,564</b>	<b>23,267,766</b>	<b>47.68</b>	
<b>mgd</b>	<b>64.52</b>	<b>65.65</b>	<b>67.52</b>	<b>68.17</b>	<b>64.00</b>	<b>59.79</b>	<b>59.90</b>	<b>58.85</b>	<b>58.94</b>	<b>56.72</b>	<b>47.93</b>	<b>44.64</b>	<b>47.68</b>		
<b>Total</b>	<b>119,049,118</b>	<b>120,114,923</b>	<b>125,204,289</b>	<b>125,208,913</b>	<b>118,117,836</b>	<b>109,619,067</b>	<b>109,143,031</b>	<b>108,793,380</b>	<b>109,831,797</b>	<b>109,276,050</b>	<b>95,000,315</b>	<b>85,667,579</b>	<b>90,165,067</b>	<b>184.78</b>	
<b>mgd</b>	<b>243.97</b>	<b>246.15</b>	<b>256.58</b>	<b>256.59</b>	<b>242.06</b>	<b>224.64</b>	<b>223.67</b>	<b>222.95</b>	<b>225.08</b>	<b>223.94</b>	<b>194.69</b>	<b>175.56</b>	<b>184.78</b>		
<b>% Change</b>	<b>-4.5</b>	<b>0.9</b>	<b>4.2</b>	<b>0.0</b>	<b>-5.7</b>	<b>-7.2</b>	<b>-0.4</b>	<b>-0.3</b>	<b>1.0</b>	<b>-0.5</b>	<b>-13.1</b>	<b>-9.8</b>	<b>5.2</b>		
<b>Note:</b> Totals inclusive of supplemental purchases.															
<b>Source:</b> BAWSCA Annual Surveys															

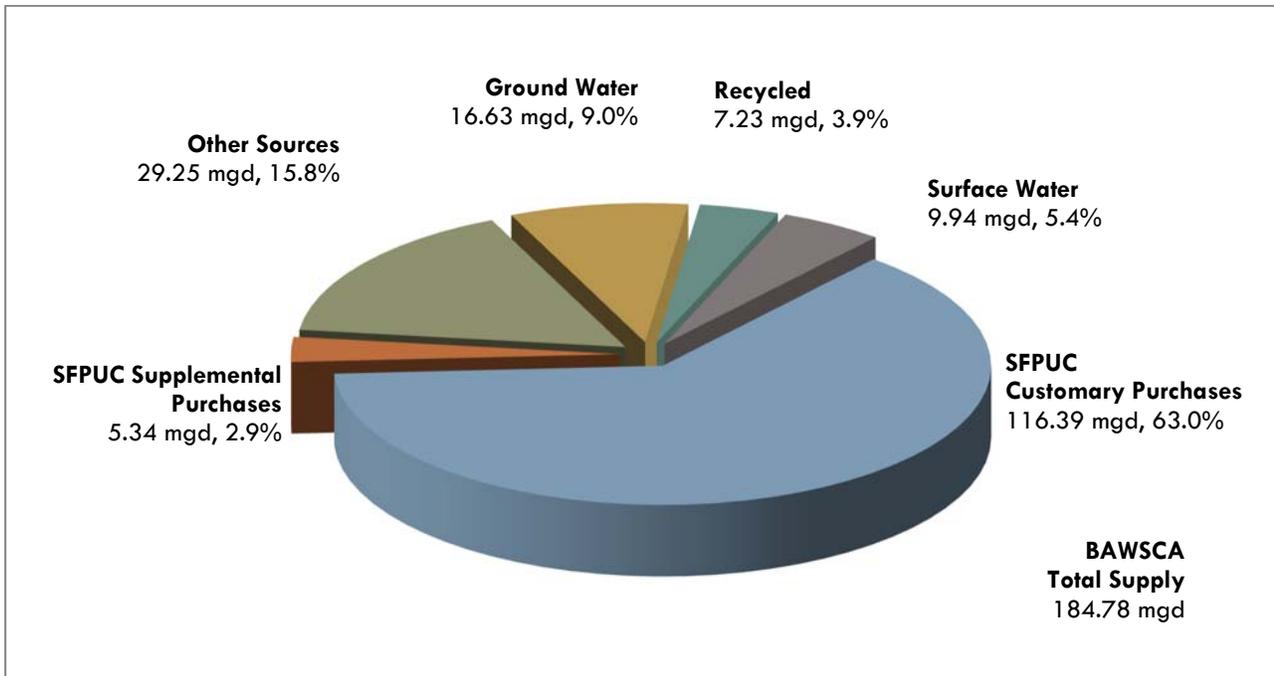
**Table 3B: Historical Total Water Use among  
BAWUA/BAWSCA Agencies\*  
1975-76 to Present**

Year	ccf	mgd	acre feet	% Change
1975-76	103,703,209	212.5	238,070	
1976-77	78,114,973	160.1	179,327	-24.7
1977-78	80,544,118	165.1	184,904	3.1
1978-79	90,148,396	184.7	206,952	11.9
1979-80	96,016,043	196.8	220,423	6.5
1980-81	101,655,080	208.3	233,368	5.9
1981-82	101,114,973	207.2	232,128	-0.5
1982-83	102,072,193	209.2	234,326	0.9
1983-84	114,223,262	234.1	262,221	11.9
1984-85	113,288,770	232.2	260,075	-0.8
1985-86	120,854,314	247.7	277,443	6.7
1986-87	127,159,730	260.6	291,919	5.2
1987-88	124,103,553	254.3	284,903	-2.4
1988-89	106,443,629	218.1	244,361	-14.2
1989-90	109,228,602	223.8	250,754	2.6
1990-91	99,723,401	204.4	228,933	-8.7
1991-92	96,016,663	196.8	220,424	-3.7
1992-93	99,696,012	204.3	228,871	3.8
1993-94	110,889,985	227.2	254,568	11.2
1994-95	107,889,859	221.1	247,681	-2.7
1995-96	119,077,619	244.0	273,365	10.4
1996-97	126,956,796	260.2	291,453	6.6
1997-98	118,081,751	242.0	271,078	-7.0
1998-99	124,630,030	255.4	286,111	5.5
1999-00	128,677,573	263.7	295,403	3.2
2000-01	128,905,099	264.2	295,925	0.2
2001-02	124,144,929	254.4	284,998	-3.7
2002-03	122,510,157	251.1	281,245	-1.3
2003-04	129,222,361	244.0	296,654	5.5
2004-05	119,049,118	246.2	273,299	-7.9
2005-06	120,114,923	256.6	275,746	0.9
2006-07	125,204,289	256.6	287,429	4.2
2007-08	125,208,913	242.1	287,440	0.0
2008-09	118,117,836	224.6	271,161	-5.7
2009-10	109,619,067	223.7	251,651	-7.2
2010-11	109,143,031	223.0	250,558	-0.4
2011-12	108,793,380	225.1	249,755	-0.3
2012-13	109,831,797	223.9	252,139	1.0
2013-14	109,276,050	194.7	250,863	-0.5
2014-15	95,000,315	175.6	218,091	-13.1
2015-16	85,667,579	184.8	196,666	-9.8
2016-17	90,165,067	184.8	206,991	5.2

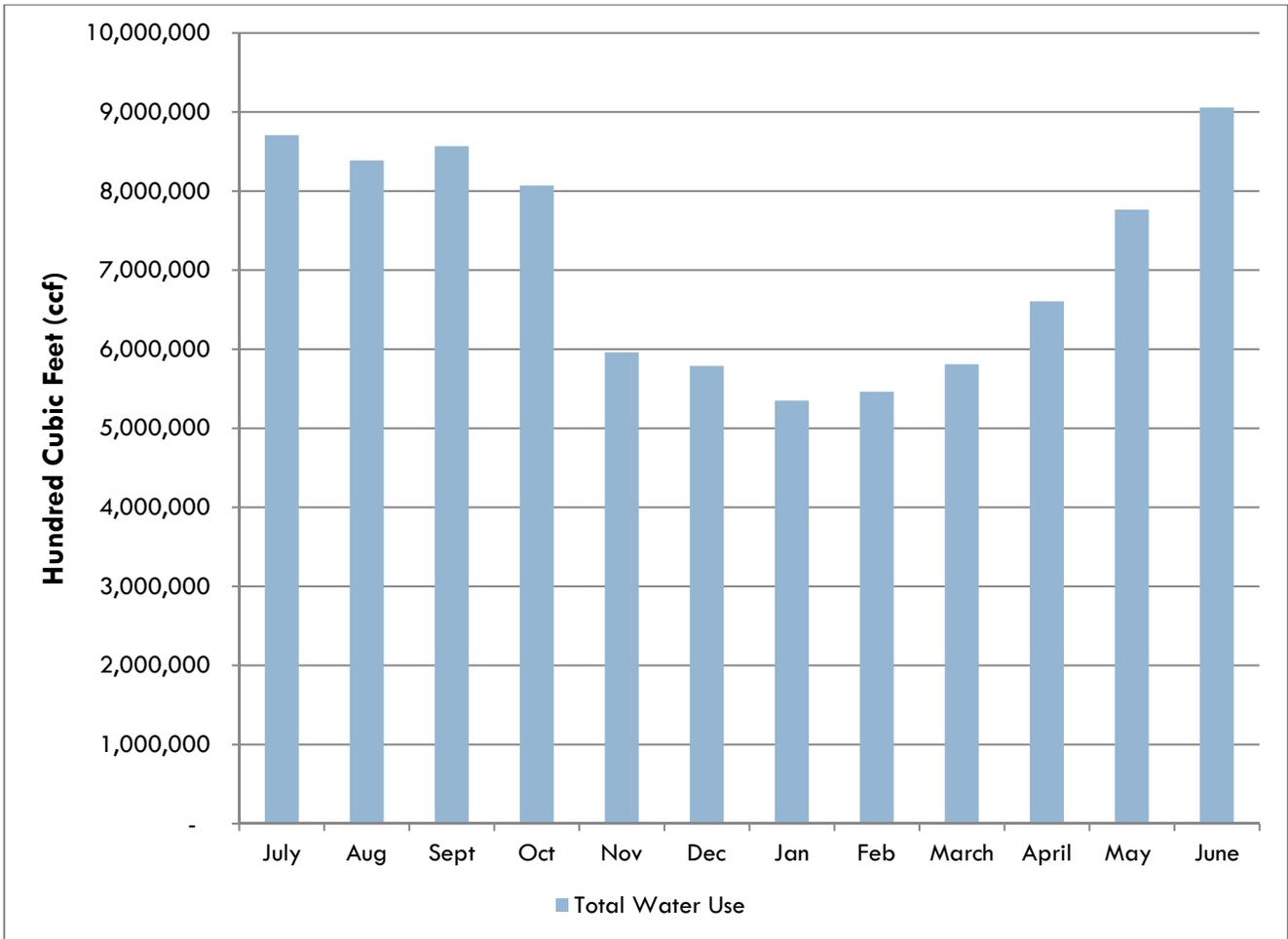
\*Inclusive of unaccounted for water and supplemental purchases (see Table 2D).

Source: BAWUA/BAWSCA Annual Surveys

Figure 3C: Water Use by Source of Supply – FY 2016-17



**Figure 3D: Total Monthly Water Use for All BAWSCA Agencies – FY 2016-17**



**Table 3C: Water Use by Source of Supply – FY 2016-17 (in ccf)**

Member	SF RWS Purchases			Local Sources (non-SF RWS)				Other Sources				Totals		
	Customary	Supplemental	% of Supply	Ground Water	% of Supply	Surface Water	% of Supply	Recycled Water	% of Supply	Other Sources	% of Supply	Total Supply	mgd Equiv	% of Total
<b>San Mateo County</b>														
Brisbane / GVMID	294,756	0	100.0%	0	0%	0	0%	0	0%	0	0.0%	294,756	0.60	0.33%
Burlingame	1,592,044	0	91.6%	0	0%	0	0%	146,400	8%	0	0%	1,738,444	3.56	1.93%
CWS - Bear Gulch	4,118,677	0	91.4%	0	0%	388,045	8.6%	0	0%	0	0.0%	4,506,722	9.24	5.00%
CWS - Mid Peninsula	5,539,001	0	100.0%	0	0%	0	0.0%	0	0%	0	0%	5,539,001	11.35	6.14%
CWS - South SF	2,193,604	668,470	76.6%	0	0.0%	0	0%	0	0%	0	0%	2,862,074	5.87	3.17%
Coastside CWD	515,655	0	63.5%	10,227	1.3%	286,685	35.3%	0	0%	0	0.0%	812,567	1.67	0.90%
Daly City	1,867,312 *	1,041,345	58.9%	0	0.0%	0	0%	259,062	8.2%	0	0.00%	3,167,719	6.49	3.51%
East Palo Alto**	734,911	0	100.0%	0	0.00%	0	0%	0	0%	0	0%	734,911	1.51	0.82%
Esterro MID	1,874,751	0	100.0%	0	0%	0	0%	0	0%	0	0%	1,874,751	3.84	2.08%
Hillsborough	1,139,003	0	100.0%	0	0%	0	0%	0	0%	0	0%	1,139,003	2.33	1.26%
Menlo Park	1,153,760	0	100.0%	0	0%	0	0%	0	0%	0	0.0%	1,153,760	2.36	1.28%
Mid-Peninsula WD	1,134,389	0	100.0%	0	0%	0	0%	0	0%	0	0%	1,134,389	2.32	1.26%
Millbrae	918,695	0	98.7%	0	0%	0	0%	12,000	1%	0	0%	930,695	1.91	1.03%
North Coast CWD	1,089,419	0	98.6%	0	0%	0	0%	15,787	1%	0	0%	1,105,206	2.26	1.23%
Redwood City	3,820,098	0	92.8%	0	0%	0	0%	294,771	7.2%	0	0%	4,114,869	8.43	4.56%
San Bruno	383,693	895,413	26.8%	129,317	9.0%	0	0%	0	0%	21,121	1.5%	1,429,544	2.93	1.59%
Westborough WD	356,722	0	100.0%	0	0%	0	0%	0	0%	0	0%	356,722	0.73	0.40%
<b>Subtotal</b>	<b>28,726,490</b>	<b>2,605,228</b>	<b>95.2%</b>	<b>139,544</b>	<b>0.4%</b>	<b>674,730</b>	<b>2.1%</b>	<b>728,020</b>	<b>2.21%</b>	<b>21,121</b>	<b>0.1%</b>	<b>32,895,133</b>	<b>67.41</b>	<b>36.48%</b>
<b>mgd equiv</b>	<b>58.87</b>	<b>5.34</b>		<b>0.29</b>		<b>1.38</b>		<b>1.49</b>		<b>0.04</b>		<b>67.41</b>		
<b>Santa Clara County</b>														
Milpitas	2,391,431	0	57.5%	0	0%	0	0%	361,682	8.7%	1,406,074	33.8%	4,159,187	8.52	4.61%
Mountain View	3,485,016	0	84.5%	54,628	1.3%	0	0%	193,460	5%	391,915	9.5%	4,125,019	8.45	4.57%
Palo Alto	4,382,560	0	93.8%	0	0%	0	0%	289,668	6.2%	0	0%	4,672,228	9.57	5.18%
Purissima Hills WD	689,261	0	100.0%	0	0%	0	0%	0	0%	0	0%	689,261	1.41	0.76%
San Jose	2,024,785	0	87.1%	0	0.0%	0	0%	300,817	12.9%	0	0%	2,325,602	4.77	2.58%
Santa Clara	970,987	0	10.6%	4,752,405	52.0%	0	0%	1,497,626	16.4%	1,920,855	21.0%	9,141,873	18.73	10.14%
Stanford	695,088	0	60.5%	198,507	17.3%	254,967	22.2%	0	0%	0	0%	1,148,562	2.35	1.27%
Sunnyvale	4,066,178	0	52.5%	61,977	0.8%	0	0%	157,626	2.0%	3,458,667	44.7%	7,744,448	15.87	8.59%
<b>Subtotal</b>	<b>18,705,306</b>	<b>0</b>	<b>55.0%</b>	<b>5,067,517</b>	<b>14.9%</b>	<b>254,967</b>	<b>0.7%</b>	<b>2,800,879</b>	<b>8.2%</b>	<b>7,177,511</b>	<b>21.1%</b>	<b>34,006,180</b>	<b>69.69</b>	<b>37.71%</b>
<b>mgd equiv</b>	<b>38.33</b>	<b>0.00</b>		<b>10.38</b>		<b>0.52</b>		<b>5.74</b>		<b>14.71</b>		<b>69.69</b>		
<b>Alameda County</b>														
Alameda CWD	3,081,217	0	18.1%	2,908,717	17.1%	3,923,142	23.1%	0	0%	7,073,168	41.6%	16,986,244	34.81	18.8%
Hayward	6,281,522	0	100.0%	0	0%	0	0%	0	0%	0	0.0%	6,281,522	12.87	7.0%
<b>Subtotal</b>	<b>9,362,739</b>	<b>0</b>	<b>40.2%</b>	<b>2,908,717</b>	<b>12.5%</b>	<b>3,923,142</b>	<b>16.9%</b>	<b>0</b>	<b>0%</b>	<b>7,073,168</b>	<b>30.4%</b>	<b>23,267,766</b>	<b>47.68</b>	<b>25.80%</b>
<b>mgd equiv</b>	<b>19.19</b>	<b>0.00</b>		<b>5.96</b>		<b>8.04</b>				<b>14.50</b>		<b>47.68</b>		
<b>Total</b>	<b>56,794,535</b>	<b>2,605,228</b>	<b>65.9%</b>	<b>8,115,778</b>	<b>9.0%</b>	<b>4,852,839</b>	<b>5.4%</b>	<b>3,528,899</b>	<b>3.9%</b>	<b>14,271,800</b>	<b>15.8%</b>	<b>90,169,079</b>	<b>184.78</b>	<b>100.0%</b>
<b>mgd equiv</b>	<b>116.39</b>	<b>5.34</b>		<b>16.63</b>		<b>9.94</b>		<b>7.23</b>		<b>29.25</b>		<b>184.78</b>		
*The total recycled water noted here is the portion that actually replaces a potable supply.											† Purchase of SF RWS supply from NCCWD.			
**Excludes resale SFPUC supply sold.														
Source: BAWSCA FY 2016-17 Annual Survey														

**Table 3D: Total Monthly Water Use – FY 2016-17 (in ccf)**

Member	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	March	April	May	June	Total	mgd
<b>San Mateo County</b>														
Brisbane / GVMID	25,773	30,219	28,980	23,128	22,900	22,394	16,466	17,204	20,677	19,791	28,704	38,520	294,756	0.60
Burlingame	174,995	177,179	167,668	149,338	124,710	118,006	115,388	107,280	122,444	128,241	169,884	183,311	1,738,444	3.56
CWS - Bear Gulch	610,309	597,173	552,627	386,520	233,029	183,096	177,964	155,032	208,225	271,519	522,760	608,468	4,506,722	9.24
CWS - Mid Peninsula	592,291	586,177	550,138	467,139	373,960	354,745	352,805	320,491	367,250	390,894	571,038	612,073	5,539,001	11.35
CWS - South SF	274,856	276,888	269,233	253,391	212,570	215,917	202,812	186,362	216,352	210,747	264,497	278,449	2,862,074	5.87
Coastside CWD	81,738	92,206	77,099	79,265	52,099	58,529	47,527	45,615	61,270	55,254	76,537	85,428	812,567	1.67
Daly City	293,802	306,182	278,620	248,844	226,265	259,402	219,708	225,665	256,422	225,532	302,046	325,231	3,167,719	6.49
East Palo Alto	73,096	66,627	73,425	61,910	54,011	54,546	55,230	48,134	51,351	58,506	61,022	77,143	734,911	1.51
Estero MID	194,581	224,548	178,164	111,308	128,507	114,174	99,743	97,612	124,869	150,356	236,648	214,241	1,874,751	3.84
Hillsborough	151,191	177,923	139,460	58,322	53,000	36,566	36,100	36,774	48,410	72,731	156,876	171,650	1,139,003	2.33
Menlo Park	142,352	137,888	125,690	93,017	66,162	58,495	57,702	52,383	66,604	75,067	132,870	145,530	1,153,760	2.36
Mid-Peninsula WD	120,096	119,435	110,971	98,512	75,607	71,811	73,026	67,762	74,845	79,817	117,133	125,374	1,134,389	2.32
Millbrae	101,456	93,253	108,423	84,651	63,383	67,274	64,828	57,281	57,674	65,910	66,305	100,257	930,695	1.91
North Coast CWD	95,649	100,679	95,475	94,681	87,148	83,203	83,163	76,173	83,067	88,096	99,462	118,410	1,105,206	2.26
Redwood City	487,020	450,953	405,207	287,323	251,747	244,542	235,230	232,818	270,042	340,566	441,007	468,414	4,114,869	8.43
San Bruno	138,773	136,916	119,401	119,575	105,041	108,297	103,043	102,577	105,544	103,024	138,805	148,548	1,429,544	2.93
Westborough WD	25,737	39,011	34,399	23,682	32,932	32,068	19,787	29,165	27,585	23,013	39,371	29,972	356,722	0.73
<b>Subtotal</b>	<b>3,583,715</b>	<b>3,613,257</b>	<b>3,314,980</b>	<b>2,640,606</b>	<b>2,163,071</b>	<b>2,082,975</b>	<b>1,960,522</b>	<b>1,858,328</b>	<b>2,162,631</b>	<b>2,359,064</b>	<b>3,424,965</b>	<b>3,731,019</b>	<b>32,895,133</b>	<b>67.41</b>
<b>% of Annual Use</b>	<b>11%</b>	<b>11%</b>	<b>10%</b>	<b>8%</b>	<b>7%</b>	<b>6%</b>	<b>6%</b>	<b>6%</b>	<b>7%</b>	<b>7%</b>	<b>10%</b>	<b>11%</b>		
<b>Santa Clara County</b>														
Milpitas	427,677	425,182	465,636	354,302	351,114	293,465	282,904	239,602	293,419	273,020	354,386	398,480	4,159,187	8.52
Mountain View	459,468	474,326	441,081	327,194	253,918	256,043	227,902	206,701	272,437	259,635	413,838	532,476	4,125,019	8.45
Palo Alto	544,077	514,580	538,990	375,866	347,262	293,976	254,160	236,806	255,759	315,622	406,571	588,559	4,672,228	9.57
Purissima Hills WD	103,548	95,254	94,983	54,367	30,320	23,788	20,759	18,018	29,951	38,724	83,974	95,575	689,261	1.41
San Jose	223,147	295,051	230,806	231,854	153,426	165,603	135,389	131,734	154,753	159,858	206,108	237,873	2,325,602	4.77
Santa Clara	925,267	1,040,507	902,837	853,770	635,989	651,656	474,280	596,791	592,859	691,363	818,369	958,185	9,141,873	18.73
Stanford	142,214	158,295	135,149	124,282	64,146	45,900	48,812	43,935	47,938	59,922	109,091	168,878	1,148,562	2.35
Sunnyvale	823,037	834,837	799,157	629,230	489,361	472,267	463,043	414,601	519,606	545,339	817,040	936,930	7,744,448	15.87
<b>Subtotal</b>	<b>3,648,435</b>	<b>3,838,032</b>	<b>3,608,639</b>	<b>2,950,865</b>	<b>2,325,536</b>	<b>2,202,698</b>	<b>1,907,249</b>	<b>1,888,188</b>	<b>2,166,722</b>	<b>2,343,483</b>	<b>3,209,377</b>	<b>3,916,956</b>	<b>34,006,180</b>	<b>69.69</b>
<b>% of Annual Use</b>	<b>11%</b>	<b>11%</b>	<b>11%</b>	<b>9%</b>	<b>7%</b>	<b>6%</b>	<b>6%</b>	<b>6%</b>	<b>6%</b>	<b>7%</b>	<b>9%</b>	<b>12%</b>		
<b>Alameda County</b>														
Alameda CWD	1,808,022	1,804,546	1,712,834	1,500,000	1,159,927	1,127,274	1,093,985	972,995	1,118,717	1,174,733	1,687,300	1,825,896	16,986,229	34.81
Hayward	583,462	606,896	684,081	555,452	463,774	458,928	447,176	364,247	458,644	457,295	494,812	706,755	6,281,522	12.87
<b>Subtotal</b>	<b>2,391,484</b>	<b>2,411,442</b>	<b>2,396,915</b>	<b>2,055,452</b>	<b>1,623,701</b>	<b>1,586,202</b>	<b>1,541,161</b>	<b>1,337,242</b>	<b>1,577,361</b>	<b>1,632,028</b>	<b>2,182,112</b>	<b>2,532,651</b>	<b>23,267,751</b>	<b>47.68</b>
<b>% of Annual Use</b>	<b>10%</b>	<b>10%</b>	<b>10%</b>	<b>9%</b>	<b>7%</b>	<b>7%</b>	<b>7%</b>	<b>6%</b>	<b>7%</b>	<b>7%</b>	<b>9%</b>	<b>11%</b>		
<b>Total</b>	<b>9,623,634</b>	<b>9,862,731</b>	<b>9,320,534</b>	<b>7,646,923</b>	<b>6,112,308</b>	<b>5,871,875</b>	<b>5,408,932</b>	<b>5,083,758</b>	<b>5,906,714</b>	<b>6,334,575</b>	<b>8,816,454</b>	<b>10,180,626</b>	<b>90,169,064</b>	<b>184.78</b>
<b>% of Annual Use</b>	<b>11%</b>	<b>11%</b>	<b>10%</b>	<b>8%</b>	<b>7%</b>	<b>7%</b>	<b>6%</b>	<b>6%</b>	<b>7%</b>	<b>7%</b>	<b>10%</b>	<b>11%</b>		
<b>Note: Totals inclusive of supplemental purchases.</b>														
<b>Source: BAWSCA FY 2016-17 Annual Survey</b>														

**Table 3E-1: Demand Projections by Source (in mgd)**  
**Purchases from SF RWS**

Member	FY 2020-21	FY 2025-26	FY 2030-31	FY 2035-36	FY 2040-41
<b>San Mateo County</b>					
Brisbane / GVMID	0.78	0.95	0.95	0.94	0.94
Burlingame	4.79	4.91	5.04	5.19	5.23
CWS - Bear Gulch	11.70	11.71	11.82	11.95	12.10
CWS - Mid-Peninsula	15.44	15.46	15.61	15.83	16.12
CWS - South SF	6.27	6.29	6.36	6.46	6.58
<b>CWS Total</b>	<b>33.41</b>	<b>33.46</b>	<b>33.79</b>	<b>34.24</b>	<b>34.80</b>
Coastside CWD	2.19	2.19	2.19	2.19	2.19
Daly City	4.29	4.29	4.29	4.29	4.29
East Palo Alto	3.00	4.00	4.00	4.00	4.00
Estero MID	4.22	4.21	4.18	4.19	4.20
Hillsborough	3.09	3.05	3.02	3.00	2.99
Menlo Park	4.47	4.47	4.47	4.47	4.47
Mid-Peninsula WD	3.06	3.18	3.26	3.35	3.42
Millbrae	2.60	2.70	2.70	2.80	3.00
North Coast CWD	2.91	2.97	3.03	3.09	3.20
Redwood City	9.97	10.25	10.36	10.54	10.79
San Bruno	2.38	2.69	3.03	3.25	3.25
Westborough WD	0.76	0.76	0.76	0.75	0.75
<b>Subtotal</b>	<b>81.92</b>	<b>84.08</b>	<b>85.07</b>	<b>86.29</b>	<b>87.52</b>
<b>Santa Clara County</b>					
Milpitas	9.23	9.23	9.23	9.23	9.23
Mountain View	8.52	8.67	8.90	9.16	9.47
Palo Alto	10.60	10.20	9.90	9.70	9.50
Purissima Hills WD	1.78	1.75	1.72	1.71	1.71
San Jose	4.50	4.50	4.50	4.50	4.50
Santa Clara	4.50	4.50	4.50	4.50	4.50
Stanford	2.00	2.15	2.29	2.44	2.59
Sunnyvale	9.93	10.95	10.95	10.95	10.95
<b>Subtotal</b>	<b>51.06</b>	<b>51.95</b>	<b>51.99</b>	<b>52.19</b>	<b>52.45</b>
<b>Alameda County</b>					
Alameda CWD	7.68	8.26	8.84	9.42	10.00
Hayward	21.52	22.80	23.58	24.18	25.38
<b>Subtotal</b>	<b>29.20</b>	<b>31.06</b>	<b>32.42</b>	<b>33.60</b>	<b>35.38</b>
<b>Total</b>	<b>162.18</b>	<b>167.09</b>	<b>169.48</b>	<b>172.08</b>	<b>175.35</b>
<b>Total w/o SJ &amp; SC</b>	<b>153.18</b>	<b>158.09</b>	<b>160.48</b>	<b>163.08</b>	<b>166.35</b>
<b>Source:</b> BAWSCA FY 2016-17 Annual Survey					

**Table 3E-2: Demand Projections by Source (in mgd)**

**Groundwater Production**

Member	FY 2020-21	FY 2025-26	FY 2030-31	FY 2035-36	FY 2040-41
<b>San Mateo County</b>					
CWS - South SF	1.37	1.37	1.37	1.37	1.37
Coastside CWD	0.01	0.01	0.01	0.01	0.01
Daly City	2.20	2.20	2.20	2.20	2.20
East Palo Alto	0.10	0.20	0.20	0.20	0.20
San Bruno	1.50	1.50	1.50	1.67	2.02
<b>Subtotal</b>	<b>5.18</b>	<b>5.28</b>	<b>5.28</b>	<b>5.45</b>	<b>5.80</b>
<b>Santa Clara County</b>					
Milpitas	0.60	0.73	2.15	2.46	2.78
Mountain View	0.51	0.51	0.52	0.54	0.55
San Jose	0.85	1.71	2.61	3.56	4.55
Santa Clara	11.86	13.92	14.46	15.01	15.43
Sunnyvale	0.40	0.30	0.30	0.30	0.30
<b>Subtotal</b>	<b>14.22</b>	<b>17.16</b>	<b>20.03</b>	<b>21.87</b>	<b>23.61</b>
<b>Alameda County</b>					
Alameda CWD	9.10	9.10	9.10	9.10	9.10
<b>Total</b>	<b>28.50</b>	<b>31.54</b>	<b>34.41</b>	<b>36.42</b>	<b>38.51</b>

Source: BAWSCA FY 2016-17 Annual Survey

**Table 3E-3: Demand Projections by Source (in mgd)**

**Surface Water Production**

Member	FY 2020-21	FY 2025-26	FY 2030-31	FY 2035-36	FY 2040-41
<b>San Mateo County</b>					
CWS - Bear Gulch 1	1.13	1.13	1.13	1.13	1.13
Coastside CWD 2	0.53	0.53	0.53	0.53	0.53
<b>Subtotal</b>	<b>1.66</b>	<b>1.66</b>	<b>1.66</b>	<b>1.66</b>	<b>1.66</b>
<b>Alameda County</b>					
Alameda CWD 3	5.20	5.20	5.20	5.20	5.20
<b>Total</b>	<b>6.86</b>	<b>6.86</b>	<b>6.86</b>	<b>6.86</b>	<b>6.86</b>

1 Bear Gulch

2 Pilarcitos/Crystal Springs

3 Del Valle Reservoir

Source: BAWSCA FY 2016-17 Annual Survey

**Table 3E-4: Demand Projections by Source (in mgd)**

**Recycled Water**

Member	FY 2020-21	FY 2025-26	FY 2030-31	FY 2035-36	FY 2040-41
<b>San Mateo County</b>					
Burlingame	0.30	0.30	0.30	0.30	0.30
Daly City	6.16	6.16	6.16	6.16	6.16
Millbrae	0.01	0.01	0.01	0.01	0.01
North Coast CWD	0.10	0.10	0.10	0.11	0.11
Redwood City	0.80	0.96	1.12	1.28	1.44
<b>Subtotal</b>	<b>7.37</b>	<b>7.53</b>	<b>7.69</b>	<b>7.86</b>	<b>8.02</b>
<b>Santa Clara County</b>					
Milpitas	1.03	1.78	1.97	2.21	2.40
Mountain View	0.89	0.97	0.97	0.97	0.97
Palo Alto	0.76	0.76	0.76	0.76	0.76
San Jose	1.04	1.20	1.38	1.56	1.76
Santa Clara	4.64	5.09	5.45	5.80	6.16
Sunnyvale	1.30	1.40	1.50	1.50	1.50
<b>Subtotal</b>	<b>9.66</b>	<b>11.20</b>	<b>12.03</b>	<b>12.80</b>	<b>13.55</b>
<b>Alameda County</b>					
Hayward	3.10	3.10	3.10	3.10	3.10
<b>Total</b>	<b>20.12</b>	<b>21.83</b>	<b>22.82</b>	<b>23.76</b>	<b>24.67</b>

Source: BAWSCA FY 2016-17 Annual Survey

**Table 3E-5: Demand Projections by Source (in mgd)**

**Other Sources**

Member	FY 2020-21	FY 2025-26	FY 2030-31	FY 2035-36	FY 2040-41
<b>San Mateo County</b>					
San Bruno 4	0.05	0.05	0.05	0.05	0.05
<b>Santa Clara County</b>					
Milpitas 1	4.01	5.25	6.50	8.30	8.30
Mountain View 1	1.07	1.07	1.07	1.07	1.07
Santa Clara 1	4.21	4.21	4.21	4.21	4.21
Stanford 2	1.27	1.29	1.32	1.35	1.38
Sunnyvale 1	8.93	9.84	11.36	11.36	11.36
<b>Subtotal</b>	<b>19.49</b>	<b>21.66</b>	<b>24.46</b>	<b>26.29</b>	<b>26.32</b>
<b>Alameda County</b>					
Alameda CWD 3	20.17	23.49	24.41	24.23	24.05
<b>Total</b>	<b>39.71</b>	<b>45.20</b>	<b>48.92</b>	<b>50.57</b>	<b>50.42</b>
1 Purchases from SCVWD					
2 Non-potable surface water and groundwater					
3 Purchases from State Water Project and desalination					
4 Purchases from North Coast CWD					

Source: BAWSCA FY 2016-17 Annual Survey

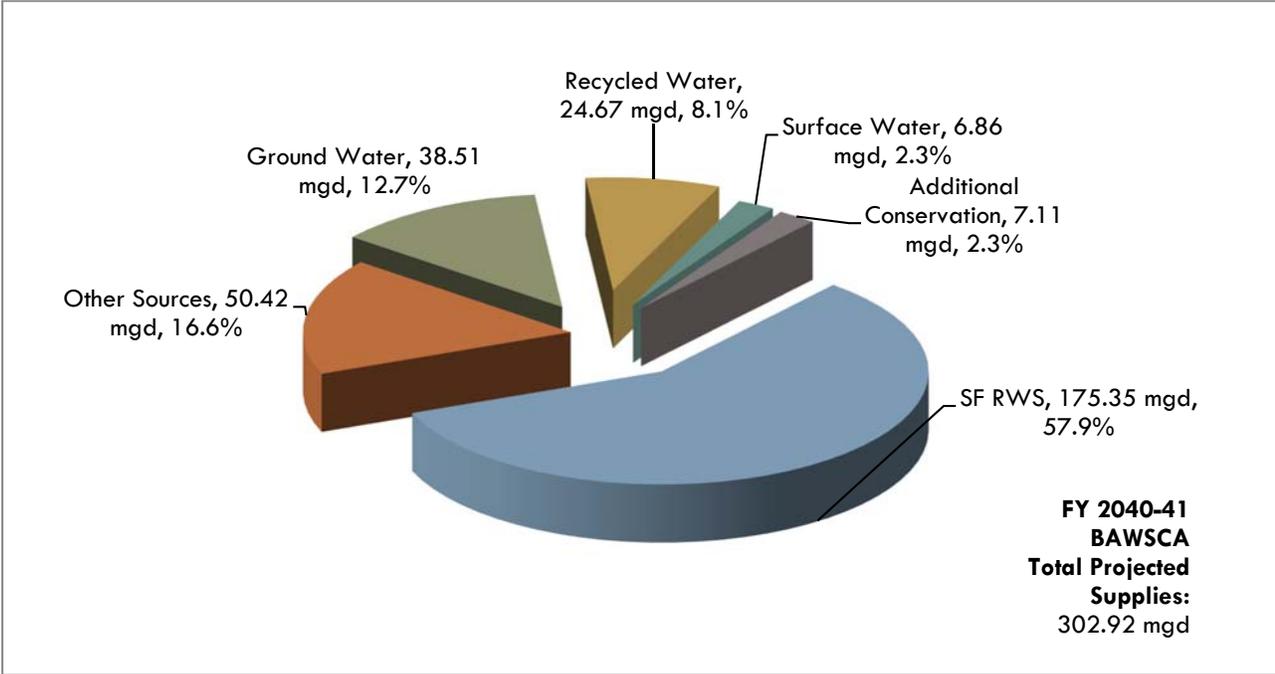
**Table 3E-6: Demand Projections by Source (in mgd)**

**Summary**

Source	FY 2020-21	FY 2025-26	FY 2030-31	FY 2035-36	FY 2040-41
SF RWS	162.18	167.09	169.48	172.08	175.35
Groundwater	28.50	31.54	34.41	36.42	38.51
Surface Water	6.86	6.86	6.86	6.86	6.86
Recycled	20.12	21.83	22.82	23.76	24.67
Other	39.71	45.20	48.92	50.57	50.42
Additional Conservation	4.10	5.01	5.79	6.71	7.11
<b>Total</b>	<b>261.47</b>	<b>277.53</b>	<b>288.28</b>	<b>296.39</b>	<b>302.92</b>

*Source: BAWSCA FY 2016-17 Annual Surveys*

**Figure 3E: Demand Projections by Source – FY 2040-41 (in mgd)**



## 4. Current Water Use by Customer Class



Figure 4A: Potable Water Use by Customer Class – FY 2016-17

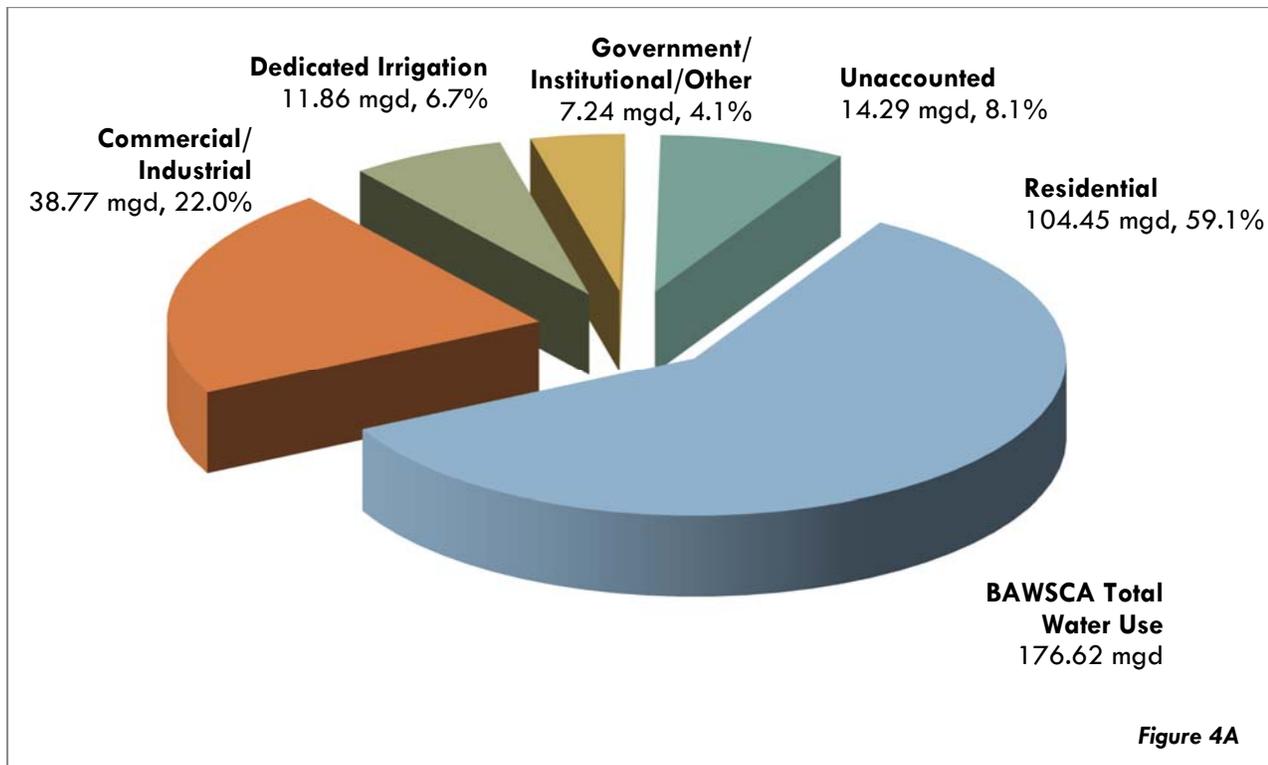
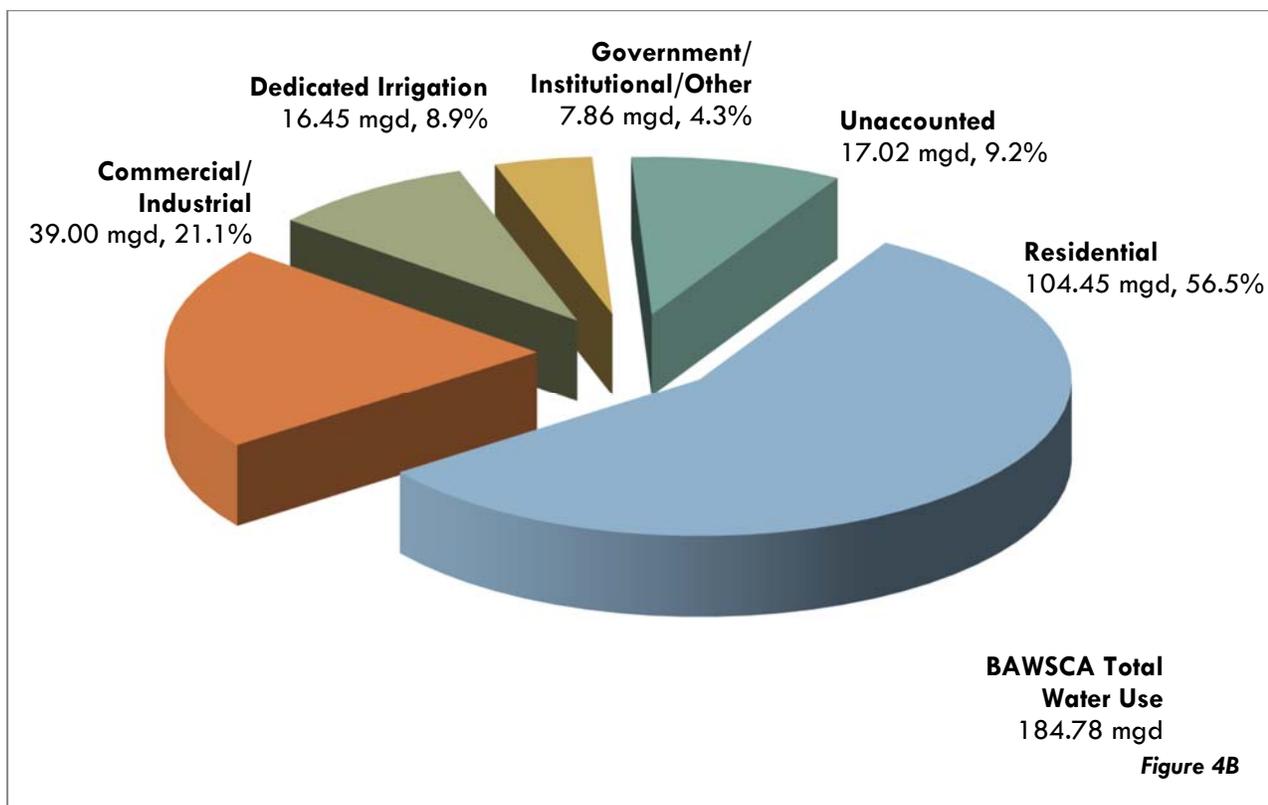
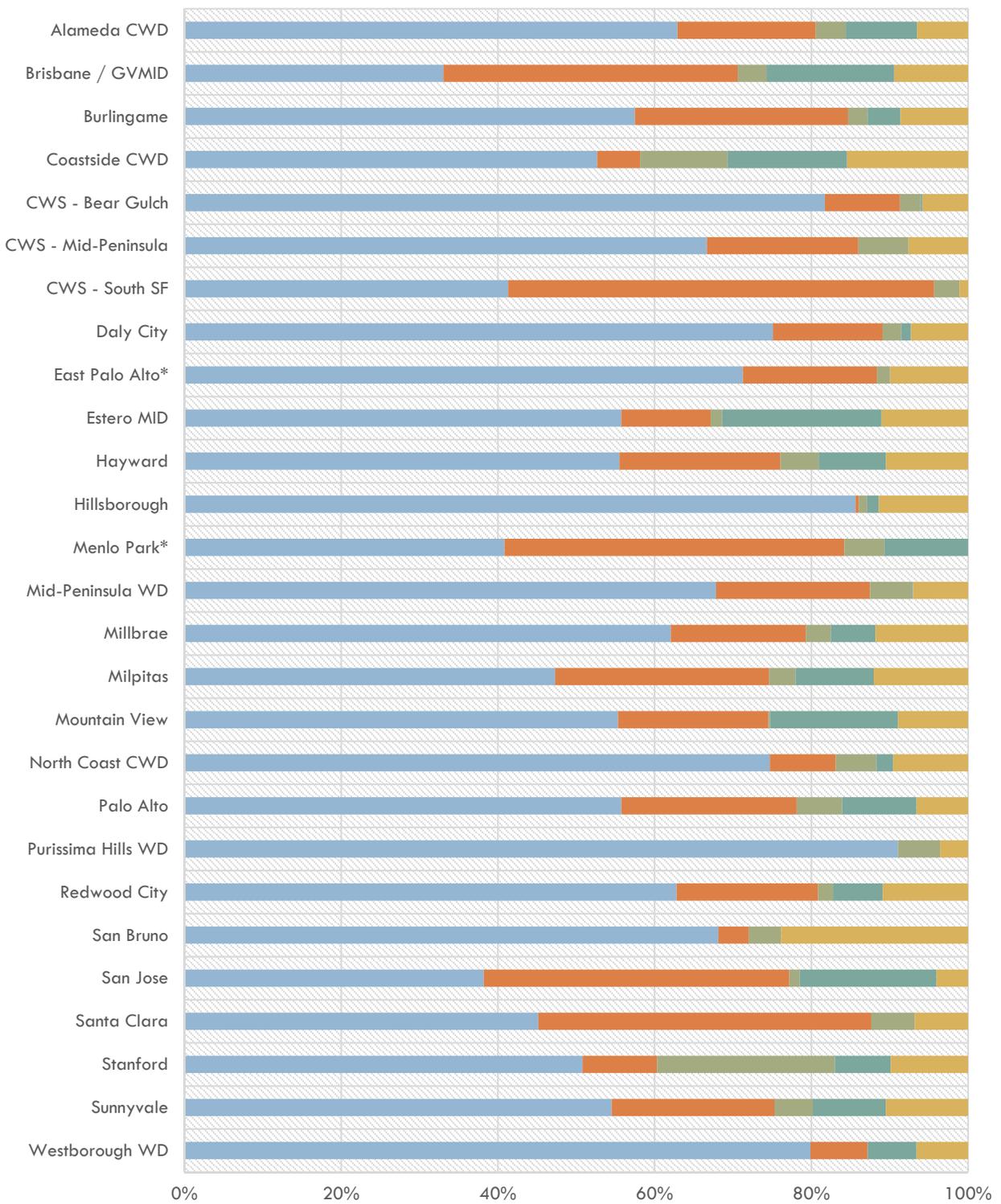


Figure 4B: Total Water Use by Customer Class – FY 2016-17



**Figure 4C: Potable Water Use by Sector for BAWSCA Agencies – FY 2016-17**



\* Negative unaccounted amounts not displayed.

■ Residential ■ Commercial / Industrial ■ Government / Institutional / Other ■ Dedicated Irrigation ■ Unaccounted

**Figure 4C**

**Table 4A: Potable Water Use by Customer Class – FY 2016-17 (in ccf)**

Member	Residential			Non-Residential					Dedicated Irrigation†	Unaccounted	Total Potable Consumption	
	Single Family	Multiple Family	Subtotal	Commercial	Industrial	Comm'l/Ind'l Subtotal	Gov't/Insti'l/Other	Subtotal			mgd	
<b>San Mateo County</b>												
Brisbane / GVMID	78,802	18,623	97,425	110,718	0	110,718	10,803	121,521	48,045	27,765	294,756	0.60
Burlingame	615,153	300,251	915,404	223,304	209,714	433,018	39,480	472,498	66,869	137,273	1,592,044	3.26
CWS - Bear Gulch	3,571,896	111,874	3,683,770	430,246	836	431,082	118,413	549,495	10,355	263,102	4,506,722	9.24
CWS - Mid-Peninsula	2,888,154	805,265	3,693,419	1,051,744	18,196	1,069,940	355,830	1,425,770	0	419,812	5,539,001	11.35
CWS - South SF	1,035,542	147,258	1,182,800	1,275,774	280,079	1,555,853	92,621	1,648,474	0	30,800	2,862,074	5.87
Coastside CWD	387,019	40,939	427,958	44,685	0	44,685	90,426	135,111	124,002	125,496	812,567	1.67
Daly City	1,489,660	680,705	2,170,365	403,689	90	403,779	69,008	472,787	35,931	229,574	2,908,657	5.96
East Palo Alto*	523,703	0	523,703	118,482	7,392	125,874	12,304	138,178	0	73,030	734,911	1.51
Estero MID	424,148	621,079	1,045,227	178,910	34,418	213,328	27,720	241,048	381,425	207,051	1,874,751	3.84
Hillsborough	975,463		975,463	4,567		4,567	12,364	16,931	16,965	129,644	1,139,003	2.33
Menlo Park	377,249	132,424	509,673	205,234	335,929	541,163	63,640	604,803	133,276	-93,992	1,153,760	2.36
Mid-Peninsula WD	588,160	181,441	769,601	191,629	31,106	222,735	61,447	284,182	1,200	79,406	1,134,389	2.32
Millbrae	416,087	154,094	570,181	158,303	0	158,303	29,353	187,656	52,420	108,438	918,695	1.88
North Coast CWD	669,810	144,117	813,927	91,672	0	91,672	56,333	148,005	23,205	104,282	1,089,419	2.23
Redwood City	1,652,715	746,474	2,399,189	643,958	46,185	690,143	71,983	762,126	242,454	416,329	3,820,098	7.83
San Bruno*	974,044	0	974,044	55,469	0	55,469	58,938	114,407	0	341,093	1,429,544	2.93
Westborough	248,248	36,738	284,986	26,058	0	26,058	0	26,058	22,214	23,464	356,722	0.73
<b>Subtotal</b>	<b>16,915,853</b>	<b>4,121,282</b>	<b>21,037,135</b>	<b>5,214,442</b>	<b>963,945</b>	<b>6,178,387</b>	<b>1,170,663</b>	<b>7,349,050</b>	<b>1,158,361</b>	<b>2,622,567</b>	<b>32,167,113</b>	<b>65.92</b>
<b>mgd equiv</b>	<b>34.67</b>	<b>8.45</b>	<b>43.11</b>	<b>10.69</b>	<b>1.98</b>	<b>12.66</b>	<b>2.40</b>	<b>15.06</b>	<b>2.37</b>	<b>5.37</b>	<b>65.92</b>	
<b>Santa Clara County</b>												
Milpitas	1,101,352	695,793	1,797,145	540,869	495,528	1,036,397	128,539	1,164,936	378,075	457,349	3,797,505	7.78
Mountain View	946,328	1,229,294	2,175,622	593,970	160,344	754,314	8,768	763,082	642,095	350,760	3,931,559	8.06
Palo Alto	1,788,893	655,139	2,444,032	836,792	143,658	980,450	254,143	1,234,593	416,259	287,676	4,382,560	8.98
Purissima Hills WD	627,686	0	627,686			0	37,137	37,137		24,438	689,261	1.41
San Jose**	90,478	682,989	773,467	167,771	621,869	789,640	26,723	816,363	353,613	81,342	2,024,785	4.15
Santa Clara	1,752,068	1,700,358	3,452,426	2,518,780	728,751	3,247,531	423,860	3,671,391	0	520,430	7,644,247	15.67
Stanford	143,497	209,744	353,241	416	65,620	66,036	157,835	223,871	49,315	68,661	695,088	1.42
Sunnyvale	2,243,999	1,891,876	4,135,875	1,576,363	0	1,576,363	371,966	1,948,329	706,363	796,255	7,586,822	15.55
<b>Subtotal</b>	<b>8,694,301</b>	<b>7,065,193</b>	<b>15,759,494</b>	<b>6,234,961</b>	<b>2,215,770</b>	<b>8,450,731</b>	<b>1,408,971</b>	<b>9,859,702</b>	<b>2,545,720</b>	<b>2,586,911</b>	<b>30,751,827</b>	<b>63.02</b>
<b>mgd equiv</b>	<b>17.82</b>	<b>14.48</b>	<b>32.30</b>	<b>12.78</b>	<b>4.54</b>	<b>17.32</b>	<b>2.89</b>	<b>20.21</b>	<b>5.22</b>	<b>5.30</b>	<b>63.02</b>	
<b>Alameda County</b>												
Alameda CWD	7,582,289	3,103,909	10,686,198	2,039,173	960,330	2,999,503	647,774	3,647,277	1,545,155	1,107,614	16,986,244	34.81
Hayward	2,133,948	1,352,891	3,486,839	506,289	785,213	1,291,502	305,097	1,596,599	540,224	657,860	6,281,522	12.87
<b>Subtotal</b>	<b>9,716,237</b>	<b>4,456,800</b>	<b>14,173,037</b>	<b>2,545,462</b>	<b>1,745,543</b>	<b>4,291,005</b>	<b>952,871</b>	<b>5,243,876</b>	<b>2,085,379</b>	<b>1,765,474</b>	<b>23,267,766</b>	<b>47.68</b>
<b>mgd equiv</b>	<b>19.91</b>	<b>9.13</b>	<b>29.05</b>	<b>5.22</b>	<b>3.58</b>	<b>8.79</b>	<b>1.95</b>	<b>10.75</b>	<b>4.27</b>	<b>3.62</b>	<b>47.68</b>	
<b>Total</b>	<b>35,326,391</b>	<b>15,643,275</b>	<b>50,969,666</b>	<b>13,994,865</b>	<b>4,925,258</b>	<b>18,920,123</b>	<b>3,532,505</b>	<b>22,452,628</b>	<b>5,789,460</b>	<b>6,974,951</b>	<b>86,186,706</b>	<b>176.62</b>
<b>mgd equiv</b>	<b>72.39</b>	<b>32.06</b>	<b>104.45</b>	<b>28.68</b>	<b>10.09</b>	<b>38.77</b>	<b>7.24</b>	<b>46.01</b>	<b>11.86</b>	<b>14.29</b>	<b>176.62</b>	
* Single family amount includes multi-family				† Dedicated Irrigation refers to separately metered irrigation usage and includes agriculture								
<b>Source: BAWSCA FY 2016-17 Annual Survey</b>												

**Table 4B: Total Water Use by Customer Class – FY 2016-17 (in ccf)**

Member	Residential			Non-Residential					Dedicated Irrigation†	Unaccounted	Total Consumption	
	Single Family	Multiple Family	Subtotal	Commercial	Industrial	Comm'l/Ind'l Subtotal	Gov't/Instit'l/Other	Subtotal			mgd	mgd
<b>San Mateo County</b>												
Brisbane / GVMID	78,802	18,623	97,425	110,718	0	110,718	10,803	121,521	48,045	27,765	294,756	0.60
Burlingame	615,153	300,251	915,404	223,304	209,714	433,018	39,480	472,498	213,269	137,273	1,738,444	3.56
CWS - Bear Gulch	3,571,896	111,874	3,683,770	430,246	836	431,082	118,413	549,495	10,355	263,102	4,506,722	9.24
CWS - Mid-Peninsula	2,888,154	805,265	3,693,419	1,051,744	18,196	1,069,940	355,830	1,425,770	0	419,812	5,539,001	11.35
CWS - South SF	1,035,542	147,258	1,182,800	1,275,774	280,079	1,555,853	92,621	1,648,474	0	30,800	2,862,074	5.87
Coastside CWD	387,019	40,939	427,958	44,685	0	44,685	90,426	135,111	175,193	74,305	812,567	1.67
Daly City	1,489,660	680,705	2,170,365	403,689	90	403,779	69,008	472,787	294,993	229,574	3,167,719	6.49
East Palo Alto*	523,703	0	523,703	118,482	7,392	125,874	12,304	138,178	0	73,030	734,911	1.51
Estero MID	424,148	621,079	1,045,227	178,910	34,418	213,328	27,720	241,048	381,425	207,051	1,874,751	3.84
Hillsborough	975,463	0	975,463	4,567	0	4,567	12,364	16,931	16,965	129,644	1,139,003	2.33
Menlo Park	377,249	132,424	509,673	205,234	335,929	541,163	63,640	604,803	133,276	-93,992	1,153,760	2.36
Mid-Peninsula WD	588,160	181,441	769,601	191,629	31,106	222,735	61,447	284,182	1,200	79,406	1,134,389	2.32
Millbrae	416,087	154,094	570,181	158,303	0	158,303	29,353	187,656	52,420	120,438	930,695	1.91
North Coast CWD	669,810	144,117	813,927	91,672	0	91,672	56,333	148,005	23,205	120,069	1,105,206	2.26
Redwood City	1,652,715	746,474	2,399,189	648,845	54,637	703,482	72,007	775,489	502,184	438,007	4,114,869	8.43
San Bruno*	974,044	0	974,044	55,469	0	55,469	58,938	114,407	0	341,093	1,429,544	2.93
Westborough	248,248	36,738	284,986	26,058	0	26,058	0	26,058	22,214	23,464	356,722	0.73
<b>Subtotal</b>	<b>16,915,853</b>	<b>4,121,282</b>	<b>21,037,135</b>	<b>5,219,329</b>	<b>972,397</b>	<b>6,191,726</b>	<b>1,170,687</b>	<b>7,362,413</b>	<b>1,874,744</b>	<b>2,620,841</b>	<b>32,895,133</b>	<b>67.41</b>
<b>mgd equiv</b>	<b>34.67</b>	<b>8.45</b>	<b>43.11</b>	<b>10.70</b>	<b>1.99</b>	<b>12.69</b>	<b>2.40</b>	<b>15.09</b>	<b>3.84</b>	<b>5.37</b>	<b>67.41</b>	
<b>Santa Clara County</b>												
Milpitas	1,101,352	695,793	1,797,145	540,869	495,790	1,036,659	128,539	1,165,198	730,235	466,609	4,159,187	8.52
Mountain View	946,328	1,229,294	2,175,622	595,261	160,344	755,605	9,904	765,509	773,367	410,521	4,125,019	8.45
Palo Alto	1,788,893	655,139	2,444,032	836,792	143,658	980,450	543,728	1,524,178	416,340	287,678	4,672,228	9.57
Purissima Hills WD	627,686	0	627,686	0	0	0	37,137	37,137	0	24,438	689,261	1.41
San Jose**	90,478	682,989	773,467	167,771	717,873	885,644	35,895	921,539	549,254	81,342	2,325,602	4.77
Santa Clara	1,752,068	1,700,358	3,452,426	2,518,780	728,751	3,247,531	423,860	3,671,391	0	2,018,056	9,141,873	18.73
Stanford	143,497	209,744	353,241	416	65,620	66,036	157,835	223,871	498,566	72,884	1,148,562	2.35
Sunnyvale	2,243,999	1,891,876	4,135,875	1,576,363	0	1,576,363	371,966	1,948,329	1,100,904	559,340	7,744,448	15.87
<b>Subtotal</b>	<b>8,694,301</b>	<b>7,065,193</b>	<b>15,759,494</b>	<b>6,236,252</b>	<b>2,312,036</b>	<b>8,548,288</b>	<b>1,708,864</b>	<b>10,257,152</b>	<b>4,068,666</b>	<b>3,920,868</b>	<b>34,006,180</b>	<b>69.69</b>
<b>mgd equiv</b>	<b>17.82</b>	<b>14.48</b>	<b>32.30</b>	<b>12.78</b>	<b>4.74</b>	<b>17.52</b>	<b>3.50</b>	<b>21.02</b>	<b>8.34</b>	<b>8.04</b>	<b>69.69</b>	
<b>Alameda County</b>												
Alameda CWD	7,582,289	3,103,909	10,686,198	2,039,173	960,330	2,999,503	647,774	3,647,277	1,545,155	1,107,614	16,986,244	34.81
Hayward	2,133,948	1,352,891	3,486,839	506,289	785,213	1,291,502	305,097	1,596,599	540,224	657,860	6,281,522	12.87
<b>Subtotal</b>	<b>9,716,237</b>	<b>4,456,800</b>	<b>14,173,037</b>	<b>2,545,462</b>	<b>1,745,543</b>	<b>4,291,005</b>	<b>952,871</b>	<b>5,243,876</b>	<b>2,085,379</b>	<b>1,765,474</b>	<b>23,267,766</b>	<b>47.68</b>
<b>mgd equiv</b>	<b>19.91</b>	<b>9.13</b>	<b>29.05</b>	<b>5.22</b>	<b>3.58</b>	<b>8.79</b>	<b>1.95</b>	<b>10.75</b>	<b>4.27</b>	<b>3.62</b>	<b>47.68</b>	
<b>Total</b>	<b>35,326,391</b>	<b>15,643,275</b>	<b>50,969,666</b>	<b>14,001,043</b>	<b>5,029,976</b>	<b>19,031,019</b>	<b>3,832,422</b>	<b>22,863,441</b>	<b>8,028,789</b>	<b>8,307,182</b>	<b>90,169,079</b>	<b>184.78</b>
<b>mgd equiv</b>	<b>72.39</b>	<b>32.06</b>	<b>104.45</b>	<b>28.69</b>	<b>10.31</b>	<b>39.00</b>	<b>7.85</b>	<b>46.85</b>	<b>16.45</b>	<b>17.02</b>	<b>184.78</b>	
* Single family amount includes multi-family			† Dedicated Irrigation refers to separately metered irrigation usage and includes agriculture									

Source: BAWSCA FY 2016-17 Annual Survey

**Table 4C: Number of Customer Accounts – FY 2016-17**

Member	Residential			Commercial	Industrial	Ind/Comm Subtotal	Non-Residential		Dedicated Irrigation†	Total
	Single Family*	Multiple Family	Res Subtotal				Gov't, Other	Non-Res Subtotal		
<b>San Mateo County</b>										
Brisbane / GVMID	1,533	117	1,650	298	0	298	0	298	92	2,040
Burlingame	6,840	740	7,580	610	262	872	542	1,414	200	9,194
CWS - Bear Gulch	16,963	180	17,143	1,265	1	1,266	151	1,417	8	18,568
CWS - Mid-Peninsula	31,251	738	31,989	3,335	92	3,427	372	3,799	0	35,788
CWS - SSF	14,000	171	14,171	1,880	52	1,932	236	2,168	0	16,339
Coastside CWD	5,799	132	5,931	318	0	318	1,108	1,426	77	7,434
Daly City	18,920	2,904	21,824	772	6	778	188	966	260	23,050
East Palo Alto	3,673	0	3,673	122	40	162	95	257	0	3,930
Estero MID	4,535	2,593	7,128	197	57	254	253	507	529	8,164
Hillsborough	4,180	0	4,180	11	0	11	16	27	66	4,273
Menlo Park	3,392	218	3,610	172	246	418	201	619	136	4,365
Mid-Peninsula WD	7,301	202	7,503	459	48	507	35	542	8	8,053
Millbrae	5,744	276	6,020	297	0	297	140	437	98	6,555
North Coast CWD	11,124	300	11,424	342	0	342	644	986	89	12,499
Redwood City	19,149	1,683	20,832	1,422	48	1,470	827	2,297	430	23,559
San Bruno	9,480	1,067	10,547	719	3	722	83	805	130	11,482
Westborough WD	3,727	14	3,741	47	0	47	0	47	94	3,882
<b>Subtotal</b>	167,611	11,335	178,946	12,266	855	13,121	4,891	18,012	2,217	199,175
<b>Santa Clara County</b>										
Milpitas	12,393	1,865	14,258	605	315	920	629	1,549	774	16,581
Mountain View	12,465	2,492	14,957	1,418	566	1,984	33	2,017	1,013	17,987
Palo Alto	15,315	1,918	17,233	1,537	79	1,616	961	2,577	404	20,214
Purissima Hills WD	2,070	0	2,070	0	0	0	121	121	10	2,201
San Jose	1,155	280	1,435	161	281	442	76	518	272	2,225
Santa Clara	17,306	4,873	22,179	2,655	360	3,015	520	3,535	0	25,714
Stanford				Not Applicable						
Sunnyvale	23,703	1,649	25,352	1,773	0	1,773	120	1,893	919	28,164
<b>Subtotal</b>	84,407	13,077	97,484	8,149	1,601	9,750	2,460	12,210	3,392	113,086
<b>Alameda County</b>										
Alameda CWD	72,840	3,069	75,909	3,912	1,187	5,099	1,088	6,187	2,420	84,516
Hayward	28818	1424	30,242	1,869	1,770	3,639	418	4,057	1,362	35,661
<b>Subtotal</b>	101,658	4,493	106,151	5,781	2,957	8,738	1,506	10,244	3,782	120,177
<b>Total</b>	353,676	28,905	382,581	26,196	5,413	31,609	8,857	40,466	9,391	432,438
*Individually metered homes, townhouses, and condos				† Dedicated Irrigation refers to separately metered irrigation usage						
Source: BAWSCA FY 2016-17 Annual Survey										

## 5. Climatological Data



**Table 5A: Climatological Data**

<b>Rainfall</b>					
<b>Precipitation (Inches)</b>					
	<b>Redwood City*</b>	<b>San Jose</b>	<b>Newark</b>	<b>SF Airport</b>	
<b>Historical Avg (1906-2016)</b>					
	19.2	14.6	14.3	19.9	
<b>Recent Past</b>					
FY 2012-13	13.9	9.4	12.2	12.9	
FY 2013-14	6.6	6.3	6.9	8.8	
FY 2014-15	12.9	13.7	14.6	17.0	
FY 2015-16	19.6	14.9	13.1	17.3	
FY 2016-17	31.5	18.4	19.8	30.9	
<b>FY 2016-17 Deviation from Historical Avg</b>					
	12.4	3.8	5.5	11.0	
<b>Temperature</b>					
<b>Average Maximum Temperature (Degrees F)</b>					
	<b>Redwood City*</b>	<b>San Jose</b>	<b>Newark</b>	<b>SF Airport</b>	
<b>Historical Avg (1948-2016)</b>					
Annual	71.0	70.8	68.2	65.2	
Summer**	81.5	81.2	77.0	72.3	
<b>Recent Past</b>					
2012-13 Annual	70.9	71.4	68.2	65.4	
Summer**	78.1	79.1	74.9	69.1	
2013-14 Annual	72.1	72.2	69.7	67.8	
Summer**	79.5	79.4	75.9	72.0	
2014-15 Annual	72.9	72.1	70.5	69.0	
Summer**	81.3	79.6	77.5	74.9	
2015-16 Annual	72.2	67.6	70.5	69.0	
Summer**	82.5	75.3	77.5	74.9	
2016-17 Annual	70.1	71.4	68.6	66.2	
Summer**	79.1	81.0	76.3	71.8	
<b>FY 2016-17 Deviation From Historical Avg</b>					
Annual	-0.9	0.6	0.4	1.0	
Summer**	-2.5	-0.2	-0.7	-0.4	
*Values for Palo Alto were sometimes used in cases where Redwood City values were absent or incomplete.					
**July, August, September					
<b>Source:</b> Western Regional Climate Center					

Figure 5A: Total Annual Precipitation

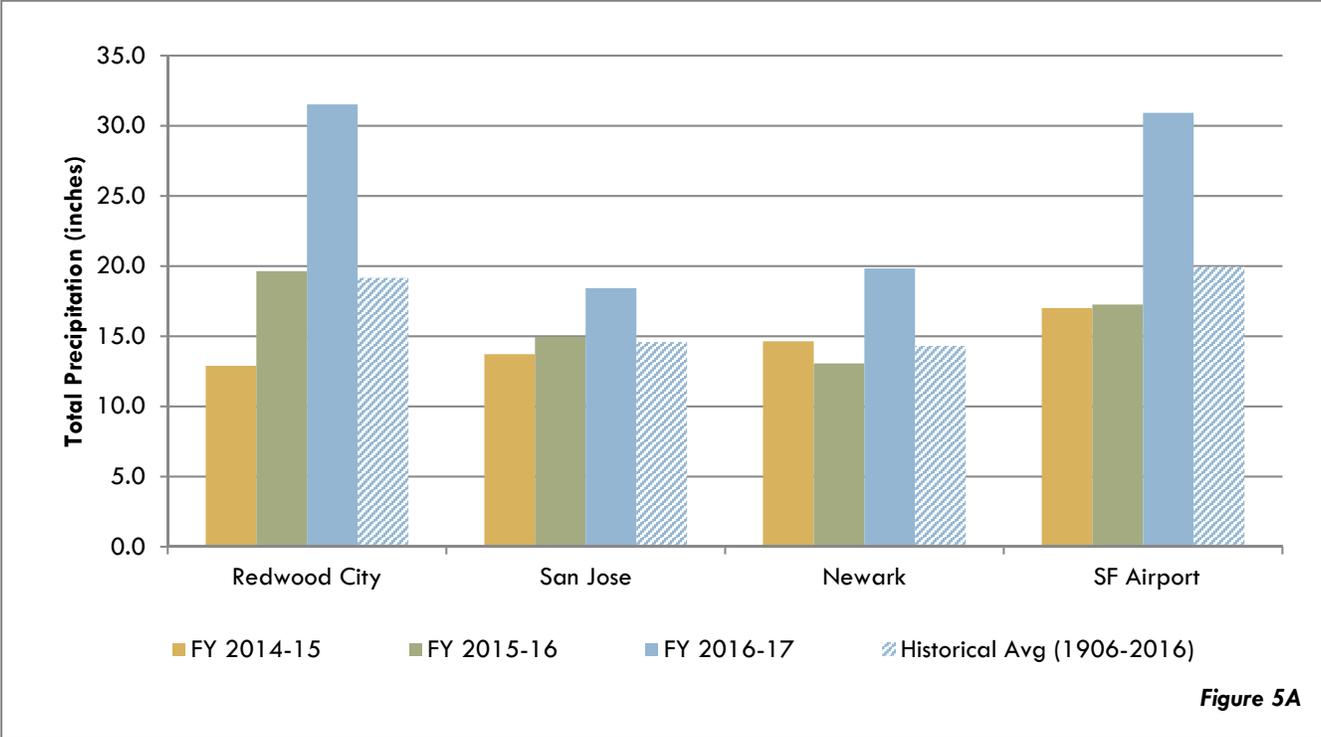


Figure 5A

Figure 5B: Average Maximum Daily Temperature

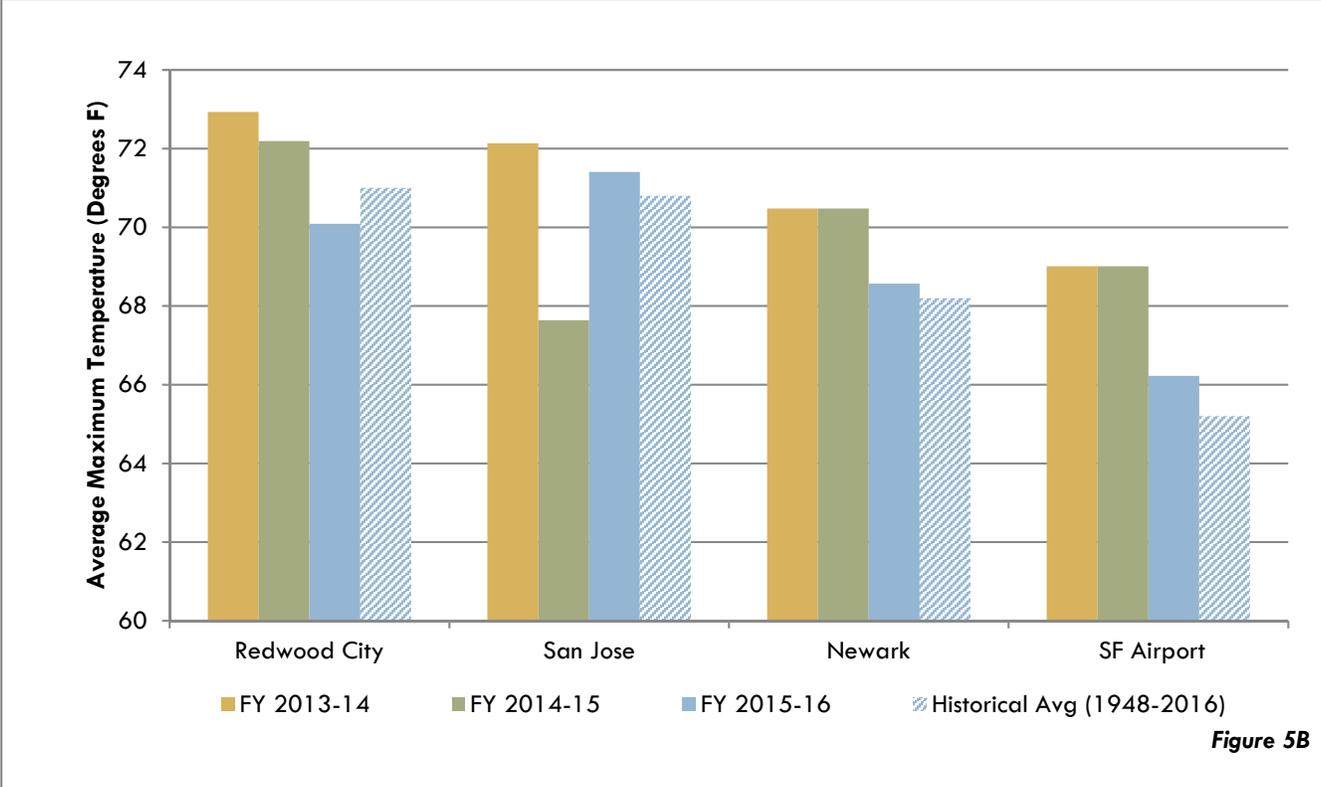


Figure 5B

## 6. Service Area Populations



**Table 6: BAWSCA Service Area Populations**

	FY 2006-07	FY 2007-08	FY 2008-09	FY 2009-10	FY 2010-11	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2020-21	FY 2025-26	FY 2030-31	FY 2035-36	FY 2040-41
<b>San Mateo County</b>																
Brisbane/GVMID	3,159	3,159	3,159	3,993	4,282	4,282	4,282	4,282	4,282	4,562	4,156	4,509	4,632	4,761	4,906	5,056
Burlingame	28,100	28,100	28,867	30,493	30,282	30,282	30,282	30,282	32,993	31,109	31,109	31,109	32,793	34,477	36,162	37,846
CWS - Bear Gulch	55,501	55,501	57,078	55,810	57,254	57,845	58,098	58,352	59,883	59,883	60,513	61,202	62,555	63,944	65,369	66,831
CWS - Mid-Peninsula	124,279	124,279	123,260	120,350	126,850	128,445	128,037	129,037	133,679	133,679	135,455	139,642	146,125	153,178	160,856	169,216
CWS - South SF	57,370	57,370	56,210	56,010	58,658	58,815	59,567	60,172	61,223	61,223	61,769	63,430	65,732	68,133	70,639	73,254
Coastside CWD	17,923	18,887	19,221	20,216	20,216	17,094	16,900	16,652	16,668	16,704	16,704	16,848	16,873	16,886	18,363	19,840
Daly City	106,160	106,361	107,099	107,773	101,920	102,043	102,820	104,462	108,510	109,139	109,139	118,000	122,700	129,700	136,900	143,900
East Palo Alto	29,690	29,690	29,690	29,690	26,181	25,215	25,927	25,927	29,143	24,424	26,181	27,490	28,865	30,308	31,823	33,414
Estero MID	34,385	36,000	36,100	36,100	36,100	36,100	36,567	37,000	37,088	37,165	37,518	37,200	38,035	38,661	39,079	39,440
Guadalupe Valley	438	438	438													
Hillsborough	10,965	10,825	10,844	11,982	10,825	10,825	10,850	10,860	10,869	10,869	10,869	10,869	10,913	10,956	11,000	11,000
Los Trancos																
Menlo Park	10,261	10,308	14,139	14,139	14,198	14,198	14,198	16,066	15,342	16,066	16,066	18,224	21,214	24,204	27,194	30,184
Mid-Peninsula WD	26,050	26,050	26,050	26,130	26,130	26,270	26,270	26,270	26,730	26,730	26,924	26,924	27,560	28,259	28,793	29,438
Millbrae	20,718	21,387	21,387	21,387	21,532	21,532	21,532	21,532	21,532	22,848	22,848	22,848	24,192	25,571	27,076	28,657
North Coast CWD	40,000	40,000	40,000	40,000	40,000	40,000	39,000	39,000	40,000	40,000	40,000	39,800	40,600	41,400	42,000	42,400
Redwood City	83,895	83,895	83,895	85,098	84,557	86,647	86,647	86,427	87,059	87,023	87,023	90,518	93,765	97,128	100,614	104,247
San Bruno	40,165	40,165	40,165	41,114	41,114	41,420	41,114	43,798	43,798	44,409	44,409	45,600	48,600	51,200	53,400	55,800
Skyline	1,812	1,658														
Westborough WD	12,000	12,000	12,000	12,690	13,300	13,259	13,259	13,259	13,260	14,050	14,050	12,791	13,101	13,411	13,721	14,020
<b>Subtotal</b>	<b>702,871</b>	<b>706,073</b>	<b>709,602</b>	<b>713,376</b>	<b>713,399</b>	<b>714,272</b>	<b>715,350</b>	<b>723,378</b>	<b>742,060</b>	<b>739,883</b>	<b>744,733</b>	<b>767,004</b>	<b>798,255</b>	<b>832,177</b>	<b>867,895</b>	<b>904,543</b>
<b>Santa Clara County</b>																
Milpitas	64,998	69,419	70,817	70,817	66,790	67,804	67,894	69,783	70,800	75,521	77,528	82,300	90,400	98,100	106,000	109,100
Mountain View	73,262	73,932	74,762	75,787	75,275	73,774	73,656	75,280	76,413	75,430	77,801	79,010	82,590	86,170	89,750	93,330
Palo Alto	62,148	63,467	63,400	65,408	64,403	64,538	66,368	66,642	66,152	68,020	66,930	68,020	70,500	73,700	77,100	84,600
Purissima Hills WD	6,050	6,050	6,050	6,060	6,118	6,120	6,127	6,142	6,140	6,150	6,150	6,150	6,165	6,180	6,195	6,220
San Jose*	13,600	14,800	16,900	14,645	14,624	14,658	15,178	15,286	15,948	9,059	13,733	20,785	32,712	45,536	59,059	59,059
Santa Clara	114,238	114,238	117,200	118,830	118,830	118,263	119,311	118,459	120,973	120,973	123,752	128,691	135,012	141,726	148,951	156,482
Stanford	27,715	29,026	27,397	27,491	28,218	28,792	29,401	29,635	30,486	30,943	31,558	33,094	35,173	37,373	39,704	41,766
Sunnyvale	133,721	133,721	137,538	138,826	141,099	142,896	145,973	147,055	148,028	148,372	149,831	154,671	161,314	167,957	174,600	181,243
<b>Subtotal</b>	<b>495,732</b>	<b>504,653</b>	<b>514,064</b>	<b>517,864</b>	<b>515,357</b>	<b>516,845</b>	<b>523,908</b>	<b>528,282</b>	<b>534,940</b>	<b>534,468</b>	<b>547,283</b>	<b>572,721</b>	<b>613,866</b>	<b>656,742</b>	<b>701,359</b>	<b>731,800</b>
<b>Alameda County</b>																
Alameda CWD	327,652	330,786	331,293	332,000	327,000	331,000	336,000	340,000	344,000	348,000	350,538	353,300	367,600	382,511	398,723	415,637
Hayward	147,845	149,205	150,878	153,104	146,000	147,113	148,756	151,037	152,889	158,985	158,985	150,919	157,655	164,617	171,979	179,916
<b>Subtotal</b>	<b>475,497</b>	<b>479,991</b>	<b>482,171</b>	<b>485,104</b>	<b>473,000</b>	<b>478,113</b>	<b>484,756</b>	<b>491,037</b>	<b>496,889</b>	<b>506,985</b>	<b>509,523</b>	<b>504,219</b>	<b>525,255</b>	<b>547,128</b>	<b>570,702</b>	<b>595,553</b>
<b>Total</b>	<b>1,674,100</b>	<b>1,690,717</b>	<b>1,705,837</b>	<b>1,716,344</b>	<b>1,701,756</b>	<b>1,709,230</b>	<b>1,724,014</b>	<b>1,742,697</b>	<b>1,773,889</b>	<b>1,781,336</b>	<b>1,801,539</b>	<b>1,843,944</b>	<b>1,937,376</b>	<b>2,036,047</b>	<b>2,139,956</b>	<b>2,231,896</b>

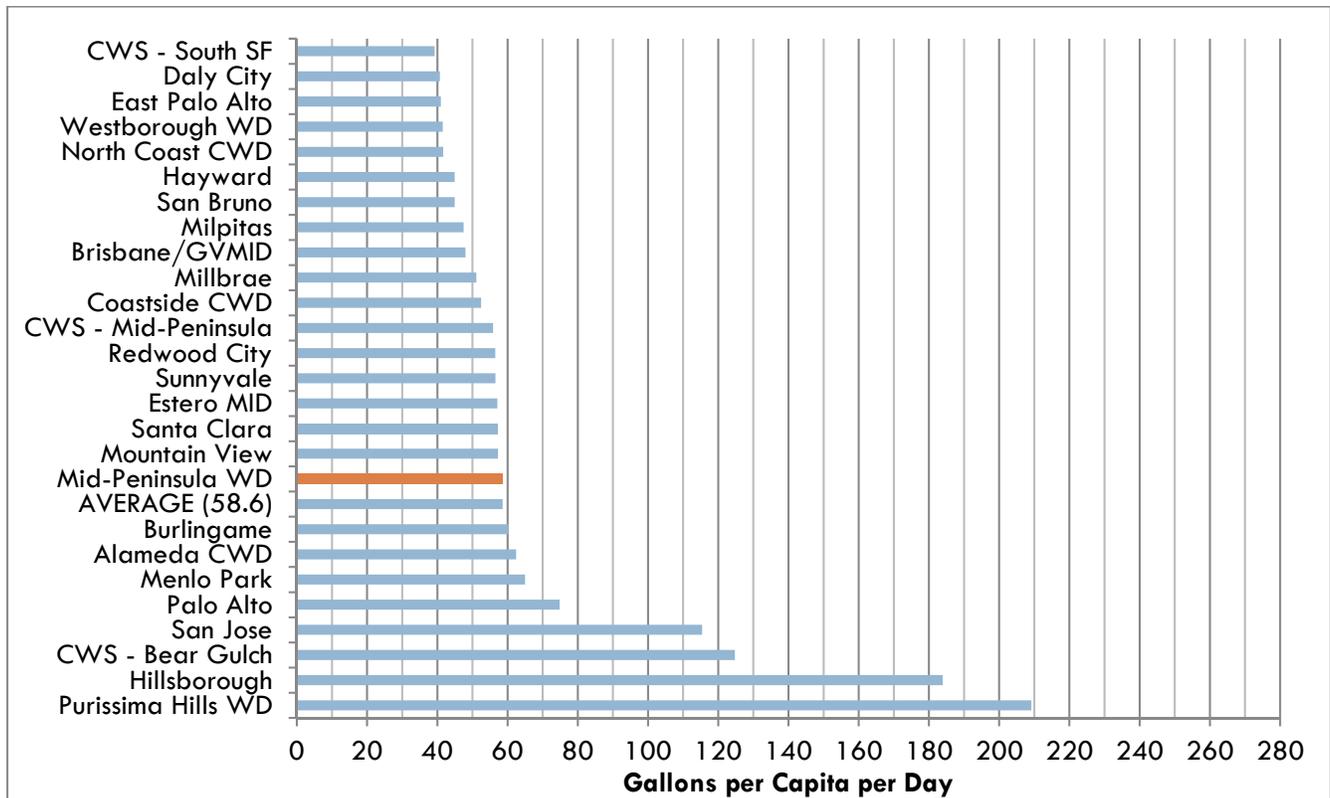
\*San Jose population adjusted in FY 2015-16 based on State methodology required for calculating service area population for the 2015 Urban Water Management Plan. Population listed may not represent an accurate population estimate for the North San Jose sub-area of the San Jose Municipal Water System and does not include recent new multi-family development.

Source: BAWSCA Annual Surveys

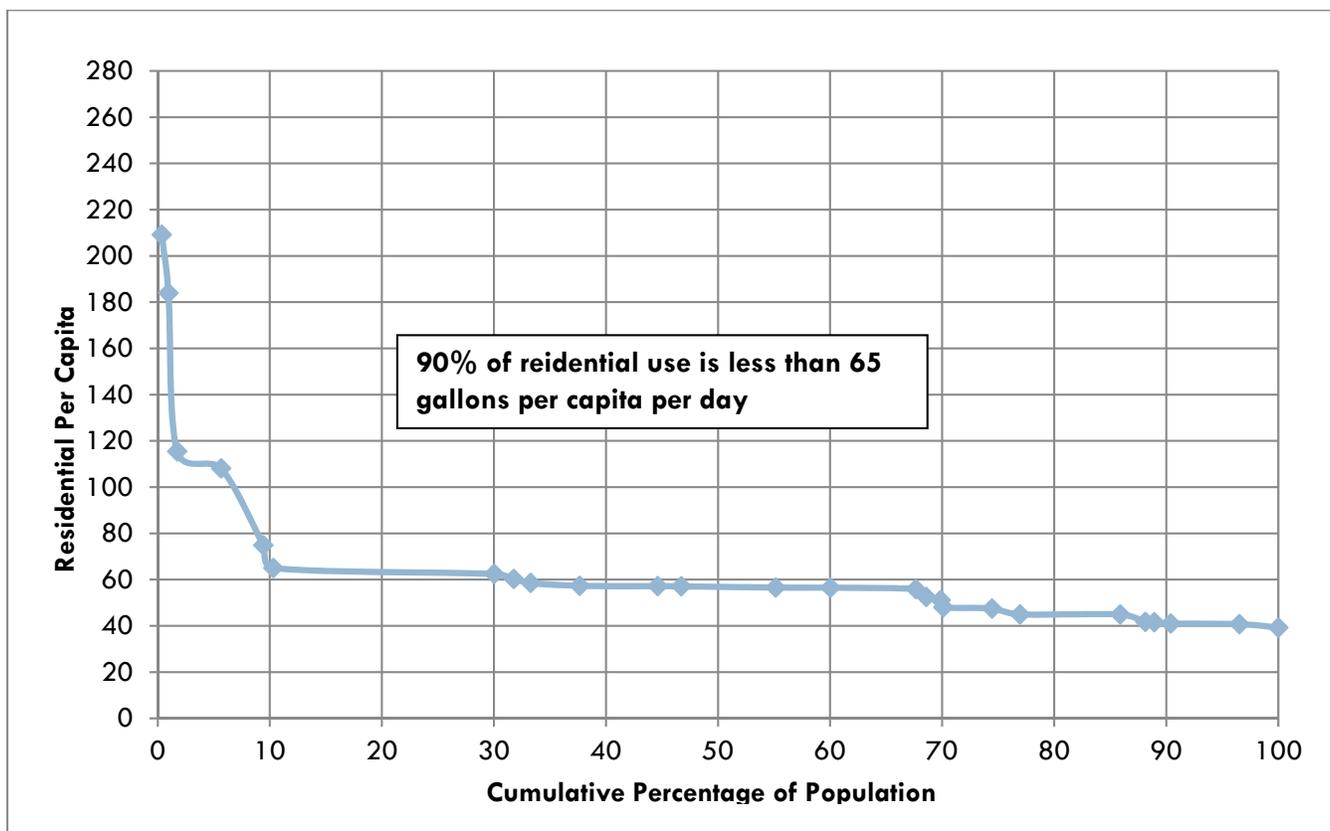
# 7. Current Water Use Per Capita



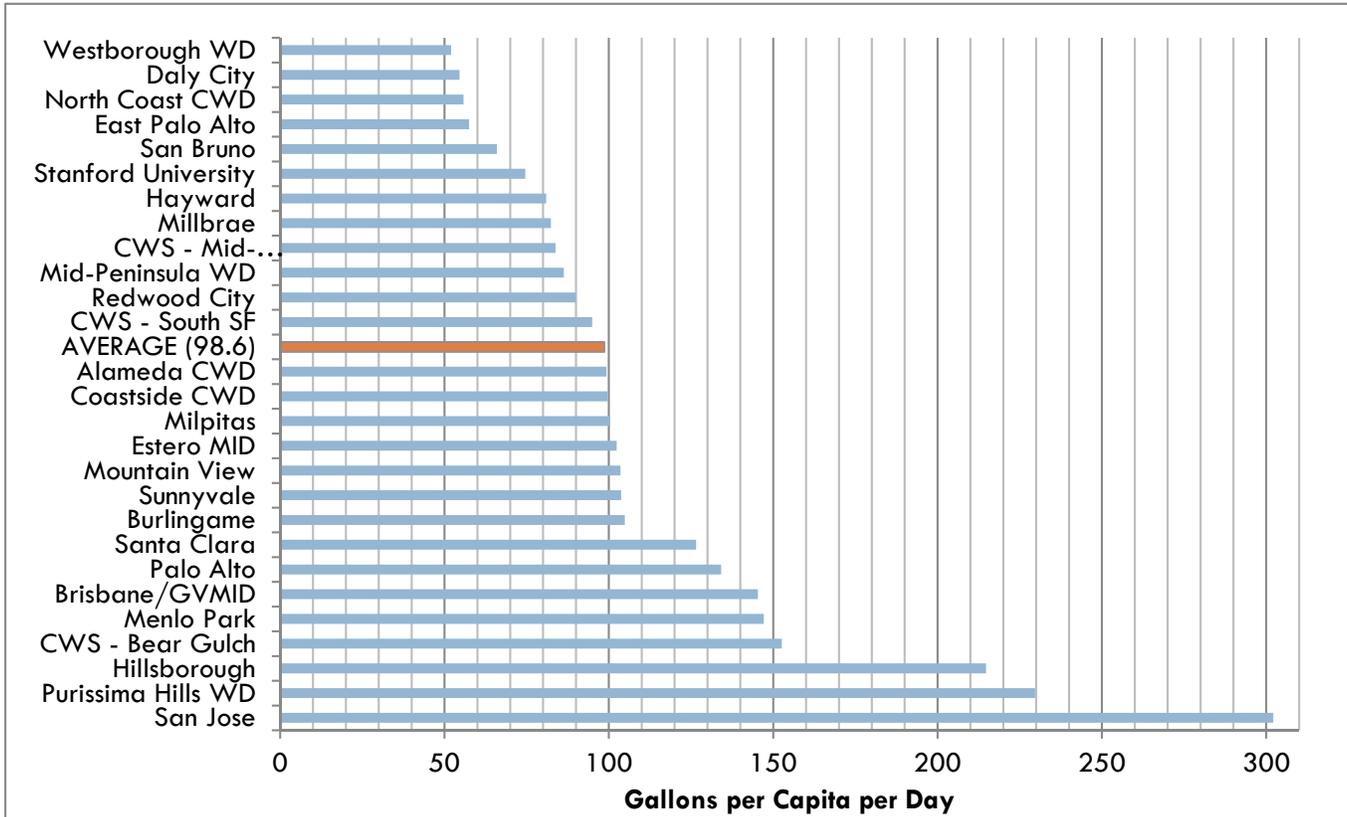
**Figure 7A-1: Residential Per Capita Consumption - FY 2016-17 (in gpcd)**



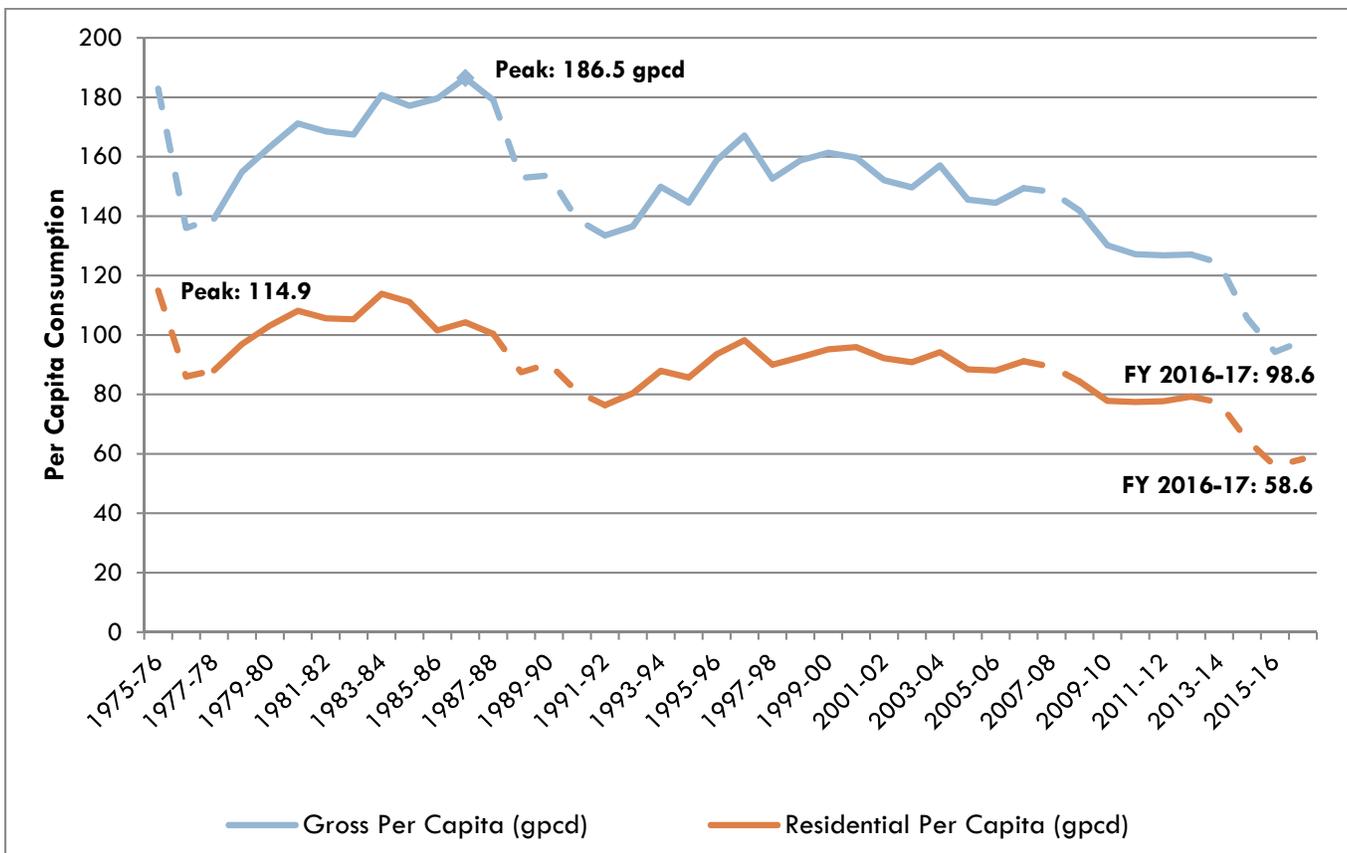
**Figure 7A-2: Residential Per Capita Consumption (in gpcd) Distributed by Percentage of Population- FY 2016-17**



**Figure 7B: Gross Per Capita Consumption(in gpcd) – FY 2016-17**



**Figure 7C: Historical BAWSCA/BAWUA Per Capita Consumption (in gpcd) - 1975-96 to Present**



**Table 7A: Residential Per Capita Consumption and Single-Family Average Monthly Use Among BAWSCA Members - FY 2016-17**

			<b>*Residential Per Capita Consumption</b>	<b>**Single-Family Average Monthly Use</b>
<b>Member</b>	<b>Service Area Population</b>	<b>Residential Consumption* (ccf)</b>	<b>(gpcd)</b>	<b>(ccf)</b>
CWS - South SF	61,769	1,182,800	39.2	6.2
Daly City	109,139	2,170,365	40.8	6.6
East Palo Alto***	26,181	523,703	41.0	11.9
Westborough WD	14,050	284,986	41.6	5.6
North Coast CWD	40,000	813,927	41.7	5.0
Hayward	158,985	3,486,839	44.9	6.2
San Bruno	44,409	974,044	45.0	8.6
Milpitas	77,528	1,797,145	47.5	7.4
Brisbane/GVMID	4,156	97,425	48.0	4.3
Millbrae	22,848	570,181	51.1	6.0
Coastside CWD	16,704	427,958	52.5	5.6
CWS - Mid-Peninsula	135,455	3,693,419	55.9	7.7
Redwood City	87,023	2,399,189	56.5	7.2
Sunnyvale	149,831	4,135,875	56.6	7.9
Estero MID	37,518	1,045,227	57.1	7.8
Santa Clara	123,752	3,452,426	57.2	8.4
Mountain View	77,801	2,175,622	57.3	6.3
Mid-Peninsula WD	26,924	769,601	58.6	6.7
Burlingame	31,109	915,404	60.3	7.5
Alameda CWD	350,538	10,686,198	62.5	8.7
Menlo Park	16,066	509,673	65.0	9.3
Palo Alto	66,930	2,444,032	74.8	9.7
San Jose	13,733	773,467	115.4	6.5
CWS - Bear Gulch	60,513	3,683,770	124.8	17.5
Hillsborough	10,869	975,463	183.9	19.4
Purissima Hills WD	6,150	627,686	209.2	25.3
<b>Average Residential Per Capita Consumption</b>			<b>58.6</b>	
<b>Average Single Family Monthly Use</b>				<b>8.8</b>
*Includes multi-family and single family accounts. Excludes recycled water.				
**Individually metered single family homes, townhouses, and condos.				
***East Palo Alto reports multi-family with single family use.				
<b>Notes:</b> Due to its unique service area, Stanford is excluded.				
<b>Source:</b> BAWSCA FY 2016-17 Annual Survey				

**Table 7B: Gross Per Capita Consumption and Single-Family Average Monthly Use Among BAWSCA Members - FY 2016-17**

			<b>Gross</b>
	<b>Service</b>	<b>*Total</b>	<b>Per Capita</b>
	<b>Area</b>	<b>Consumption</b>	<b>Consumption</b>
<b>Member</b>	<b>Population</b>	<b>(ccf)</b>	<b>(gpcpd)</b>
Westborough WD	14,050	356,722	52.0
Daly City	109,139	2,908,657	54.6
North Coast CWD	40,000	1,089,419	55.8
East Palo Alto	26,181	734,911	57.5
San Bruno	44,409	1,429,544	66.0
Stanford University	31,558	1,148,562	74.6
Hayward	158,985	6,281,522	81.0
Millbrae	22,848	918,695	82.4
CWS - Mid-Peninsula	135,455	5,539,001	83.8
Mid-Peninsula WD	26,924	1,134,389	86.3
Redwood City	87,023	3,820,098	90.0
CWS - South SF	61,769	2,862,074	95.0
Alameda CWD	350,538	16,986,244	99.3
Coastside CWD	16,704	812,567	99.7
Milpitas	77,528	3,797,505	100.4
Estero MID	37,518	1,874,751	102.4
Mountain View	77,801	3,931,559	103.6
Sunnyvale	149,831	7,586,822	103.8
Burlingame	31,109	1,592,044	104.9
Santa Clara	123,752	7,644,247	126.6
Palo Alto	66,930	4,382,560	134.2
Brisbane/GVMID	4,156	294,756	145.3
Menlo Park	16,066	1,153,760	147.2
CWS - Bear Gulch	60,513	4,506,722	152.6
Hillsborough	10,869	1,139,003	214.8
Purissima Hills WD	6,150	689,261	229.7
San Jose**	13,733	2,024,785	302.1
<b>Totals</b>	<b>1,801,539</b>	<b>86,640,180</b>	
		<b>Average gpcpd</b>	<b>98.6</b>
		<b>Median of Agencies</b>	<b>99.7</b>
*Exclusive of recycled water; inclusive of unaccounted for water.			
**Service area predominantly commercial/industrial.			
<b>Source:</b> BAWSCA FY 2016-17 Annual Survey			

**Table 7C: Historical BAWUA/BAWSCA Per Capita Data (1975-76 to Present)**

Year	Service Area Population*	Water Usage** (mgd)	Gross Per Capita (gpcd)	Residential Per Capita (gpcd)
1975-76	1,162,143	212.5	182.9	114.9
1976-77	1,176,655	160.1	136.0	86.0
1977-78	1,186,121	165.1	139.2	88.1
1978-79	1,192,776	184.7	154.9	96.9
1979-80	1,205,079	196.8	163.3	103.2
1980-81	1,216,827	208.3	171.2	108.1
1981-82	1,229,452	207.2	168.5	105.6
1982-83	1,248,928	209.2	167.5	105.3
1983-84	1,294,730	234.1	180.8	113.9
1984-85	1,310,389	232.2	177.2	111.1
1985-86	1,378,899	247.7	179.6	101.5
1986-87	1,397,010	260.6	186.5	104.3
1987-88	1,420,326	254.3	179.1	100.4
1988-89	1,427,372	218.1	152.8	87.5
1989-90	1,456,522	224.0	153.8	90.3
1990-91	1,470,633	204.4	139.0	81.0
1991-92	1,474,042	196.8	133.5	76.4
1992-93	1,496,205	204.3	136.6	80.4
1993-94	1,516,040	227.2	149.9	88.0
1994-95	1,529,829	221.1	144.5	85.7
1995-96	1,536,586	244.0	158.8	93.5
1996-97	1,556,641	260.2	167.1	98.2
1997-98	1,581,970	241.5	152.7	90.0
1998-99	1,602,708	254.4	158.7	92.5
1999-00	1,620,307	261.5	161.4	95.2
2000-01	1,634,308	261.0	159.7	95.9
2001-02	1,653,618	251.5	152.1	92.2
2002-03	1,645,338	246.3	149.7	90.8
2003-04	1,651,678	259.4	157.1	94.2
2004-05	1,646,804	239.7	145.6	88.4
2005-06	1,656,543	239.4	144.5	88.1
2006-07	1,674,100	250.2	149.4	91.1
2007-08	1,690,931	250.7	148.2	89.3
2008-09	1,705,837	242.0	141.9	84.4
2009-10	1,719,028	223.8	130.2	77.8
2010-11	1,701,756	216.4	127.2	77.4
2011-12	1,709,230	216.8	126.8	77.7
2012-13	1,724,014	219.1	127.1	79.3
2013-14	1,742,697	216.7	124.3	77.3
2014-15	1,773,889	187.5	105.7	64.7
2015-16	1,781,530	168.1	94.3	55.9
2016-17	1,801,539	177.6	98.6	58.6

\*All BAWUA/BAWSCA agencies reporting, including Stanford.

\*\*Water usage totals include unaccounted for water; exclude recycled water.

**Note:** Population figures shown above may not always match those figures shown in past annual surveys due to corrected data. Also, to conform with standardized reporting of gross per capita use, recycled water use has been removed from total water usage data starting in FY 1997-98.

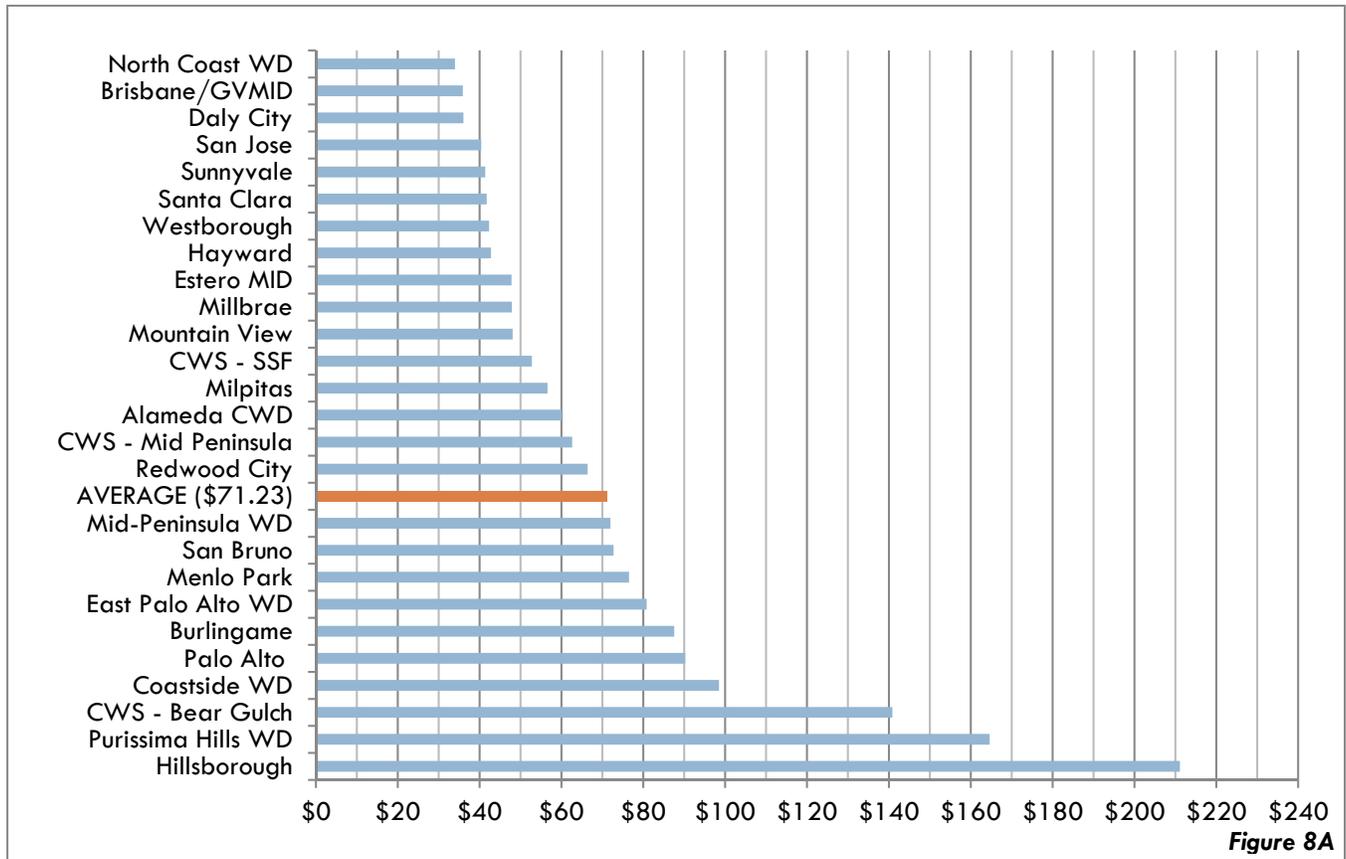
**Source:** BAWUA/BAWSCA Annual Surveys / Historical Data Files



## 8. Current Residential Water Bills

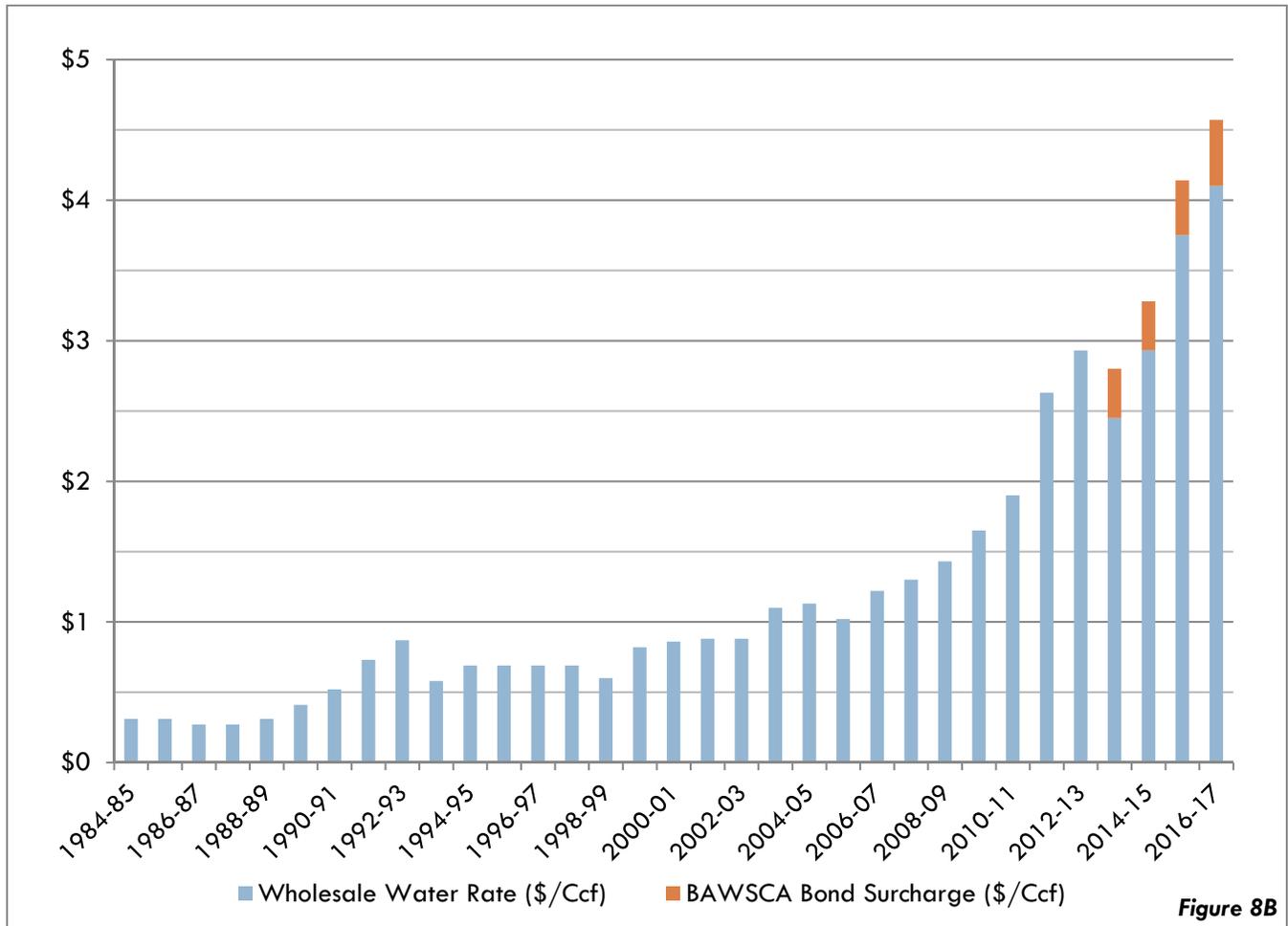


**Figure 8A: Single Family Water Bills Based on Average Monthly Use Using Rates in Effect for FY 2016-17**



**Figure 8A**

**Figure 8B: Historical and Current SF RWS Wholesale Water Rates and BAWSCA Bond Surcharges  
FY 1985-85 to Present**



**Figure 8B**

**Table 8A: Single Family Water Bills\* Based on Average Monthly Use for FY 2016-17, Using Rates in Effect for FY 2016-17**

**Inclusive of all BAWSCA agencies except Stanford; California Water Service is separated into its three service areas.**

<b>Member</b>	<b>Municipalities Average Monthly Use (ccf)</b>	<b>Special Districts Average Monthly Use (ccf)</b>	<b>All Agencies Average Monthly Bill</b>
North Coast CWD		5.0	\$34.00
Brisbane/GVMID	4.3		\$35.89
Daly City	6.6		\$36.08
San Jose	6.5		\$40.42
Sunnyvale	7.9		\$41.38
Santa Clara	8.4		\$41.76
Westborough WD		5.6	\$42.32
Hayward	6.2		\$42.79
Estero MID		7.8	\$47.83
Millbrae	6.0		\$47.90
Mountain View	6.3		\$48.10
CWS - South SF		6.2	\$52.79
Milpitas	7.4		\$56.62
Alameda CWD		8.7	\$60.03
CWS - Mid-Peninsula		7.7	\$62.62
Redwood City	7.2		\$66.39
Mid-Peninsula WD		6.7	\$71.98
San Bruno	8.6		\$72.76
Menlo Park	9.3		\$76.52
East Palo Alto	11.9		\$80.86
Burlingame	7.5		\$87.59
Palo Alto	9.7		\$90.27
Coastside CWD		5.6	\$98.49
CWS - Bear Gulch		17.5	\$140.87
Purissima Hills WD		25.3	\$164.65
Hillsborough	19.4		\$211.13
<b>Total Averages</b>	<b>8.3</b>	<b>9.6</b>	<b>\$71.23</b>

\* Inclusive of any service charge.

**Note:** Differences in average monthly bills may reflect local capital improvements or maintenance expenditures, the size of the rate base, the extent to which revenue is generated through connections, and other factors.

**Source:** BAWSCA FY 2016-17 Annual Survey

**Table 8B: Single Family Water Bills\* Based on Average Monthly Use for FY 2016-17, Using Rates in Effect for FY 2016-17**

**Inclusive of Service Charge (1 of 3)**

Member/ Average Monthly Use (Units)	Billing Cycle	Service Charge	Rate per ccf	Rate Blocks (ccf)	Total Monthly Bill	Effective:	Remarks
<b>Alameda CWD</b> 8.7	Bimonthly	\$49.84	\$4.05		\$60.03	Effective:	3/1/2017 Does not include drought surcharge
<b>Brisbane/Guadalupe Valley MID</b> 4.3	Bimonthly	\$22.67	\$5.19	1 - 3	\$35.89	Effective:	12/31/2016
			\$7.00	4 - 8			
			\$8.69	9 - 16			
			\$11.05	17 +			
<b>Burlingame</b> 7.5	Bimonthly	\$72.72	\$6.34	0.0 - 5.4	\$87.59	Effective:	1/1/2017
	Up to 3/4- inch meter		\$7.11	5.4 - 10.7			
			\$7.88	10.7 - 21.4			
			\$8.66	21.4 - 32.1			
			\$9.43	32.1 +			
<b>CWS - Bear Gulch</b> 17.5	Monthly	\$19.61	\$6.73	1 - 10	\$140.87	Effective:	7/15/2016
	5/8 x 3/4 inch meter		\$7.15	11 - 35			
			\$8.56	35 +			
<b>CWS - Mid Peninsula</b> 7.7	Monthly	\$14.70	\$6.18	0 - 7	\$62.62	Effective:	1/1/2017
	5/8 x 3/4 inch meter		\$6.65	8 - 12			
			\$8.24	13 +			
<b>CWS - South San Francisco</b> 6.2	Monthly	\$14.70	\$6.18	1 - 7	\$52.79	Effective:	1/1/2017
	5/8 x 3/4 inch meter		\$6.65	8 - 12			
			\$8.24	13 +			
<b>Coastside CWD</b> 5.6	Bimonthly	\$47.45	\$9.19	1 - 4	\$98.49	Effective:	7/1/2016
	5/8-inch meter		\$10.26	5 - 16			
			\$13.23	17 - 30			
			\$17.53	31 +			
<b>Daly City</b> 6.6	Bimonthly	\$28.20	\$3.35	0 - 14	\$36.08	Effective:	7/1/2016
	Up to 3/4- inch meter		\$7.67	15 +			
<b>East Palo Alto</b> 11.9	Bimonthly	\$15.34	\$6.16		\$80.86	Effective:	7/1/2016
	5/8 inch meter						
<b>Estero MID</b> 7.8	Bimonthly	\$17.25	\$5.03	0 - 20	\$47.83	Effective:	1/1/2017
			\$6.06	20 +			

\* Average single family use among BAWSCA agencies varies from 4.3 to 29.5 units per month. 1 unit = 1 ccf. Includes individually metered single family homes, townhouses, and condos. It is calculated by dividing single family water use (Table 4A) by the number of single family accounts (Table 4B); divided by 12.

**Table 8B: Single Family Water Bills\* Based on Average Monthly Use for FY 2016-17, Using Rates in Effect for FY 2016-17****Inclusive of Service Charge (2 of 3)**

Member/ Average Monthly Use (Units)	Billing Cycle	Service Charge	Rate per ccf	Rate Blocks		Total Monthly Bill	Effective:	Remarks
				(ccf)	(ccf)			
<b>Hayward</b>	Bimonthly	\$14.00	\$5.80	1 -	8	\$42.79	Effective:	10/1/2016
6.2	5/8-inch meter		\$7.14	9 -	25			
			\$8.41	26 +				
<b>Hillsborough</b>	Monthly	\$60.00	\$7.14	0 -	10	\$211.13	Effective:	1/1/2017
19.4	Up to 1-inch meter		\$8.44	10 -	25			
			\$9.68	25 -	50			
			\$11.58	50 -	100			
			\$14.18	100 +				
<b>Menlo Park</b>	Monthly	\$20.08	\$5.01	0 -	0	\$76.52	Effective:	7/1/2017
9.3	0 inch meter		\$6.09	0 +				
<b>Mid-Peninsula WD</b>	Monthly	\$22.00	\$5.62	0 -	2	\$71.98	Effective:	7/1/2016
6.7	5/8-inch meter		\$8.22	3 -	9			
			\$9.82	10 -	22			
			\$11.42	55 +				
<b>Millbrae</b>	Bimonthly	\$30.00	\$5.45			\$47.90	Effective:	7/1/2016
6.0								
<b>Milpitas</b>	Bimonthly	\$18.00	\$6.43			\$56.62	Effective:	4/1/2016
7.4	5/8-inch meter							
<b>Mountain View</b>	Bimonthly	\$12.70	\$4.76	0 -	3	\$48.10	Effective:	7/1/2016
6.3	Single-family accounts		\$6.35	3 -	15			
			\$10.16	15 +				
<b>North Coast CWD</b>	Bimonthly	\$26.76	\$4.10	1 -	5	\$34.00	Effective:	1/1/2017
5.0			\$6.66	6 -	10			
			\$10.75	11 -	19			
			\$17.36	20 +				
<b>Palo Alto</b>	Monthly	\$16.03	\$6.66	0 -	6	\$90.27	Effective:	7/1/2017
9.7	5/8-inch meter		\$9.18	7 +				
<b>Purissima Hills WD</b>	Monthly	\$15.00	\$5.01	1 -	10	\$164.65	Effective:	12/31/2016
25.3	3/4-inch meter		\$6.52	11 -	30			
			\$8.46	31 -	60			
			\$10.39	61 -	100			
			\$12.33	101 +				

\* Average single family use among BAWSCA agencies varies from 4.1 to 23.8 units per month. 1 unit = 1 ccf. Includes individually metered single family homes, townhouses, and condos. It is calculated by dividing single family water use (Table 4A) by the number of single family accounts (Table 4B); divided by 12.

**Table 8B: Single Family Water Bills\* Based on Average Monthly Use for FY 2016-17, Using Rates in Effect for FY 2016-17**

**Inclusive of Service Charge (3 of 3)**

Member/ Average Monthly Use (Units)	Billing Cycle	Service Charge	Rate per ccf	Rate Blocks (ccf)	Total Monthly Bill	Effective:	Remarks
<b>Redwood City</b> 7.2	Bimonthly	\$56.98	\$5.27	0 - 8 9 - 20 21 - 40 41 +	\$66.39	8/1/2016	
<b>San Bruno</b> 8.6	Bimonthly 3/4 inch meter	\$19.49	\$7.36 \$8.83 \$11.78	0 - 10 11 - 20 21 +	\$72.76	7/1/2017	
<b>San Jose MWD-N</b> 6.5	Bimonthly 5/8-inch meter	\$32.02	\$3.74 \$4.31	0 - 7 7 +	\$40.42	7/1/2016	
<b>Santa Clara</b> 8.4	Monthly	\$4.16	\$4.95		\$41.76	12/31/2016	Service charge is the minimum monthly charge, not added if usage is greater than the minimum charge.
<b>Sunnyvale</b> 7.9	Bimonthly 5/8 x 3/4 inch meter	\$18.80	\$3.75 \$4.58 \$0.00 \$0.00	0 - 5 6 - 0 0 - 0 0 +	\$5.25	7/1/2016	
<b>Westborough WD</b> 5.6	Bimonthly	\$12.70	\$6.48		\$42.32	7/1/2016	

\* Average single family use among BAWSCA agencies varies from 4.1 to 23.8 units per month. 1 unit = 1 ccf. Includes individually metered single family homes, townhouses, and condos. It is calculated by dividing single family water use (Table 4A) by the number of single family accounts (Table 4B); divided by 12.

<b>Summary Billing Information</b>		<b>Average</b>
	<b>**Average</b>	<b>Monthly</b>
	<b>Monthly</b>	<b>Service</b>
	<b>Bill</b>	<b>Charge</b>
All BAWSCA Agencies	\$71.23	\$14.96
Municipal Agencies Only	\$66.37	\$15.29
Special Districts / Private	\$77.86	\$14.52
** Inclusive of service charge		
Source: BAWSCA FY 2016-17 Annual Survey		

**Table 8C: SF RWS Wholesale Water Rates and BAWSCA Bond Surcharges  
FY 1984-85 to Present**

Year	Wholesale Water Rate (\$/Ccf)	BAWSCA Bond Surcharge (\$/Ccf)
1984-85	\$ 0.31	\$ -
1985-86	\$ 0.31	\$ -
1986-87	\$ 0.27	\$ -
1987-88	\$ 0.27	\$ -
1988-89	\$ 0.31	\$ -
1989-90	\$ 0.41	\$ -
1990-91	\$ 0.52	\$ -
1991-92	\$ 0.73	\$ -
1992-93	\$ 0.87	\$ -
1993-94	\$ 0.58	\$ -
1994-95	\$ 0.69	\$ -
1995-96	\$ 0.69	\$ -
1996-97	\$ 0.69	\$ -
1997-98	\$ 0.69	\$ -
1998-99	\$ 0.60	\$ -
1999-00	\$ 0.82	\$ -
2000-01	\$ 0.86	\$ -
2001-02	\$ 0.88	\$ -
2002-03	\$ 0.88	\$ -
2003-04	\$ 1.10	\$ -
2004-05	\$ 1.13	\$ -
2005-06	\$ 1.02	\$ -
2006-07	\$ 1.22	\$ -
2007-08	\$ 1.30	\$ -
2008-09	\$ 1.43	\$ -
2009-10	\$ 1.65	\$ -
2010-11	\$ 1.90	\$ -
2011-12	\$ 2.63	\$ -
2012-13	\$ 2.93	\$ -
2013-14	\$ 2.45	\$ 0.35
2014-15	\$ 2.93	\$ 0.35
2015-16	\$ 3.75	\$ 0.39
2016-17	\$ 4.10	\$ 0.47

\*In 2013, BAWSCA issued Revenue Bonds (Series 2013A and 2013B) to prepay the remaining capital cost recovery payments that the BAWSCA member agencies owed the the SFPUC as of June 30, 2013. Beginning in FY 2013-14, BAWSCA began collecting a fixed bond surcharge from each member agency, as a separate item on the monthly water bills from the SFPUC, to make debt service payments on the revenue bonds, reimburse bond administration expenses, and, as necessary, replenish a stabilization fund set up to limit the volatility in annual changes in the payments.



## 9. Agency Profiles



## Alameda County Water District

43885 South Grimmer Boulevard  
Fremont, California 94538-6348

Phone: (510) 668-4200 Fax: (510) 656-3426

Web: <http://www.acwd.org>

### Service Area

Alameda County Water District (ACWD) supplies water to the cities of Fremont, Newark, and Union City.

### System

#### Profile

Area Size	104.8 sq. miles
Service Population	350,538
Number of Accounts	84,516
Number of SF RWS Connections	8
Connections To SF RWS Mains	BDPL 1, 2, 3, 4 and 5
Avg. Day Demand (mgd)	34.81
Avg. Day Purchases From SF RWS (mgd)	6.22
% Demand Met With SF RWS Supplies	18%
Maximum Local Water Production (mgd)	86.5 mgd (Source: ACWD Engineering Report 2011, and includes WTP2, Blending Facility, Desal, and Direct Takeoffs from SFPUC)
Alternative Supply Sources	SF RWS, State Water Project (SWP), Local Groundwater
Interties With Other Agencies	Milpitas, Hayward
Local Storage (mg)	85.0 maximum capacity – volume in storage is typically 60 to 80% based on seasonal operating conditions
Days of Storage	1.7 – based on maximum capacity storage and average daily demand

### Summary

ACWD currently has three primary sources of water supply: (1) the State Water Project (SWP), (2) San Francisco's Regional Water System and (3) local supplies. The SWP and San Francisco Regional Water Supplies are imported into the District service area through the South Bay Aqueduct and Hetch-Hetchy Aqueduct, respectively. Local supplies include fresh groundwater from the Niles Cone Groundwater Basin (underlying the District service area), desalinated brackish groundwater from portions of the groundwater basin previously impacted by seawater intrusion, and surface water from the Del Valle Reservoir. The primary source of recharge for the Niles Cone Groundwater Basin is from percolation of runoff from the Alameda Creek watershed. To a lesser degree, a portion of ACWD's SWP supplies are also used for local groundwater percolation. Infiltration of rainfall and applied water also contribute to local groundwater recharge.

Before being supplied to ACWD's customers, the source water supplies are treated to meet and surpass all state and federal drinking water standards. ACWD operates two surface water

treatment plants that treat SWP and local surface water from Del Valle Reservoir. The Newark Desalination Facility treats brackish groundwater to remove salts and other impurities, and the Blending Facility blends high quality San Francisco water with local fresh groundwater (with higher hardness) to provide a blended supply with lower overall hardness.

Over the 2000-2015 period, 39% of the District's distribution system water supply was from the State Water Project. This water was either purified at one of ACWD's two water treatment plants or used to recharge local aquifers. Water from the San Francisco Regional System provided approximately 24% of the distribution system water supply and local supplies from Del Valle Reservoir and groundwater (recharged from runoff from the Alameda Creek Watershed and infiltration of rainfall and applied water) accounted for the balance (about 38%) of the distribution system supplies. (Percentage values do not add up to 100% due to rounding).

### Water Supply and Demand

Supply by Source	Actual FY 13-14 (ccf)	Actual FY 14-15 (ccf)	Actual FY 15-16 (ccf)	Actual FY 16-17 (ccf)
San Francisco Water	5,684,759	3,770,321	3,037,166	3,081,217
State Water Project	7,228,782	6,304,439	4,766,541	3,644,398
Desalinated Water	3,666,711	3,554,813	3,328,476	3,428,770
Local Groundwater	3,625,802	2,591,578	2,267,513	2,908,717
Surface Water	67,954	520,561	2,405,251	3,923,142
Recycled Water	0	0	0	0
<b>Total</b>	<b>20,274,008</b>	<b>16,751,711</b>	<b>15,804,947</b>	<b>16,986,243</b>
<b>mgd equivalent</b>	<b>41.55</b>	<b>34.33</b>	<b>32.39</b>	<b>34.81</b>

### Demand by Sector

Residential	12,967,918	10,337,623	9,278,709	10,686,198
Commercial/Industrial	3,205,437	2,983,057	2,846,250	2,999,503
Other	878,299	658,676	553,225	647,774
Dedicated Irrigation	2,269,912	1,590,737	1,203,688	1,545,155
Unaccounted for	952,441	1,181,616	1,923,075	1,107,614
<b>Total</b>	<b>20,274,008</b>	<b>16,751,711</b>	<b>15,804,947</b>	<b>16,986,243</b>
<b>mgd equivalent</b>	<b>41.55</b>	<b>34.31</b>	<b>32.39</b>	<b>34.81</b>

Per Capita Use	Actual FY 13-14 (gpcpd)	Actual FY 14-15 (gpcpd)	Actual FY 15-16 (gpcpd)	Actual FY 16-17 (gpcpd)
Residential	78	62	55	62
Gross	122	100	93	99

**Storage Reservoirs**

Designation	Capacity (gallons)	Designation	Capacity (gallons)
Alameda	16,250,000	Mayhew	4,300,000
Appian	780,000	Middlefield	7,230,000
Avalon	2,700,000	Ohlone	1,500,000
Canyon Heights	510,000	Patterson	14,210,000
Decoto	14,550,000	Vineyard Heights	540,000
Hidden Valley	2,000,000	Whitfield	20,400,000
		<b>Total</b>	<b>84,970,000</b>

ACWD Engineering Report, 2011.

**Water Treatment Facilities**

Designation	Capacity (mgd)	Status	Designation	Capacity (mgd)	Status
WTP #2	22	Active	Mission San Jose WTP	3.2	Inactive
Blending Facility	48	Active	Newark Desalination Facility	12.5	Active
			<b>Total</b>	<b>86.5</b>	

**Wells**

Name	Capacity (mgd)	Status	Name	Capacity (mgd)	Status
Mowry 1	1.4	Active	PT 1	3.4	Active
Mowry 2	3.2	Active	PT 2	3.4	Active
Mowry 3	3.2	Active	PT 3	3.4	Active
Mowry 4	3.0	Active	PT 4	3.4	Active
Mowry 6	3.3	Active	PT 5	3.4	Active
Mowry 7	3.3	Active	PT 6	3.4	Active
Mowry 8	3.0	Active	PT 7	3.4	Active
Mowry 9	3.3	Active	PT 8	3.4	Active
			<b>Total</b>	<b>50.9</b>	

**Interties**

Name	No.	Diameter* (in.)
Hayward	1	12
Hayward	2	**
Milpitas	1	8
Milpitas	2	8

\*Diameter of main connected

\*\*3.6 mgd connection to Hayward's SF RWS Line

**City of Brisbane /  
Guadalupe Valley Municipal Improvement District**

50 Park Lane

Brisbane, CA 94005

Phone: (415) 508-2130 Fax: (415) 467-5547

Web: <http://www.ci.brisbane.ca.us/html/cityDept/pw/water.asp>

**Service Area**

The City of Brisbane, located in north San Mateo County, operates both the City of Brisbane Water District and the Guadalupe Valley Municipal Improvement District (GVMID), an area within the Brisbane city limits composed of an industrial park development and a small residential enclave.

**System**

**Profile**

Area Size	3.4 square miles
Service Population*	4,156
Number of Accounts	2,040
Number of SF RWS Connections	5
Connections To SF RWS Mains	Crystal Springs Pipeline #1 and #2
Avg. Day Demand (mgd)	0.60
Avg. Day Purchases From SF RWS (mgd)	0.53
% Demand Met With SF RWS Supplies	100.0%
Maximum Local Water Production (mgd)	0
Alternative Supply Sources	None
Interties With Other Agencies	CWS South San Francisco, Daly City
Local Storage (mg)	2.9
Days of Storage	3 – Combined storage. All zones can meet the 8 hr criteria either separately or by pumping from zones with excess capacity.

\*Service population is based on the 2010 U.S. Census data for the City of Brisbane.

**Summary**

The City of Brisbane's only source of potable water is supplied through 3 turnouts off the Crystal Springs #1 and #2 Pipelines. The Brisbane distribution system is comprised of 4 pressure zones, and is operated as a combined system with GVMID Water District.

The GVMID's only source of potable water is supplied through 2 turnouts off the Crystal Springs #1 and #2 Pipelines. The GVMID distribution system is comprised of 4 pressure zones, and is operated as a combined system with the City of Brisbane Water District.

**Water Supply and Demand**

<b>Supply by Source</b>	<b>Actual FY 13-14 (ccf)</b>	<b>Actual FY 14-15 (ccf)</b>	<b>Actual FY 15-16 (ccf)</b>	<b>Actual FY 16-17 (ccf)</b>
San Francisco Water	302,776	280,029	257,414	294,756
Recycled Water	0	0	0	0
Other	0	0	0	0
<b>Total</b>	<b>302,776</b>	<b>280,029</b>	<b>257,414</b>	<b>294,756</b>
<b>mgd equivalent</b>	<b>0.62</b>	<b>0.57</b>	<b>0.53</b>	<b>0.60</b>

**Demand by Sector**

Residential	102,695	93,420	89,940	97,425
Commercial/Industrial	77,363	85,018	99,719	110,718
Other	13,488	4,795	3,825	10,803
Dedicated Irrigation	89,577	76,522	43,195	48,045
Unaccounted for	19,653	20,274	20,735	27,765
<b>Total</b>	<b>302,776</b>	<b>280,029</b>	<b>257,414</b>	<b>294,756</b>
<b>mgd equivalent</b>	<b>0.62</b>	<b>0.57</b>	<b>0.53</b>	<b>0.60</b>

<b>Per Capita Use</b>	<b>Actual FY 13-14 (gpcpd)</b>	<b>Actual FY 14-15 (gpcpd)</b>	<b>Actual FY 15-16 (gpcpd)</b>	
Residential	49	45	40	48
Gross	145	134	116	145

**Note:** Beginning in FY 2009-10, Brisbane and GVMID source, demand, and per capita use data is reported together as a combined Brisbane/GVMID District.

**Facilities and Distribution****Storage Reservoirs**

<b>Designation</b>	<b>Type</b>	<b>Capacity (gallons)</b>
Glen Park Tank 1 (Brisbane)	Steel	200,000
Glen Park Tank 2 (Brisbane)	Steel	200,000
Guadalupe Tank (Brisbane)	Steel	1,000,000
Crocket Tank (GVMID)	Steel	500,000
Margaret Tank (GVMID)	Steel	500,000
<b>Total</b>		<b>2,900,000</b>

**Interties**

<b>Name</b>	<b>No.</b>	<b>Diameter (in.)</b>
CWS - South San Francisco	1	16
Daly City	2	6, 12
GVMID	3	12, 12, 12

## City of Burlingame

501 Primrose Road  
 Burlingame, California 94010-3997  
 Phone: (650) 558-7230 Fax (650) 685-9310  
 Web: <http://www.burlingame.org/>

### Service Area

The City of Burlingame is located in central San Mateo County. Burlingame's water system serves the entire area within its city limits, portions of the unincorporated Burlingame Hills area, and a few properties in San Mateo and Hillsborough.

### System

#### Profile

Area Size	5.5 square miles
Service Population	31,109
Number of Accounts	9,194
Number of SF RWS Connections	6
Connections To SF RWS Mains	Crystal Springs #2 and #3, Sunset Pipeline
Avg. Day Demand (mgd)	3.56
Avg. Day Purchases From SF RWS (mgd)	3.26
% Demand Met With SF RWS Supplies	92%
Maximum Local Water Production (mgd)	0
Alternative Supply Sources	None
Interties With Other Agencies	California Water Service Company (CWS) – City of San Mateo, Town of Hillsborough, City of Millbrae
Local Storage (mg)	2.941
Days of Storage	1.2 days in six out of eight zones on maximum day, the remaining two zones have 0.2 days.

#### Summary

The City of Burlingame receives all of its water supply from six SF RWS turnouts located along El Camino Real. Water is pumped from the turnouts to five storage tanks and to two reservoirs located at higher elevations in the City's distribution system.

Burlingame's water system is divided into two sections. Water for the hills area is supplied by water pumped into tanks and reservoirs; and water for the lower elevation area is supplied directly from the SF RWS turnouts.

For emergency water supply, Burlingame has connections to California Water Service Company, which serves the City of San Mateo, and connections to the Town of Hillsborough and the City of Millbrae water systems.

**Water Supply and Demand**

Supply by Source	Actual FY 13-14 (ccf)	Actual FY 14-15 (ccf)	Actual FY 15-16 (ccf)	Actual FY 16-17 (ccf)
San Francisco Water	2,001,619	1,791,539	1,505,779	1,592,044
Recycled Water	146,400	146,400	146,388	146,400
Other	0	0	0	0
<b>Total</b>	<b>2,001,619</b>	<b>1,937,939</b>	<b>1,652,167</b>	<b>1,738,444</b>
<b>mgd equivalent</b>	<b>4.40</b>	<b>3.97</b>	<b>3.39</b>	<b>3.56</b>

**Demand by Sector**

Residential	1,179,652	1,000,212	855,442	915,404
Commercial/Industrial	426,610	436,073	457,266	433,018
Other	135,455	36,765	35,083	39,480
Dedicated Irrigation	103,322	83,796	55,755	213,269
Unaccounted for	302,980	381,093	55,755	137,273
<b>Total</b>	<b>2,001,619</b>	<b>1,937,939</b>	<b>1,652,167</b>	<b>1,738,444</b>
<b>mgd equivalent</b>	<b>4.40</b>	<b>3.97</b>	<b>3.39</b>	<b>3.56</b>

Per Capita Use	Actual FY 13-14 (gpcpd)	Actual FY 14-15 (gpcpd)	Actual FY 15-16 (gpcpd)	Actual FY 16-17 (gpcpd)
Residential	80	62	56	60
Gross	135	111	99	105

**Facilities and Distribution****Storage Reservoirs**

Designation	Type	Capacity (gallons)	Designation	Type	Capacity (gallons)
Alcazar Tanks	Dual, Circular, Steel	100,000	Hillside Reservoir	Rectangular, Concrete	1,500,000
Donnelly Tanks	Dual, Circular, Steel	100,000	Mills Tank	Circular, Prestressed Concrete	1,071,000
			Skyview Reservoir	Rectangular, Concrete	170,000
<b>Total</b>					<b>2,941,000</b>

**Interties**

Name	No.	Diameter (in.)	Name	No.	Diameter (in.)
CWS – City of San Mateo	2	6	Millbrae	2	6
	1	8		3	8
Hillsborough	4	6		1	10
				2	12

## California Water Service - Bear Gulch District

3525 Alameda De Las Pulgas  
Menlo Park, California 94025

Phone: (650) 561-9709 Fax (650) 561-9723

Web: <http://www.calwater.com>

### Service Area

The Bear Gulch District is located in southern San Mateo County, and serves the communities of Atherton, Portola Valley, Woodside, parts of Menlo Park, parts of unincorporated Redwood City, and adjacent unincorporated portions of San Mateo County including: West Menlo Park, Ladera, North Fair Oaks, and Menlo Oaks.

Cal Water acquired the Los Trancos County Water District in 2005, and acquired both Skyline County Water District and Woodside Mutual Water Company in 2009, incorporating them into the Bear Gulch District. These systems serve rural communities along Highway 35 between Page Mill Road and Highway 92.

### System

**Note:** Skyline system totals are included in the Profile and Summary numbers. Skyline's portion of the total is shown in parentheses.

#### Profile

Area Size	45.3 square miles
Service Population	69,857
Number of Accounts	18,568
Number of SF RWS Connections	8
Connections To SF RWS Mains	BDPL 1 and 2, BDPL 3 and 4, Palo Alto Pipeline, (Bay Crossing 1 and 2)
Avg. Day Demand (mgd)	9.24
Avg. Day Purchases From SF RWS (mgd)	7.92
% Demand Met With SF RWS Supplies	91%
Maximum Local Water Production (mgd)	6.028 (0.028)
Alternative Supply Sources	Local Surface Water, Local Groundwater-(Skyline system only)
Interties With Other Agencies	Redwood City, Menlo Park, (None)
Local Storage (mg)	11.3 Treated, 215 Untreated
Days of Storage	0.92 - Length of storage based on loss of all sources of supply. All zones can meet the 8 hr criteria either separately or by pumping from zones with excess capacity. Could increase use of Bear Gulch reservoir in an emergency to meet partial demand.

#### Summary

The Bear Gulch District receives 85% to 95% of its daily supply from the SF RWS, with the balance supplied by surface water runoff from California Water Service Company's own watershed. The water is stored in the 215 million gallon Bear Gulch Reservoir, and treated at the 6 mgd Station 2 Filter Plant before distribution. The Skyline system is not hydraulically connected

to the Bear Gulch system and receives 100% of its supply from the SF RWS. The Woodside Mutual system has been connected to the main Bear Gulch system for several years and has been served by Cal Water since this time.

The distribution systems consist of 57 pressure zones, 77 booster pumps, 35 storage tanks and reservoirs, 2,278 hydrants, and 289 miles of main. District water tanks provide storage for slightly more than 11 mg of potable water.

### Water Supply and Demand

Supply by Source	Actual FY 13-14 (ccf)	Actual FY 14-15 (ccf)	Actual FY 15-16 (ccf)	Actual FY 16-17 (ccf)
San Francisco Water	6,259,793	5,077,292	3,864,869	4,118,677
Local Groundwater	0	0	0	0
Surface Water	0	190,342	329,563	388,045
Recycled Water	0	0	0	0
Other	0	0	0	0
<b>Total</b>	<b>6,259,793</b>	<b>5,267,634</b>	<b>4,194,432</b>	<b>4,506,722</b>
<b>mgd equivalent</b>	<b>12.83</b>	<b>10.80</b>	<b>8.60</b>	<b>9.24</b>

### Demand by Sector

Residential	5,213,264	4,547,592	3,363,149	3,683,770
Commercial/Industrial	553,536	514,882	426,018	431,082
Other	166,553	123,349	101,350	118,413
Dedicated Irrigation	9,578	11,584	10,648	10,355
Unaccounted for	316,862	70,287	293,267	263,102
<b>Total</b>	<b>6,259,793</b>	<b>5,267,634</b>	<b>4,194,432</b>	<b>4,506,722</b>
<b>mgd equivalent</b>	<b>12.83</b>	<b>10.80</b>	<b>8.60</b>	<b>9.24</b>

Per Capita Use	Actual FY 13-14 (gpcpd)	Actual FY 14-15 (gpcpd)	Actual FY 15-16 (gpcpd)	Actual FY 16-17 (gpcpd)
Residential	183	156	115	108
Gross	220	180	144	132

## Facilities and Distribution

### Storage Reservoirs

Designation	Type	Capacity (gallons)	Designation	Type	Capacity (gallons)
Bear Gulch Reservoir*	Earth	215,000,000	Sta. 028-Tank 1	Steel	200,000
Sta. 002-Tank 1	Steel	250,000	Sta. 029-Tank 1	Fiberglass -Lined Redwood	100,000
Sta. 002-Tank 2	Steel	500,000	Sta. 029-Tank 2	Fiberglass -Lined Redwood	100,000
Sta. 005-Tank 6	Fiberglass -Lined Redwood	100,000 (inactive)	Sta. 029-Tank 3	Steel	150,000
Sta. 005-Tank 8	Steel	250,000	Sta. 030-Tank 1	Steel	1,000,000
Sta. 005-Tank 9	Steel	1,000,000	Sta. 031-Tank 2	Steel	165,000
Sta. 006-Tank 1	Steel	200,000	Sta. 032-Tank 1	Steel	250,000
Sta. 007-Tank 5	Fiberglass -Lined Redwood	100,000	Sta. 033-Tank 1	Steel	10,000
Sta. 015-Tank 1	Fiberglass -Lined Redwood	30,000	Sta. 034-Tank 1	Concrete	50,000
Sta. 016-Res.1	Steel	1,000,000	Sta. 036-Tank 1	Steel	125,000
Sta. 017-Tank 1	Steel	250,000	Sta. 037-Tank 1	Steel	55,000
Sta. 019-Tank 1	Steel	500,000	Sta. 038-Tank 1	Steel	212,000
Sta. 019-Tank 2	Steel	500,000	Sta. 039-Tank 1	Steel	282,000
Sta. 021-Tank 1	Steel	1,000,000	Sta. 041-Tank 1	Steel	189,000
Sta. 021-Tank 2	Steel	1,000,000	Sta. 041-Tank 2	Steel	192,000
Sta. 022-Tank 1	Steel	450,000	Sta. 042-Tank 1	Steel	60,000
Sta. 025-Tank 1	Fiberglass -Lined Redwood	100,000	Sta. 042-Tank 2	Steel	60,000
Sta. 027-Tank 4	Steel	750,000			
<b>Total</b>					226,192,000

\* Reservoir storage capacity has been reduced by 6 feet in compliance with DSOD requirements.

### Surface Water Treatment Facilities

Designation	Capacity (mgd)
Station 2 Filter Plant	6

### Interties

Name	No.	Diameter (in.)
Redwood City	2	6
Menlo Park	3	6

## California Water Service - Mid-Peninsula District

341 North Delaware Street  
 San Mateo, California 94401-1727  
 Phone: (650) 558-7800 Fax: (650) 342-6865  
 Web: <http://www.calwater.com>

### Service Area

California Water Service's Mid-Peninsula District is located in central San Mateo County and serves the communities of San Carlos, San Mateo, parts of unincorporated Redwood City, and adjacent unincorporated portions of San Mateo County, including The Highlands and Palomar Park.

### System

#### Profile

Area Size	17 square miles
Service Population	135,455
Number of Accounts	35,788
Number of SF RWS Connections	6
Connections To SF RWS Mains	Bay Crossing 1 and 2, BDPL 1 and 2, Crystal Springs #2, Sunset Pipeline
Avg. Day Demand (mgd)	11.35
Avg. Day Purchases From SF RWS (mgd)	11.35
% Demand Met With SF RWS Supplies	100%
Maximum Local Water Production (mgd)	0
Alternative Supply Sources	None
Interties With Other Agencies	Mid-Peninsula WD, Redwood City, Belmont, Burlingame, Hillsborough, and Estero MID
Local Storage (mg)	19.9
Days of Storage	1.44 - All zones can meet the 8 hr criteria either separately or by pumping from zones with excess capacity.

### Summary

The Mid-Peninsula District receives all of its water from the SF RWS. Water is delivered to the San Carlos area via 3 SF RWS turnouts located off BDPL 1 and 2. San Mateo is supplied from 5 turnouts located off the Crystal Springs Pipeline #2 and Sunset Supply Lines. The distribution system includes 22 pressure zones in San Carlos, 18 in San Mateo, 62 booster pumps, 38 storage tanks, 2,832 hydrants, and 363 miles of main.

**Water Supply and Demand**

<b>Supply by Source</b>	<b>Actual FY 13-14 (ccf)</b>	<b>Actual FY 14-15 (ccf)</b>	<b>Actual FY 15-16 (ccf)</b>	<b>Actual FY 16-17 (ccf)</b>
San Francisco Water	6,956,723	6,016,058	5,325,284	5,539,001
Local Groundwater	0	0	0	0
Surface Water	0	0	0	0
Recycled Water	0	0	0	0
Other	0	0	0	0
<b>Total</b>	<b>6,956,723</b>	<b>6,016,058</b>	<b>5,325,284</b>	<b>5,539,001</b>
<b>mgd equivalent</b>	<b>14.26</b>	<b>12.33</b>	<b>10.91</b>	<b>11.35</b>

**Demand by Sector**

Residential	4,843,897	4,153,923	3,523,247	3,693,419
Commercial/Industrial	1,295,186	1,195,269	1,080,215	1,069,940
Other	442,095	374,940	324,881	355,830
Unaccounted for	375,545	291,926	396,941	419,812
<b>Total</b>	<b>6,956,723</b>	<b>6,016,058</b>	<b>5,325,284</b>	<b>5,539,001</b>
<b>mgd equivalent</b>	<b>14.26</b>	<b>12.33</b>	<b>10.91</b>	<b>11.35</b>

<b>Per Capita Use</b>	<b>Actual FY 13-14 (gpcpd)</b>	<b>Actual FY 14-15 (gpcpd)</b>	<b>Actual FY 15-16 (gpcpd)</b>	<b>Actual FY 16-17 (gpcpd)</b>
Residential	77	64	54	56
Gross	110	92	82	84

**Facilities and Distribution****Storage Reservoirs**

<b>Designation</b>	<b>Type</b>	<b>Capacity (gallons)</b>	<b>Designation</b>	<b>Type</b>	<b>Capacity (gallons)</b>
San Mateo			San Mateo		
Sta. 006-Res. 1	Brick	2,290,000	Sta. 027-Tank 1	Steel	2,500,000
Sta. 017-Tank 1	Steel	500,000	Sta. 027-Tank 2	Steel	2,500,000
Sta. 017-Tank 2	Steel	500,000	Sta. 029-Tank 1	Steel	1,000,000
Sta. 017-Tank 3	Steel	500,000	Sta. 030-Tank 1	Steel	500,000
Sta. 023-Tank 1	Steel	1,000,000	Sta. 031-Tank 1	Steel	216,000
Sta. 024-Tank 1	Steel	500,000	Sta. 032-Tank 1	Steel	250,000
Sta. 024-Tank 2	Steel	500,000	Sta. 032-Tank 2	Steel	500,000
Sta. 025-Tank 1	Fiberglass- Lined Redwood	100,000	Sta. 033-Tank 1	Steel	300,000

Designation	Type	Capacity (gallons)
Sta. 025-Tank 2	Steel	250,000
Sta. 025-Tank 3	Steel	250,000

1

**Storage Reservoirs**

Designation	Type	Capacity (gallons)
San Carlos		
Sta. 103-Tank 1	Concrete	0
Sta. 106-Tank 2	Steel	0
Sta. 106-Tank 3	Steel	500,000
Sta. 109-Tank 1	Concrete	50,000
Sta. 109-Tank 2	Steel	250,000
Sta. 112-Tank 1	Steel	200,000
Sta. 112-Tank 2	Steel	500,000
Sta. 112-Tank 3	Steel	700,000
Sta. 115-Tank 1	Steel	250,000
Sta. 116-Tank 2	Fiberglass-Lined Redwood	100,000
Sta. 116-Tank 3	Fiberglass-Lined Redwood	100,000

Designation	Type	Capacity (gallons)
Sta. 033-Tank 2	Steel	500,000

**San Mateo Total**

14,656,000

Designation	Type	Capacity (gallons)
San Carlos		
Sta. 118-Tank 1	Steel	200,000
Sta. 118-Tank 2	Steel	750,000
Sta. 119-Tank 1	Steel	400,000
Sta. 120-Tank 1	Steel	500,000
Sta. 122-Tank 1	Fiberglass-Lined Redwood	0
Sta. 122-Tank 2	Fiberglass-Lined Redwood	0
Sta. 123-Tank 3	Steel	250,000
Sta. 123-Tank 4	Steel	425,000
Sta. 124-Tank 1	Steel	78,000
Sta. 125-Tank 1	Fiberglass-Lined Redwood	50,000

**San Carlos Total**

5,303,000

**San Mateo and San Carlos Total**

19,959,000

**Interties**

Name	No.	Diameter (in.)
San Carlos		
Redwood City	3	8, 8, 12
Mid-Peninsula WD	3	8, 8, 8

Name	No.	Diameter (in.)
San Mateo		
Burlingame	3	4, 4, 6
Hillsborough WD	2	6, 6, 6
Mid-Peninsula WD	2	6, 6, 6
Estero MID	1	12

## California Water Service - South San Francisco District

341 North Delaware Street

San Mateo, California 94401-1727

Phone: (650) 588-7800 Fax: (650) 588-1341

Web: <http://www.calwater.com>

### Service Area

The South San Francisco District, located in north San Mateo County, serves South San Francisco, Colma, a small portion of Daly City, and Broadmoor, an unincorporated area located between Colma and Daly City.

### System

#### Profile

Area Size	11.2 square miles
Service Population	61,769
Number of Accounts	16,339
Number of SF RWS Connections	11
Connections To SF RWS Mains	Crystal Springs #2, San Andreas 1, 2, and 3, Sunset Pipeline
Avg. Day Demand (mgd)	5.87
Avg. Day Purchases From SF RWS (mgd)	4.91
% Demand Met With SF RWS Supplies	77%
Maximum Local Water Production (mgd)	1.37
Alternative Supply Sources	Ground Water Wells
Interties With Other Agencies	Brisbane, San Bruno, Daly City, San Francisco
Local Storage (mg)	8.125
Days of Storage	1.08 - Length of storage based on loss of all sources of supply. All zones can meet the 8 hr criteria either separately or by pumping from zones with excess capacity. Could increase well output in an emergency to meet partial demand.

### Summary

The South San Francisco District normally receives over 80% of its water from the SF RWS from 11 turnouts off the San Andreas and Crystal Spring pipelines, with the remaining water pumped from 8 local district wells. Cal Water had been participating in a Conjunctive Use Pilot Program during which the South San Francisco District had received 100% of its supply from the SF RWS.

However, in 2007 Cal Water began operating its well again. The distribution system includes 15 pressure zones, 8 wells, 25 booster pumps, 14 storage reservoirs, 1,436 hydrants, and 160 miles of main.

**Water Supply and Demand**

<b>Supply by Source</b>	<b>Actual FY 13-14 (ccf)</b>	<b>Actual FY 14-15 (ccf)</b>	<b>Actual FY 15-16 (ccf)</b>	<b>Actual FY 16-17 (ccf)</b>
SF RWS - Customary	3,144,748	2,745,921	2,394,025	2,193,604
SF RWS - Supplemental	0		38,981	668,470
Local Groundwater	471,510	524,745	511,717	0
Surface Water	0	0	0	0
Recycled Water	0	0	0	0
Other	0	0	0	0
<b>Total</b>	<b>3,616,258</b>	<b>3,270,666</b>	<b>2,944,723</b>	<b>2,862,074</b>
<b>mgd equivalent</b>	<b>7.41</b>	<b>6.70</b>	<b>6.03</b>	<b>5.87</b>

**Demand by Sector**

Residential	1,432,239	1,271,240	1,157,906	1,182,800
Commercial/Industrial	1,912,861	1,784,482	1,627,433	1,555,853
Other	178,111	131,918	92,474	92,621
Unaccounted for	93,047	83,026	66,910	30,800
<b>Total</b>	<b>3,616,258</b>	<b>3,270,666</b>	<b>2,944,723</b>	<b>2,862,074</b>
<b>mgd equivalent</b>	<b>7.41</b>	<b>6.70</b>	<b>6.03</b>	<b>5.87</b>

<b>Per Capita Use</b>	<b>Actual FY 13-14 (gpcpd)</b>	<b>Actual FY 14-15 (gpcpd)</b>	<b>Actual FY 15-16 (gpcpd)</b>	<b>Actual FY 16-17 (gpcpd)</b>
Residential	49	43	39	39
Gross	123	109	99	95

**Facilities and Distribution****Storage Reservoirs**

<b>Designation</b>	<b>Type</b>	<b>Capacity (gallons)</b>	<b>Designation</b>	<b>Type</b>	<b>Capacity (gallons)</b>
Sta. 001-Tank 1	Steel	500,000	Sta. 013-Res.10, Tank 1	Steel	500,000
Sta. 001-Tank 2	Steel	75,000	Sta. 011-Res. 7, Tank 1	Steel	250,000
Sta. 005-Res. 2	Concrete	1,500,000	Sta. 011-Res. 7, Tank 2	Steel	500,000
Sta. 008-Res. 1	Concrete	1,500,000	Sta. 012-Res. 9, Tank 1	Steel	500,000
Sta. 004-Res. 4, Tank 3	Steel	250,000	Sta. 014-Res. 11, Tank 1	Steel	1,000,000
Sta. 004-Res. 4, Tank 4	Steel	250,000	Sta. 015-Res. 12, Tank 1	Steel	1,000,000
Sta. 009-Tank 3	Redwood	50,000	Sta. 101-Tank 1	Steel	250,000
<b>Total</b>					<b>8,125,000</b>

**Wells**

<b>Name</b>	<b>Capacity (gpm)</b>	<b>Status*</b>
Well 02	60	Inactive
Well 14	90	Inactive
Well 15	95	Active
Well 17	200	Inactive
Well 18	340	Inactive
Well 19	160	Active
Well 20	150	Active
Well 21	220	Active
Well 22	295	Active
Well 23	300	Active
<b>Total</b>	1,220	(Active wells only)

**Interties**

<b>Name</b>	<b>No.</b>	<b>Diameter (in.)</b>
Brisbane	1	16
San Bruno	1	6
Daly City	5	2, 4, 4, 8, 10

## Coastside County Water District

766 Main Street

Half Moon Bay, California 94019-1995

Phone: (650) 726-4405 Fax: (650) 726-5245

Web: <http://www.coastsidewater.org>

### Service Area

Coastside County Water District provides water to the City of Half Moon Bay and several unincorporated coastal communities in San Mateo County, including El Granada, Miramar, and Princeton by the Sea (Pillar Point Harbor).

### System

#### Profile

Area Size	14 square miles
Service Population	16,704
Number of Accounts	7,434
Number of SF RWS Connections	2
Connections To SF RWS Mains	Crystal Springs Intake and Stone Dam (Pilarcitos Lake)
Avg. Day Demand (mgd)	1.67
Avg. Day Purchases From SF RWS (mgd)	1.18
% Demand Met With SF RWS Supplies	71%
Maximum Local Water Production (mgd)	0.5
Alternative Supply Sources	During a drought, local production is extremely low due to dependency on surface stream flows and a small watershed.
Interties With Other Agencies	None
Local Storage (mg)	8.0
Days of Storage	Approximately 3.0 days

#### Summary

Coastside County Water District has four water sources: Pilarcitos Lake, Crystal Springs Reservoir, Pilarcitos Well Field, and the Denniston (well and surface water) Project. Water purchased from the SF RWS is supplied from two different sources: Pilarcitos Lake and Upper Crystal Springs Reservoir.

The Crystal Springs Water Supply Project, completed in 1994, consists of an intake tunnel under the reservoir, a pump station, and an eight-mile pipeline terminating at the Nunes Water Treatment Plant. Water is taken from Upper Crystal Springs Reservoir, when not available from Pilarcitos Lake or demand is greater than Pilarcitos Lake can supply. Deliveries taken from Upper Crystal Springs Reservoir and Pilarcitos Lake are limited by the capacity of the Nunes Treatment Plant, in addition to the design and capacity of the conveyance system.

The District maintains a distribution system that includes 7 pressure zones, 6 pump stations, 2 water treatment plants, 11 treated storage tanks, 637 hydrants, 10 miles of transmission (supply) pipeline, and 80 miles of distribution pipeline.

**Water Supply and Demand**

<b>Supply by Source</b>	<b>Actual FY 13-14 (ccf)</b>	<b>Actual FY 14-15 (ccf)</b>	<b>Actual FY 15-16 (ccf)</b>	<b>Actual FY 16-17 (ccf)</b>
San Francisco Water	940,214	940,214	575,225	515,655
Local Groundwater	2,674	2,674	2,006	10,227
Surface Water	54,372	54,372	240,108	286,685
Recycled Water	0	0	0	0
<b>Total</b>	<b>997,260</b>	<b>997,260</b>	<b>817,339</b>	<b>812,567</b>
<b>mgd equivalent</b>	<b>2.04</b>	<b>2.04</b>	<b>1.67</b>	<b>1.67</b>

**Demand by Sector**

Residential	552,572	552,572	423,998	427,958
Commercial/Industrial	136,934	136,934	123,773	44,685
Other	110,274	110,274	95,609	90,426
Dedicated Irrigation	122,219	122,219	101,460	175,193
Non-Revenue Water	75,260	75,260	72,499	74,305
<b>Total</b>	<b>997,259</b>	<b>997,259</b>	<b>817,339</b>	<b>812,567</b>
<b>mgd equivalent</b>	<b>2.04</b>	<b>2.04</b>	<b>1.67</b>	<b>1.67</b>

<b>Per Capita Use</b>	<b>Actual FY 13-14 (gpcpd)</b>	<b>Actual FY 14-15 (gpcpd)</b>	<b>Actual FY 15-16 (gpcpd)</b>	<b>Actual FY 16-17 (gpcpd)</b>
Residential	68	68	52	53
Gross	123	123	100	100

**Facilities and Distribution****Treated Water Storage Reservoirs**

<b>Designation</b>	<b>Type</b>	<b>Capacity (mg)</b>
Denniston	Steel	1.50
El Granada 1	Steel	0.20
El Granada 2	Steel	0.15
El Granada 3	Steel	0.25
Miramar	Steel	1.00
Carter Hill	Steel	0.40
Carter Hill	Steel	0.60
Carter Hill	Steel	1.50
Miramontes	Steel	0.40
Alves	Steel	2.00
Hazen's	Redwood	0.05
<b>Total</b>		<b>8.05</b>

**Surface Water Treatment Facilities**

<b>Designation</b>	<b>Capacity (mgd)</b>
Nunes WTP	4.5
Denniston WTP	1.0
<b>Total</b>	<b>5.5</b>

**Wells**

<b>Name</b>	<b>Capacity (gpm)*</b>	<b>Status</b>
D1	25	Active
D2		Standby
D3	37	Active
D4	35	Active
D5	35	Active
D9	45	Active
P1	40	November 1 - March 31
P2		Standby
P3		Standby
P3A		Standby
P4	100	November 1 - March 31 Standby
P4A	200	November 1 - March 31
P5	65	November 1 - March 31
<b>Total</b>	<b>582</b>	

\*Capacity is dependent on stream flows

## City of Daly City

Department of Water and Wastewater Resources  
 153 Lake Merced Boulevard  
 Daly City, California 94015-1097  
 Phone: (650) 991-8200 Fax: (650) 991-8220  
 Website: <http://www.dalycity.org/>

### Service Area

The City of Daly City Department of Water and Wastewater serves the City of Daly City and some unincorporated portions of San Mateo County.

### System

#### Profile

Area Size	7.4 square miles
Service Population	109,139
Number of Accounts	23,050
Number of SF RWS Connections	11
Connections To SF RWS Mains	Crystal Springs #1 and #2, San Andreas #2, and the Sunset Pipeline
Avg. Day Demand (mgd)	6.49
Avg. Day Purchases From SF RWS (mgd)	3.83
% Demand Met With SF RWS Supplies	59%
Maximum Local Water Production (mgd)	3.43
Alternative Supply Sources	Local Groundwater, Recycled Water
Interties With Other Agencies	GVMD, Brisbane, Cal Water, North Coast CWD, and Westborough CWD
Local Storage (mg)	24.58
Days of Storage	3.37 – Length of storage based on loss of all sources of supply. Can meet the 8 hr criteria either separately or by pumping from zones with excess capacity. Well water, normally used as a supplemental supply, could meet partial demands in an emergency.

#### Summary

The City of Daly City is supplied by two sources of water: surface water from the SF RWS regional water system, local groundwater from five municipal wells in active operation, and a third source, recycled water produced by the North San Mateo County Sanitation District, a subsidiary of the City of Daly City, that provides turf irrigation to three local golf courses, an athletic field and landscape medians.

Daly City is connected to the SF RWS with eleven turnouts off the Crystal Springs #1 and #2, San Andreas #2 and Sunset Pipelines. Additionally, Daly City has emergency intertie supply connections with Guadalupe Valley Municipal Improvement District, Brisbane Water, California Water Service, North Coast County Water District and Westborough County Water District.

Blending of the SF RWS supply and local groundwater is required because a small portion of the well water exceeds the nitrate MCL. Blending the two supply sources reduces the overall nitrate concentration below the MCL while the well water acts as a buffer for corrosion control.

Daly City entered into a pilot conjunctive use aquifer recharge program in October 2002 with the SFPUC to promote the goal of enhancing regional water resource management. Daly City agreed to accept an increased amount of surplus SF RWS system water at a reduced rate and not pump groundwater from the Westside Basin. This action provided the opportunity to observe the response of the basin from recharge that takes place as a result of the reduction in groundwater pumping.

The Phase One demonstration project continued until November 2003 and assessed the feasibility of a proposed program to increase groundwater levels in the Westside Basin, reduce the potential for seawater intrusion, develop increased SF RWS system yield from the overall surface and groundwater system, and potentially improve conditions at Lake Merced. Initial results from the project showed that groundwater levels increased within the basin. The second phase of the aquifer recharge study began in March 2004 and continued until May 2007. A third phase began May 15, 2009 and ended in March 2011. Currently Daly City and the SFPUC are developing an agreement to implement a long term conjunctive use program based on the analysis of the pilot program.

The City's distribution system includes 12 storage reservoirs, one of which is owned by a private entity, with a combined capacity of 24.58 million gallons that could, in an emergency, supply the annual average daily demand for just over 3.37 days. All reservoirs contain a mixture of SF RWS and groundwater, with the exception of Reservoirs #8 and #5 which are supplied solely by SF RWS connections. During this fiscal year, a two million gallon storage tank was constructed in the Bayshore Area to replace an undersized reservoir to enhance fire flows to the area. The system also contains 18 pumping stations, 23 pressure zones, 2 regulating control valves, 41 pressure-reducing valves, 21 pressure relief valves, 185 miles of main and 1,468 fire hydrants.

Daly City's Tertiary Recycled Water Facility (through its subsidiary, the North San Mateo County Sanitation District) began delivering full Title 22 compliant public contact irrigation water in August 2004 to the Olympic Club. Soon after, water deliveries included the Lake Merced Golf Club and Daly City's Westlake Park. During the 2005 irrigation season, deliveries included the San Francisco Golf Club. A study was conducted to examine the feasibility of adding service to Harding Park Golf Course. The study indicated the project was feasible, and construction is currently underway and is anticipated to be complete by the fall of 2012.

Since its initiation, some 2,386,590 ccf have been delivered for irrigation use, lessening the demand on local groundwater, and to a small degree, offsetting SF RWS system water with the conversion of potable water to recycled water at Harding Park.

**Water Supply and Demand**

<b>Supply by Source</b>	<b>Actual FY 13-14 (ccf)</b>	<b>Actual FY 14-15 (ccf)</b>	<b>Actual FY 15-16 (ccf)</b>	<b>Actual FY 16-17 (ccf)</b>
San Francisco Water	1,713,514	1,654,762	2,152,800	1,867,312
SF RWS Supplemental Water	0	0	146,803	1,041,345
Local Groundwater	1,494,788	1,231,086	750,309	0
Recycled Water	141,131	9,203	91,882	259,062
<b>Total</b>	<b>3,349,433</b>	<b>2,895,051</b>	<b>3,141,794</b>	<b>3,167,719</b>
<b>mgd equivalent</b>	<b>6.86</b>	<b>5.93</b>	<b>6.44</b>	<b>6.49</b>

Recycled water reflected in this table shows the amount of recycled water that offsets SF RWS water.

**Demand by Sector**

Residential	2,401,406	2,229,036	2,129,965	2,170,365
Commercial/Industrial	381,955	381,225	414,229	403,779
Other	123,297	148,036	107,583	69,008
Dedicated Irrigation	238,144	76,081	49,839	294,993
Unaccounted for	204,631	60,673	440,178	229,574
<b>Total</b>	<b>3,346,447</b>	<b>2,895,051</b>	<b>3,141,794</b>	<b>3,167,719</b>
<b>mgd equivalent</b>	<b>6.86</b>	<b>5.93</b>	<b>6.44</b>	<b>6.49</b>

<b>Per Capita Use</b>	<b>Actual FY 13-14 (gpcpd)</b>	<b>Actual FY 14-15 (gpcpd)</b>	<b>Actual FY 15-16 (gpcpd)</b>	<b>Actual FY 16-17 (gpcpd)</b>
Residential	47	42	40	41
Gross (Less Recycled Water)	63	55	57	55

**Facilities and Distribution****Storage Reservoirs**

<b>Designation</b>	<b>Type</b>	<b>Capacity (gallons)</b>	<b>Designation</b>	<b>Type</b>	<b>Capacity (gallons)</b>
Reservoir 1	Concrete	703,000	Reservoir 5B	Concrete	10,400,000
Reservoir 2	Concrete	2,303,000	Reservoir 6	Concrete	1,495,000
Reservoir 2B	Concrete	2,000,000	Reservoir 6B	Concrete	1,451,000
Reservoir 3	Concrete	978,000	Reservoir 7	Steel	1,487,000
Reservoir 4	Concrete	1,370,000	Reservoir 8	Steel	630,000
Reservoir 5	Concrete	1,481,000	F Bay (Private)	Steel	285,000
			<b>Total</b>		<b>24,583,000</b>

**Wells**

<b>Name</b>	<b>Capacity (gpm)</b>	<b>Status</b>
Westlake	410	Active
Well 4	426	Active
Jeff Well	340	Active
Vale	693	Active
A St.	524	Inactive
JS Well	550	Active
<b>Total</b>	<b>2,943</b>	

**Interties**

<b>Name</b>	<b>No.</b>	<b>Diameter (in.)</b>
GVMID	1	12
Brisbane	2	8, 8
CWS	5	2, 4, 4, 8, 10
North Coast	2	6, 8
Westborough	1	12

## City of East Palo Alto

2415 University Ave.

East Palo Alto, CA 94303

Web: <http://www.ci.east-palo-alto.ca.us>

American Water Enterprises

2415 University Avenue, 2nd Floor

East Palo Alto, CA 94303

Phone: (650) 322-2083 Fax: (650) 325-5038

### Service Area

Located in southeast San Mateo County, the City of East Palo Alto is a residential community with some commercial and industrial development.

### System

#### Profile

Area Size	2.5 square miles
Service Population	26,181
Number of Accounts	3,930
Number of SF RWS Connections	3
Connections To SF RWS Mains	BDPL 1 and 2
Avg. Day Demand (mgd)	1.51
Avg. Day Purchases From SF RWS (mgd)	1.42
% Demand Met With SF RWS Supplies	100%
Maximum Local Water Production (mgd)	0
Alternative Supply Sources	None
Interties With Other Agencies	Palo Alto, Menlo Park, O'Connor Tract Water Coop, Palo Alto Park Mutual - only to 2 Mutual companies and not in EPA's direction
Local Storage (mg)	0
Days of Storage	0 – No storage: cannot sustain a loss of water independent of its interties. 3.6 mg of storage identified but approval/funding has yet to be secured.

#### Summary

The City of East Palo Alto receives all of its potable water supply from three SF RWS turnouts off BDPL 1 and 2. The third 72" pipe line is also in place, but not hooked up. All three turnouts are located in the northern portion of the district, and water is distributed directly to all of the customers within the district's one pressure zone. The City's water utility is operated and managed by a private contractor, American Water Enterprises. East Palo Alto sells a small amount of (SF RWS-supplied) water to Menlo Park under an existing agreement. Recently, Menlo Park is isolating its Distribution lines from that of East Palo Alto by cutting off and capping lines from the existing system.

There are no storage facilities or alternate potable water supply sources within the City. The City has one emergency well currently not certified for potable use.

**Water Supply and Demand**

<b>Supply by Source</b>	<b>Actual FY 13-14 (ccf)</b>	<b>Actual FY 14-15 (ccf)</b>	<b>Actual FY 15-16 (ccf)</b>	<b>Actual FY 16-17 (ccf)</b>
San Francisco Water	723,320	768,310	690,728	734,911
Resale SF RWS (Menlo Park)	-4,280	-2,536	0	0
Local Groundwater	1,000	0	0	0
Recycled Water	0	0	0	0
Other	0	607	0	0
<b>Total</b>	<b>720,040</b>	<b>768,916</b>	<b>690,728</b>	<b>734,911</b>
<b>mgd equivalent</b>	<b>1.48</b>	<b>1.58</b>	<b>1.42</b>	<b>1.51</b>

**Demand by Sector**

Residential	645,589	514,992	615,001	523,703
Commercial/Industrial	141,482	277,171	67,549	125,874
Other	24,366	31,276	58	12,304
Unaccounted for	-91,397	-54,523	8,120	73,030
<b>Total</b>	<b>811,437</b>	<b>768,916</b>	<b>690,728</b>	<b>734,911</b>
<b>mgd equivalent</b>	<b>1.48</b>	<b>1.58</b>	<b>1.42</b>	<b>1.51</b>

<b>Per Capita Use</b>	<b>Actual FY 13-14 (gpcpd)</b>	<b>Actual FY 14-15 (gpcpd)</b>	<b>Actual FY 15-16 (gpcpd)</b>	<b>Actual FY 16-17 (gpcpd)</b>
Residential	51	36	52	41
Gross	57	54	58	58

**Facilities and Distribution****Wells**

<b>Name</b>	<b>Capacity (gpm)</b>	<b>Status</b>
EPACWD Well	0.2	Standby
<b>Total</b>	<b>0.2</b>	

**Interties**

<b>Name</b>	<b>No.</b>	<b>Diameter (in.)</b>
Palo Alto	1	6
O'Connor	1	6
Menlo Park	> 1	6

## Estero Municipal Improvement District

610 Foster City Boulevard

Foster City, California 94404-2299

Phone (650) 286-3270 Fax (650) 345-4626

Web: <http://www.fostercity.org/Services/water/index.cfm>

### Service Area

Estero Municipal Improvement District is located in central San Mateo County immediately adjacent to the Bay, and serves the City of Foster City and a part of the City of San Mateo, an area predominantly residential with a broad cross-section of commercial and light industrial development.

### System

#### Profile

Area Size	4 square miles
Service Population	37,518
Number of Accounts	8,164
Number of SF RWS Connections	1
Connections To SF RWS Mains	Crystal Springs #2
Avg. Day Demand (mgd)	3.84
Avg. Day Purchases From SF RWS (mgd)	3.62
% Demand Met With SF RWS Supplies	100%
Maximum Local Water Production (mgd)	0
Alternative Supply Sources	None
Interties With Other Agencies	CWS - San Mateo, Mid-Peninsula Water District
Local Storage (mg)	20
Days of Storage	2.0 - EMID can meet the 8 hr. criteria on maximum day

#### Summary

Estero Municipal Improvement District's sole source of supply is SF RWS through a turnout located on Crystal Springs Road in the City of San Mateo. Water from the turnout fills storage tanks located in the northwest corner of the district.

The distribution system consists of 2 water pressure reducing stations, 4 storage tanks, 1 pump station, and 1 pressure zone.

EMID has connections in the southern half of the district to CWS - San Mateo and the Mid-Peninsula Water District for emergency water supply.

**Water Supply and Demand**

<b>Supply by Source</b>	<b>Actual FY 13-14 (ccf)</b>	<b>Actual FY 14-15 (ccf)</b>	<b>Actual FY 15-16 (ccf)</b>	<b>Actual FY 16-17 (ccf)</b>
San Francisco Water	1,942,333	1,930,526	1,768,029	1,874,751
Local Groundwater	0	0	0	0
Surface Water	0	0	0	0
Recycled Water	0	0	0	0
Other	0	0	0	0
<b>Total</b>	<b>1,942,333</b>	<b>1,930,526</b>	<b>1,768,029</b>	<b>1,874,751</b>
<b>mgd equivalent</b>	<b>3.98</b>	<b>3.96</b>	<b>3.62</b>	<b>3.84</b>

**Demand by Sector**

Residential	1,306,850	1,158,140	1,007,662	1,045,227
Commercial/Industrial	238,343	225,280	217,524	213,328
Other	56,839	35,024	27,954	27,720
Dedicated Irrigation	545,676	469,617	351,772	381,425
Unaccounted for	-205,375	42,465	163,117	207,051
<b>Total</b>	<b>1,942,333</b>	<b>1,930,526</b>	<b>1,768,029</b>	<b>1,874,751</b>
<b>mgd equivalent</b>	<b>3.98</b>	<b>3.96</b>	<b>3.62</b>	<b>3.84</b>

<b>Per Capita Use</b>	<b>Actual FY 13-14 (gpcpd)</b>	<b>Actual FY 14-15 (gpcpd)</b>	<b>Actual FY 15-16 (gpcpd)</b>	<b>Actual FY 16-17 (gpcpd)</b>
Residential	72	64	56	57
Gross	108	107	97	102

**Facilities and Distribution****Storage Reservoirs**

<b>Designation</b>	<b>Type</b>	<b>Capacity (mg)</b>
Storage Tank 1	Steel	4
Storage Tank 2	Steel	4
Storage Tank 3	Steel	4
Storage Tank 4	Conc.	8
<b>Total</b>		<b>20</b>

**Interties**

<b>Name</b>	<b>No.</b>	<b>Diameter (in.)</b>
CWS - San Mateo	1	12
Mid-Peninsula	1	12

## City of Hayward

Utilities & Environmental Services Department  
 777 B Street  
 Hayward, California 94541  
 Phone: (510) 583-4700 Fax: (510) 583-3610  
 Web: www.hayward-ca.gov

### Service Area

The City of Hayward is located in south Alameda County on the eastern shore of the San Francisco Bay.

### System

#### Profile

Area Size	62.5 square miles
Service Population	158,985
Number of Accounts	35,661
Number of SF RWS Connections	4 (two at each turnout)
Connections To SF RWS Mains	BDPL 1 and 2
Avg. Day Demand (mgd)	12.87
Avg. Day Purchases From SF RWS (mgd)	12.87
% Demand Met With SF RWS Supplies	100%
Maximum Local Water Production (mgd)	0
Alternative Supply Sources	Local Groundwater (Emergency Use Only)
Interties With Other Agencies	ACWD, EBMUD
Local Storage (mg)	29.4
Days of Storage	1.7 – All zones can meet the 8 hr criteria either separately or by pumping from zones with excess capacity. Well water could be used in an emergency.

#### Summary

The City of Hayward obtains its entire water supply from the SF RWS at two turnouts, one at the Irvington Portal and one at the Newark valve lot. The distribution system consists of 6 main pressure zones, 14 water storage tanks, and 7 pump stations delivering water to upper pressure zones. The transmission system attached to the Hetch Hetchy aqueduct is complemented by two booster pump stations: the Decoto pump station, located along the Mission Boulevard 24” transmission main, and the Hesperian pump station, located along the Hesperian Boulevard 42” transmission main. Multiple pressure reducing stations interface between the transmission and distribution systems. Five water wells, permitted for short term, emergency use, can be brought online in the event of a transmission system failure.

There is at least one storage tank located within each pressure zone, with pump stations to deliver water to the higher elevation zones. Water is delivered to the 250 pressure zone from SF RWS with sufficient pressure under most conditions. Storage is located in the eastern portion of the City, east of Mission Blvd. The Decoto and/or Hesperian pump stations boost pressure in the 250 zone

when necessary. All five emergency wells are located west of Mission Blvd., as are three of the City's four emergency interties.

**Water Supply and Demand**

Supply by Source	Actual FY 13-14 (ccf)	Actual FY 14-15 (ccf)	Actual FY 15-16 (ccf)	Actual FY 16-17 (ccf)
San Francisco Water	7,402,067	6,634,616	5,979,616	6,281,522
Local Groundwater	0	0	0	0
Recycled Water	0	0	0	0
<b>Total</b>	<b>7,402,067</b>	<b>6,634,616</b>	<b>5,979,616</b>	<b>6,281,522</b>
<b>mgd equivalent</b>	<b>15.17</b>	<b>13.60</b>	<b>12.25</b>	<b>12.87</b>

**Demand by Sector**

Residential	4,157,114	3,609,950	3,372,168	3,486,839
Commercial/Industrial	1,630,978	1,452,978	1,371,311	1,291,502
Other	383,686	306,320	277,018	305,097
Dedicated Irrigation	1,012,601	744,222	556,161	540,224
Unaccounted for	217,688	521,146	402,958	657,860
<b>Total</b>	<b>7,402,067</b>	<b>6,634,616</b>	<b>5,979,616</b>	<b>6,281,522</b>
<b>mgd equivalent</b>	<b>15.17</b>	<b>13.60</b>	<b>12.25</b>	<b>12.87</b>

Per Capita Use	Actual FY 13-14 (gpcpd)	Actual FY 14-15 (gpcpd)	Actual FY 15-16 (gpcpd)	Actual FY 16-17 (gpcpd)
Residential	56	48	43	45
Gross	100	89	77	81

**Facilities and Distribution**

**Storage Reservoirs**

Designation	Type	Capacity (gallons)	Designation	Type	Capacity (gallons)
Treeview	Concrete	3,000,000	250 East	Concrete	500,000
Maitland	Concrete	1,000,000	250 West	Concrete	500,000
North Walpert	Concrete	1,500,000	Highland 500	Concrete	3,000,000
South Walpert	Steel	5,300,000	Highland 750	Steel	4,400,000
D Street	Concrete	1,000,000	Highland 1000	Steel	2,200,000
High School	Concrete	1,000,000	Highland 1285	Steel	1,800,000
Garin Hills	Steel	1,250,000	Highland 1530	Steel	2,900,000
			<b>Total</b>		<b>29,350,000</b>

**Wells**

Name	Capacity (mgd)	Status
Well A	1.7	Standby (Emergency)
Well B*	2.9	Standby (Emergency)

<b>Name</b>	<b>Capacity (mgd)</b>	<b>Status</b>
Well C	4.6	Standby (Emergency)
Well D	1.4	Standby (Emergency)
Well E	3.0	Standby (Emergency)
<b>Total</b>	13.6	

\*Out of service for rehabilitation

**Interties**

<b>Name</b>	<b>No.</b>	<b>Diameter (in.)</b>
EBMUD*	2	10, 12
ACWD	2	12, 12

\*Also capable of hydrant-to-hydrant interconnection with EBMUD for firefighting purposes during emergencies.

## Town of Hillsborough

Water Department  
 1600 Floribunda Avenue  
 Hillsborough, California 94010-6498  
 Phone: (650) 375-7402 Fax: (650) 375-7444  
 Web: <http://www.hillsborough.net/depts/pw/water/default.asp>

### Service Area

The Town of Hillsborough, located in central San Mateo County, is a single family residential community zoned for residential estates. The Town's service area includes the Town of Hillsborough and portions of unincorporated San Mateo County.

### System

#### Profile

Area Size	6.25 square miles
Service Population	10,869
Number of Accounts	4,273
Number of SF RWS Connections	9 Turnouts, 12 meters
Connections To SF RWS Mains	Crystal Springs #2, Sunset Pipeline
Avg. Day Demand (mgd)	2.33
Avg. Day Purchases From SF RWS (mgd)	2.33
% Demand Met With SF RWS Supplies	100%
Maximum Local Water Production (mgd)	0
Alternative Supply Sources	None
Interties With Other Agencies	Burlingame, CWS - San Mateo
Local Storage (mg)	8.29 (max capacity)
Days of Storage	2.2 - All zones can meet the 8 hr criteria either separately or by pumping from zones with excess capacity.

#### Summary

The Town of Hillsborough purchases all of its water from the SF RWS via 12 meters in 9 turnouts located off San Francisco's Sunset and Crystal Springs #2 supply lines, which provide potable water to customers in 5 pressure zones.

The Town owns and operates its own water utility. The distribution system consists of 16 pressure zones, 14 pump stations, 18 storage tanks, and 107 miles of mains.

There are no wells or alternate sources within the district.

**Water Supply and Demand**

<b>Supply by Source</b> <sup>1</sup>	<b>Actual FY 13-14 (ccf)</b>	<b>Actual FY 14-15 (ccf)</b>	<b>Actual FY 15-16 (ccf)</b>	<b>Actual FY 16-17 (ccf)</b>
San Francisco Water	1,599,812	1,226,777	1,050,944	1,139,003
Resale SF RWS (CWS)	0	0	0	0
Local Groundwater	0	0	0	0
Surface Water	0	0	0	0
Recycled Water	0	0	0	0
Other	0	0	0	0
<b>Total</b>	<b>1,599,812</b>	<b>1,226,777</b>	<b>1,050,944</b>	<b>1,139,003</b>
<b>mgd equivalent</b>	<b>3.28</b>	<b>2.51</b>	<b>2.15</b>	<b>2.33</b>

**Demand by Sector** <sup>2</sup>

Residential	1,459,092	1,176,162	883,507	975,463
Commercial/Industrial	0	4,826	5,637	4,567
Institutional/Other	23,485	13,090	10,992	12,364
Dedicated Irrigation	22,319	23,941	17,607	16,965
Unaccounted for	94,916	8,758	133,201	129,644
<b>Total</b>	<b>1,599,812</b>	<b>1,226,777</b>	<b>1,050,944</b>	<b>1,139,003</b>
<b>mgd equivalent</b>	<b>3.28</b>	<b>2.51</b>	<b>2.15</b>	<b>2.33</b>

<b>Per Capita Use</b>	<b>Actual FY 13-14 (gpcpd)</b>	<b>Actual FY 14-15 (gpcpd)</b>	<b>Actual FY 15-16 (gpcpd)</b>	<b>Actual FY 16-17 (gpcpd)</b>
Residential	275	222	167	184
Gross	302	231	198	215

1 SFPUC billing is based on monthly meter readings.

2 Hillsborough retail sales are based on bi-monthly reading of customers' meters.

**Note:** Some minor population and water supply errors were discovered in FYs 08-10, and have not been corrected here. These errors are not significant, and corrected data can be provided by the Town of Hillsborough on request.

**Facilities and Distribution****Storage Reservoirs**

<b>Designation</b>	<b>Type</b>	<b>Capacity (gallons)</b>
Forest View Tank 1	Steel	280,000
Forest View Tank 2	Steel	675,000
Skyfarm II Tank 1	Steel	65,000
Skyfarm II Tank 2	Steel	65,000
Skyfarm III Tank 1	Steel	700,000
Skyfarm III Tank 2	Steel	700,000
Darrell Tank 1	Steel	500,000
Darrell Tank 2	Steel	500,000
Darrell Tank 3	Steel	1,000,000

<b>Designation</b>	<b>Type</b>	<b>Capacity (gallons)</b>
El Arroyo Tank 1	Steel	516,000
El Arroyo Tank 2	Steel	516,000
Major Hayes Tank	Steel	250,000
Vista Tank	Steel	350,000
Marlborough Tank 1	Steel	250,000
Marlborough Tank 2	Steel	350,000
Tournament Tank 1	Steel	600,000
Tournament Tank 2	Steel	600,000
<b>Total</b>		<b>7,917,000</b>

**Interties**

<b>Name</b>	<b>No.</b>	<b>Diameter (in.)</b>
CWS -San Mateo	4	2*, 6, 6, 8
Burlingame	3	6, 8, 10

\*2-inch galvanized steel pipe is considered non-functional as an intertie.

## City of Menlo Park

Menlo Park Municipal Water Department

701 Laurel Street

Menlo Park, California 94025-3483

Phone: (650) 330-6750 E-mail: [water@menlopark.org](mailto:water@menlopark.org)

Web: <http://www.menlopark.org/water>

### Service Area

The City of Menlo Park, a balanced mix of residential, commercial and industrial users, is located in southern San Mateo County.

### System

#### Profile

Area Size	4 square miles
Service Population	16,066
Number of Accounts	4,365
Number of SF RWS Connections	5
Connections To SF RWS Mains	3 connections to BDPL 1 and 2 via Ivy Drive at Hill, Chilco and Madera; 1 connection to BDPL 4 via Sharon Park Drive at Lassen; 1 connection to the Palo Alto Pipeline
Avg. Day Demand (mgd)	2.36
Avg. Day Purchases From SF RWS (mgd)	2.36
% Demand Met With SF RWS Supplies	100%
Maximum Local Water Production (mgd)	0
Alternative Supply Sources	None
Interties With Other Agencies	CWS - Bear Gulch District, Redwood City, East Palo Alto, O'Conner Tract Water Coop, Palo Alto Park Mutual Water Co.
Local Storage (mg)	5.5 mg
Days of Storage	0.65

#### Summary

The City of Menlo Park purchases all of its water directly from the SF RWS, and the remainder from East Palo Alto, whose source is also SF RWS. One SF RWS turnout serves the Sharon Heights area along Sand Hill Road and Highway 280, and four turnouts serve portions of the City north and east of El Camino Real near Highway 101 and Willow Road. The distribution system includes one pump station, two storage reservoirs, and 63 miles of mains.

The two reservoirs supply the Sharon Heights area. No storage exists in the areas supplied north and east of El Camino Real. However, this area has emergency interties with California Water Service (CWS), Redwood City, O'Connor Tract Water Coop, East Palo Alto and Palo Alto Park Mutual Water Co. CWS is the primary emergency source of water for Menlo Park.

**Water Supply and Demand**

<b>Supply by Source</b>	<b>Actual FY 13-14 (ccf)</b>	<b>Actual FY 14-15 (ccf)</b>	<b>Actual FY 15-16 (ccf)</b>	<b>Actual FY 16-17 (ccf)</b>
San Francisco Water	1,724,965	1,287,136	1,074,516	1,153,760
Resale SF RWS Purchase	4,434	0	0	0
Other	0	0	0	0
<b>Total</b>	<b>1,729,399</b>	<b>1,287,136</b>	<b>1,074,516</b>	<b>1,153,760</b>
<b>mgd equivalent</b>	<b>3.54</b>	<b>2.64</b>	<b>2.20</b>	<b>2.36</b>

**Demand by Sector**

Residential	669,505	566,933	469,556	509,673
Commercial/Industrial	605,384	517,551	444,993	541,163
Other	82,272	67,003	55,167	63,640
Dedicated Irrigation	221,816	148,509	1,011	133,276
Unaccounted for	150,422	-12,860	103,789	-93,992
<b>Total</b>	<b>1,729,399</b>	<b>1,287,136</b>	<b>1,074,516</b>	<b>1,153,760</b>
<b>mgd equivalent</b>	<b>3.54</b>	<b>2.64</b>	<b>2.20</b>	<b>2.36</b>

<b>Per Capita Use</b>	<b>Actual FY 13-14 (gpcpd)</b>	<b>Actual FY 14-15 (gpcpd)</b>	<b>Actual FY 15-16 (gpcpd)</b>	<b>Actual FY 16-17 (gpcpd)</b>
Residential	85	76	60	65
Gross	221	172	137	147

**Facilities and Distribution****Storage Reservoirs**

<b>Designation</b>	<b>Type</b>	<b>Capacity (mg)</b>
Reservoir 1	Storage	2.0
Reservoir 2	Storage	3.5
<b>Total</b>		<b>5.5</b>

**Interties**

<b>Name</b>	<b>No.</b>	<b>Diameter (in.)</b>
CWS – Bear Gulch	3	6, 8, 10
East Palo Alto	1	12
O'Conner Tract	1	6
Redwood City	1	6
Palo Alto Park	1	6

## Mid-Peninsula Water District

Three Dairy Lane

Belmont, California 94002-0129

Phone: (650) 591-8941 Fax: (650) 591-4998

Web: <http://www.midpeninsulawater.org>

### Service Area

The Mid-Peninsula Water District, located in central San Mateo County, serves the city of Belmont, portions of San Carlos, and unincorporated county areas. The predominant land use is residential.

### System

#### Profile

Area Size	5 square miles
Service Population	26,924
Number of Accounts	8,053
Number of SF RWS Connections	2
Connections To SF RWS Mains	BDPL 1 and 2, Crystal Springs Bypass Tunnel
Avg. Day Demand (mgd)	2.32
Avg. Day Purchases From SF RWS (mgd)	2.32
% Demand Met With SF RWS Supplies	100.0%
Maximum Local Water Production (mgd)	0
Alternative Supply Sources	None
Interties With Other Agencies	Estero MID, Redwood City, CWS - San Mateo, CWS - San Carlos
Local Storage (mg)	12.5
Days of Storage	3.6 - All zones can meet the 8 hr criteria either separately or by pumping from zones with excess capacity.

#### Summary

The District's sole source of potable water is delivered via two SF RWS turnouts. Local water storage is not feasible, and groundwater of adequate quantity and quality is not available.

The system contains 9 pressure zones. The easternmost zone, east of El Camino Real, is gravity fed from the SF RWS connection. Water is pumped to storage reservoirs at higher elevations to feed the remaining pressure zones. The District operates and maintains a complex distribution system that includes 20 pumps, 11 water tanks, 13 regulating valves, 813 hydrants, and 105 miles of water mains.

The District also has redundancy built into the entire distribution system, enabling either of the two SF RWS transmission mains to supply water to all customers of the District. The District has the ability to transfer water between pressure zones in either a pump-up or flow-down mode in emergency conditions.

**Water Supply and Demand**

<b>Supply by Source</b>	<b>Actual FY 13-14 (ccf)</b>	<b>Actual FY 14-15 (ccf)</b>	<b>Actual FY 15-16 (ccf)</b>	<b>Actual FY 16-17 (ccf)</b>
San Francisco Water	1,408,109	1,209,300	1,076,654	1,134,389
Local Groundwater	0	0	0	0
Surface Water	0	0	0	0
Recycled Water	0	0	0	0
Other	0	0	0	0
<b>Total</b>	<b>1,408,109</b>	<b>1,209,300</b>	<b>1,076,654</b>	<b>1,134,389</b>
<b>mgd equivalent</b>	<b>2.89</b>	<b>2.48</b>	<b>2.21</b>	<b>2.32</b>

**Demand by Sector**

Residential	993,343	834,024	732,057	769,601
Commercial/Industrial	258,172	234,417	219,557	222,735
Other	83,953	71,882	64,982	61,447
Dedicated Irrigation	0	0	0	1,200
Unaccounted for	72,641	68,977	60,058	79,406
<b>Total</b>	<b>1,408,109</b>	<b>1,209,300</b>	<b>1,076,654</b>	<b>1,134,389</b>
<b>mgd equivalent</b>	<b>2.89</b>	<b>2.48</b>	<b>2.21</b>	<b>2.32</b>

<b>Per Capita Use</b>	<b>Actual FY 13-14 (gpcpd)</b>	<b>Actual FY 14-15 (gpcpd)</b>	<b>Actual FY 15-16 (gpcpd)</b>	<b>Actual FY 16-17 (gpcpd)</b>
Residential	77	64	56	59
Gross	110	93	82	86

**Facilities and Distribution****Storage Reservoirs**

<b>Designation</b>	<b>Type</b>	<b>Capacity (mg)</b>	<b>Designation</b>	<b>Type</b>	<b>Capacity (mg)</b>
Storage Tank 1	Steel	2.50	Storage Tank 7	Steel	0.79
Storage Tank 2	Steel	2.50	Storage Tank 8	Steel	0.79
Storage Tank 3	Steel	1.00	Storage Tank 9	Steel	0.10
Storage Tank 4	Steel	1.50	Storage Tank 10	Steel	0.10
Storage Tank 5	Steel	1.00	Storage Tank 11	Steel	1.50
Storage Tank 6	Steel	0.72			
<b>Total</b>					<b>12.50</b>

**Interties**

<b>Name</b>	<b>No.</b>	<b>Diameter (in.)</b>	<b>Name</b>	<b>No.</b>	<b>Diameter (in.)</b>
Estero	1	12	CWS - San Carlos	2	8
Redwood City	1	12	CWS - San Mateo	3	8

## City of Millbrae

Public Works - Engineering  
 621 Magnolia Avenue  
 Millbrae, California 94030

Phone: (650) 259-2339 Fax: (650) 697-8158

Web: <http://www.ci.millbrae.ca.us>

### Service Area

The City of Millbrae is a residential community with a small commercial business sector located in north San Mateo County. Millbrae owns and operates its water utility, with a service area that includes Capuchino High School in San Bruno.

### System

#### Profile

Area Size	3.2 square miles
Service Population	22,848
Number of Accounts	6,555
Number of SF RWS Connections	5
Connections To SF RWS Mains	Murchison, Greenhills, Park, 195 ECR, Helen
Avg. Day Demand (mgd)	1.91
Avg. Day Purchases From SF RWS (mgd)	1.88
% Demand Met With SF RWS Supplies	99%
Maximum Local Water Production (mgd)	0
Alternative Supply Sources	None
Interties With Other Agencies	Burlingame
Local Storage (mg)	2.36
Days of Storage	0.8 – 3 of 4 (Zones 1- 3) zones receive water from Harry Tracy Plant. Meets 8 hr. coverage for City's 3 upper zones. Planned projects will provide interties among zones to provide storage to Zone 4. These projects are pending completion of a Master Plan.

#### Summary

The City of Millbrae's only source of water is the SF RWS, delivered through 5 turnouts. Hetch Hetchy water purchased from the SF RWS meets all drinking water standards and is treated with fluoride.

Four storage tanks near the Harry Tracy WTP are filled early in the morning and are slowly drawn throughout the day to satisfy customer demand. Water filtered by the Harry Tracy Treatment Plant (San Andreas Reservoir) supplies water in the higher elevations, while the Crystal Springs #2 and #3 deliver water to the lower elevations.

The distribution system includes 11 pressure zones, 6 pumps (3 each at 2 stations), 5 storage tanks (only 4 are in operation), 568 hydrants, and 69.7 miles of water mains.

**Water Supply and Demand**

<b>Supply by Source</b>	<b>Actual FY 13-14 (ccf)</b>	<b>Actual FY 14-15 (ccf)</b>	<b>Actual FY 15-16 (ccf)</b>	<b>Actual FY 16-17 (ccf)</b>
San Francisco Water	1,134,741	991,049	899,785	918,695
Local Groundwater	0	0	0	0
Surface Water	0	0	0	0
Recycled Water	12,000	12,000	0	12,000
Other	0	0	0	0
<b>Total</b>	<b>1,146,741</b>	<b>1,003,049</b>	<b>899,785</b>	<b>930,695</b>
<b>mgd equivalent</b>	<b>2.35</b>	<b>2.06</b>	<b>1.84</b>	<b>1.91</b>

**Demand by Sector**

Residential	731,183	627,450	542,393	570,181
Commercial/Industrial	154,759	161,459	162,215	158,303
Other	65,130	71,796	28,293	29,353
Dedicated Irrigation	84,344	72,645	47,125	52,420
Unaccounted for	111,325	69,699	119,759	120,438
<b>Total</b>	<b>1,146,741</b>	<b>1,003,049</b>	<b>899,785</b>	<b>930,695</b>
<b>mgd equivalent</b>	<b>2.35</b>	<b>2.06</b>	<b>1.84</b>	<b>1.91</b>

<b>Per Capita Use</b>	<b>Actual FY 13-14 (gpcpd)</b>	<b>Actual FY 14-15 (gpcpd)</b>	<b>Actual FY 15-16 (gpcpd)</b>	<b>Actual FY 16-17 (gpcpd)</b>
Residential	70	60	49	51
Gross (less recycled water)	108	94	81	82

**Facilities and Distribution****Storage Reservoirs**

<b>Designation</b>	<b>Type</b>	<b>Capacity (mg)</b>
Storage Tank 1	Steel	1.00
Storage Tank 2	Steel	0.50
Storage Tank 3	Steel	0.50
Storage Tank 4	Steel	0.11
Storage Tank 5	Steel	0.25
<b>Total</b>		<b>2.36</b>

**Interties**

<b>Name</b>	<b>No.</b>	<b>Diameter (in.)</b>
Burlingame	8	6, 8, 10, 12

## City of Milpitas

Public Works Department, Engineering Division  
 455 East Calaveras Boulevard  
 Milpitas, California 95035-5411  
 Phone: (408) 586-3300 Fax: (408) 586-3305  
 Web: <http://www.ci.milpitas.ca.gov/>

### Service Area

The City of Milpitas is located in northeastern Santa Clara County.

### System

#### Profile

Area Size	13.6 square miles
Service Population	77,528
Number of Accounts	16,581
Number of SF RWS Connections	4 - Sunnyhills (Washington), Calaveras, Main (Hammond), and Gibraltar Tank (intertie).
Connections To SF RWS Mains	BDPL 3 and 4
Avg. Day Demand (mgd)	8.52
Avg. Day Purchases From SF RWS (mgd)	4.90 4.54
% Demand Met With SF RWS Supplies	57%
Maximum Local Water Production (mgd)	0
Alternative Supply Sources	Santa Clara Valley Water District (SCVWD), South Bay Water Recycling (SBWR), Pinewood Well
Interties With Other Agencies	Alameda County Water District (ACWD), San Jose Water Company (SJWC)
Local Storage (mg)	16.3
Days of Storage	1.4 - All 6 zones can meet the 8 hr criteria, ranging from 9 hours to 31 hours at maximum day.

#### Summary

The City of Milpitas owns and operates its own water utility. The northern and eastern areas are supplied primarily by the SF RWS, while the remaining areas are supplied by SCVWD. With some exceptions, residents receive SF RWS water, while industrial and commercial areas receive SCVWD water. The City does not blend SF RWS and SCVWD waters under normal operations, but they can be blended during emergency situations.

The City's distribution system consists of 5 turnouts, 9 pressure regulator valves, 4 emergency pressure regulator valves, 5 pumping stations, 5 storage tanks, and 1 well.

The City has emergency interties with ACWD to the north and SJWC to the south. The City has one well, Pinewood Well, which can provide water to one SF RWS-supplied zone during emergencies. Another well is under construction to supplement water supply during emergencies.

Since 1997, the City has been receiving non-potable recycled water from South Bay Water Recycling (SBWR) Program.

**Water Supply and Demand**

<b>Supply by Source</b>	<b>Actual FY 13-14 (ccf)</b>	<b>Actual FY 14-15 (ccf)</b>	<b>Actual FY 15-16 (ccf)</b>	<b>Actual FY 16-17 (ccf)</b>
San Francisco Water	3,194,000	2,503,640	2,215,396	2,391,431
Santa Clara Valley WD	1,335,500	1,548,876	1,485,678	1,406,074
Recycled Water	379,000	409,507	329,206	361,682
Other	0	0	0	0
<b>Total</b>	<b>4,908,500</b>	<b>4,462,023</b>	<b>4,030,280</b>	<b>4,159,187</b>
<b>mgd equivalent</b>	<b>9.19</b>	<b>9.14</b>	<b>8.26</b>	<b>8.52</b>

**Demand by Sector**

Residential	2,103,513	1,943,194	1,718,291	1,797,145
Commercial/Industrial	1,166,300	1,200,415	1,106,090	1,036,659
Other	131,419	538,925	109,428	128,539
Dedicated Irrigation	558,749	581,420	637,919	730,235
Unaccounted for	526,843	198,069	458,552	466,609
<b>Total</b>	<b>4,908,028</b>	<b>4,462,023</b>	<b>4,030,280</b>	<b>4,159,187</b>
<b>mgd equivalent</b>	<b>9.19</b>	<b>9.14</b>	<b>8.26</b>	<b>8.52</b>

<b>Per Capita Use</b>	<b>Actual FY 13-14 (gpcpd)</b>	<b>Actual FY 14-15 (gpcpd)</b>	<b>Actual FY 15-16 (gpcpd)</b>	<b>Actual FY 16-17 (gpcpd)</b>
Residential	62	56	47	48
Gross (Less Recycled Water)	133	117	100	100

**Facilities and Distribution****Storage Reservoirs**

<b>Designation</b>	<b>Type</b>	<b>Capacity (mg)</b>
SFPUC – Gibraltar	Prestressed Concrete	5.00
SFPUC – Ayer	Prestressed Concrete	5.60
SFPUC – Tularcitos	Steel	0.31
SFPUC – Minnis	Steel	0.35
SCVWD – Gibraltar	Prestressed Concrete	5.00
<b>Total</b>		<b>16.26</b>

**Wells**

<b>Name</b>	<b>Capacity (mgd)</b>	<b>Status</b>
Pinewood*	1.7	Active
<b>Total</b>	<b>1.7</b>	

\*Emergency use

**Interties**

<b>Name</b>	<b>No.</b>	<b>Diameter (in.)</b>
SCVWD*	41	6 - 24
SJWC	1	6
ACWD	2	8

\*Emergency and Isolation Valves included.



## City of Mountain View

Public Services Division  
 231 North Whisman Road  
 Mountain View, California 94043  
 Phone: (650) 903-6329 Fax: (650) 962-8079  
 Web: <http://www.mountainview.gov>

### Service Area

The City of Mountain View is located in north Santa Clara County on the Peninsula, between the cities of Sunnyvale and Palo Alto.

### System

#### Profile

Area Size	12 square miles
Service Population	77,801
Number of Accounts	17,987
Number of SF RWS Connections	3 turnouts/ 9 meters
Connections To SF RWS Mains	BDPL 3 and 4
Avg. Day Demand (mgd)	8.45
Avg. Day Purchases From SF RWS (mgd)	6.77
% Demand Met With SF RWS Supplies	84%
Maximum Local Water Production (mgd)	2.4
Alternative Supply Sources	Local Groundwater, SCVWD, Recycled
Interties With Other Agencies	Palo Alto, Sunnyvale, SCVWD, CWS
Local Storage (mg)	17.0
Days of Storage	Note: With loss of SF RWS supply only, City can utilize wells, SCVWD or storage within zones or excess capacity from other zones to meet 8-hour outage or Minimum Winter Demand.

### Summary

The City of Mountain View's primary water supplier is the SF RWS. The Santa Clara Valley Water District supplies treated water and Mountain View supplies groundwater. California Water Service also provides water to a small part of Mountain View. Mountain View's system distributes water to three pressure zones via 176 miles of main, with inter-zonal connections that allow water to flow from adjacent zones. Mountain View has four water storage facilities.

Mountain View has 3 active wells (4 currently out of service). The wells influence each other, resulting in varied maximum and simultaneous flows. They are not currently operated at their maximum capacity due to various maintenance and operational issues.

**Water Supply and Demand**

<b>Supply by Source</b>	<b>Actual FY 13-14 (ccf)</b>	<b>Actual FY 14-15 (ccf)</b>	<b>Actual FY 15-16 (ccf)</b>	<b>Actual FY 16-17 (ccf)</b>
San Francisco Water	4,373,263	3,611,194	3,305,780	3,485,016
Santa Clara Valley WD	529,137	400,146	298,782	391,915
Local Groundwater	209,370	245,464	48,897	54,628
Recycled Water	151,603	178,779	201,357	193,460
<b>Total</b>	<b>5,263,373</b>	<b>4,435,583</b>	<b>3,854,816</b>	<b>4,125,019</b>
<b>mgd equivalent</b>	<b>10.79</b>	<b>9.09</b>	<b>7.90</b>	<b>8.45</b>

**Demand by Sector**

Residential	2,752,779	2,331,572	2,082,952	2,175,622
Commercial/Industrial	901,854	836,989	783,051	755,605
Other	7,445	7,947	7,066	9,904
Dedicated Irrigation	1,256,417	1,030,128	756,193	773,367
Unaccounted for*	344,878	228,947	225,554	410,521
<b>Total</b>	<b>5,263,373</b>	<b>4,435,583</b>	<b>3,854,816</b>	<b>4,125,019</b>
<b>mgd equivalent</b>	<b>10.79</b>	<b>9.09</b>	<b>7.90</b>	<b>8.45</b>

<b>Per Capita Use</b>	<b>Actual FY 13-14 (gpcpd)</b>	<b>Actual FY 14-15 (gpcpd)</b>	<b>Actual FY 15-16 (gpcpd)</b>	<b>Actual FY 16-17 (gpcpd)</b>
Residential	75	63	57	57
Gross	139	114	99	104

**Facilities and Distribution**

**Storage Reservoirs**

<b>Designation</b>	<b>Type</b>	<b>Capacity (gallons)</b>	<b>Designation</b>	<b>Type</b>	<b>Capacity (gallons)</b>
Miramonte	Concrete	1,000,000	Whisman	Concrete	6,000,000
Miramonte	Concrete	2,300,000	Graham	Concrete	8,000,000
<b>Total</b>					<b>17,300,000</b>

**Wells**

<b>Name</b>	<b>Capacity (mgd)</b>	<b>Status</b>	<b>Name</b>	<b>Capacity (mgd)</b>	<b>Status</b>
Well 10	1.2	OOS	Well 21	1.1	OOS
Well 17	0.2	OOS	Well 22	1.1	Active
Well 19	0.7	Active	Well 23*	1.3	Active
Well 20	1.5	OOS	<b>Total</b>	<b>7.1</b>	

**Interties**

<b>Name</b>	<b>No.</b>	<b>Diameter (in.)</b>
Palo Alto	3	6
Sunnyvale	4	6, 8, 8, 8
SCVWD	1	24

## North Coast County Water District

2400 Francisco Boulevard  
 Pacifica, California 94044-6039

Phone: (650) 355-3462 Fax: (650) 355-0735

Web: <http://www.nccwd.com>

### Service Area

The North Coast County Water District serves the northern coastal areas of San Mateo County. The District's boundaries are nearly the same as those of the City of Pacifica.

### System

#### Profile

Area Size	13.6 square miles
Service Population	40,000
Number of Accounts	12,499
Number of SF RWS Connections	1
Connections To SF RWS Mains	San Andreas 3
Avg. Day Demand (mgd)	2.26
Avg. Day Purchases From SF RWS (mgd)	1.84
% Demand Met With SF RWS Supplies	99%
Maximum Local Water Production (mgd)	0
Alternative Supply Sources	Local Surface Water
Interties With Other Agencies	San Bruno, Daly City, Westborough CWD
Local Storage (mg)	23.35
Days of Storage	7.12 – Length of storage based on loss of all sources of supply. All zones can meet the 8 hr criteria either separately or by pumping from zones with excess capacity. San Pedro Creek could meet limited demand in an emergency.

#### Summary

100% of NCCWD water comes from one SF RWS connection at San Andreas. There is a main pump station located on the site of the Harry Tracy WTP, which pumps all the water through a 4 mile pipeline into the Milagra Ridge storage tank located in the Central District area.

The northern portion of the system is supplied by pumping water from the Milagra Ridge Tank site to the Christian Hill tank, then distributing it to the customers via gravity. The southern District's distribution hub, at Royce Tank Site, is supplied via gravity by the Milagra Ridge Tank. Overall, the system is divided into 34 pressure zones, each separated by pressure reducing valves. At average daily demands, there is enough storage to supply the District with water for up to 7.2 days at typical demands and storage. A small amount of water is conveyed to San Bruno annually as a public customer.

The District's only other water source is the San Pedro Creek. Water rights to the creek are limited to 500 gpm between December 1 and April 30, and to 210 gpm during May. This water requires filtering and minimal treatment at the San Pedro WTP adjacent to the creek before distribution. The San Pedro facility is on line and filters creek water, as allowed by the District's water rights, for non-potable uses.

**Water Supply and Demand**

Supply by Source	Actual FY 13-14 (ccf)	Actual FY 14-15 (ccf)	Actual FY 15-16 (ccf)	Actual FY 16-17 (ccf)
San Francisco Water	1,387,578	1,360,780	900,293	1,089,419
Westborough CWD (SF RWS)	0	0	0	0
Recycled Water	5,294	4,120	13,788	15,787
Other	0	0	0	0
<b>Total</b>	<b>1,392,872</b>	<b>1,364,900</b>	<b>914,081</b>	<b>1,105,206</b>
<b>mgd equivalent</b>	<b>2.85</b>	<b>2.80</b>	<b>1.87</b>	<b>2.26</b>

**Demand by Sector**

Residential	1,031,692	911,508	828,122	813,927
Commercial/Industrial	96,158	99,795	91,672	91,672
Other	82,973	62,064	47,161	56,333
Dedicated Irrigation	35,833	24,484	22,785	23,205
Unaccounted for	146,216	267,049	-75,659	120,069
<b>Total</b>	<b>1,380,360</b>	<b>1,364,900</b>	<b>914,081</b>	<b>1,105,206</b>
<b>mgd equivalent</b>	<b>2.85</b>	<b>2.80</b>	<b>1.87</b>	<b>2.26</b>

Per Capita Use	Actual FY 13-14 (gpcpd)	Actual FY 14-15 (gpcpd)	Actual FY 15-16 (gpcpd)	Actual FY 16-17 (gpcpd)
Residential	54	47	42	42
Gross	73	70	46	56

**Facilities and Distribution**

**Potable Storage Reservoirs**

Designation	Capacity (gallons)
13 Reservoirs	23,550,000
<b>Total</b>	<b>23,550,000</b>

**Water Treatment Facilities:**

**Surface Water**

Designation	Capacity (mgd)
San Pedro WTP	0.5

**Recycled Water**

Designation	Capacity (mgd)
Central District	0.3

**Interties**

Name	No.	Diameter (in.)
San Bruno	2	10
Daly City	2	6, 8

Name	No.	Diameter (in.)
Westborough	3	8, 10, 10

## City of Palo Alto

250 Hamilton Avenue

Palo Alto, California 94301-2593

Phone: (650) 329-2119 Fax: (650) 326-1507

Web: <http://www.cityofpaloalto.org>

### Service Area

Located in north Santa Clara County, Palo Alto is the only municipality in California that operates six utilities - electric and fiber, water, gas, waste water collection and treatment, storm drainage and refuse. The utility's service area includes approximately 40 residential accounts (about 100 people) outside of the City's boundaries (in Los Altos Hills and Portola Valley).

### System

#### Profile

Area Size	26 square miles
Service Population	66,930
Number of Accounts	20,214
Number of SF RWS Connections	5
Connections To SF RWS Mains	Palo Alto Pipeline, BDPL 3 and 4
Avg. Day Demand (mgd)	9.57
Avg. Day Purchases From SF RWS (mgd)	8.98
% Demand Met With SF RWS Supplies	94%
Maximum Local Water Production (mgd)	15.05 – 8 emergency wells
Alternative Supply Sources	Recycled Water, Local Groundwater
Interties With Other Agencies	East Palo Alto CWD, Mountain View, Purissima Hills WD, Stanford University
Local Storage (mg)	13
Days of Storage	1.13 – Currently, Palo Alto water system can independently supply 8 hr under maximum day demands for emergency use

#### Summary

The City of Palo Alto's primary source of water is the SF RWS, via 5 turnouts, 3 off the Palo Alto Pipeline and 2 off BDPLs 3 and 4, that in most years provide 100% of Palo Alto's potable water supply. Palo Alto has 9 pressure zones, 7 storage tanks, 5 booster pump stations in the Foothills which pump water to the higher elevation pressure zones, and 2 booster pump stations to support pressure zones 1 and 2.

To improve the capacity of the local water distribution system to provide water during an emergency event, Palo Alto initiated the Emergency Water Supply and Storage Project. The Project included the rehabilitation of 5 existing wells, construction of 3 new wells, and construction of a new 2.5 million gallon emergency water storage reservoir. Palo Alto now has adequate storage and pumping capacity to provide emergency back up during an interruption of SF RWS service. The wells may also be available to meet limited dry year requirements.

Palo Alto replaces potable water with recycled water to irrigate a golf course and a city park, to fill a duck pond, and some uses at the water quality control plant. Recycled water use that does

not replace potable water includes the Emily Renzel Marsh enhancement project and additional process uses at the water quality control plant.

**Water Supply and Demand**

Supply by Source	Actual FY 13-14 (ccf)	Actual FY 14-15 (ccf)	Actual FY 15-16 (ccf)	Actual FY 16-17 (ccf)
San Francisco Water	5,600,519	4,723,751	4,006,084	4,382,560
Local Groundwater	0	0	0	0
Recycled Water	381,066	367,831	350,847	289,668
Other	0	0	0	0
<b>Total</b>	<b>5,981,585</b>	<b>5,091,582</b>	<b>4,356,931</b>	<b>4,672,228</b>
<b>mgd equivalent</b>	<b>12.26</b>	<b>10.43</b>	<b>8.93</b>	<b>9.57</b>

**Demand by Sector**

Residential	3,146,731	2,649,876	2,253,313	2,444,032
Commercial/Industrial	1,023,362	998,760	954,961	980,450
Other	538,971	645,761	583,581	543,728
Dedicated Irrigation	718,281	506,450	368,711	416,340
Unaccounted for	554,240	290,735	196,365	287,678
<b>Total</b>	<b>5,981,585</b>	<b>5,091,582</b>	<b>4,356,931</b>	<b>4,672,228</b>
<b>mgd equivalent</b>	<b>12.26</b>	<b>10.43</b>	<b>8.93</b>	<b>9.57</b>

Per Capita Use	Actual FY 13-14 (gpcpd)	Actual FY 14-15 (gpcpd)	Actual FY 15-16 (gpcpd)	Actual FY 16-17 (gpcpd)
Residential	97	82	68	75
Gross (Less Recycled Water)	172	146	121	134

**Facilities and Distribution**

**Storage Reservoirs**

Designation	Type	Capacity (gallons)	Designation	Type	Capacity (gallons)
Mayfield	Concrete	4,000,000	El Camino	Steel	2,500,000
Boronda	Concrete	1,500,000	Montebello	Steel	1,500,000
Corte Madera	Steel	1,500,000	Park	Steel	1,000,000
Dahl	Steel	1,000,000	<b>Total</b>		<b>13,000,000</b>

**Wells**

<b>Name</b>	<b>Capacity (mgd)</b>	<b>Status</b>
Eleanor Pardee	1.44	New – Operational
Library	0.86	New – Operational
El Camino Park	1.44	New – Operational
Fernando	1.01	Existing – Operational
Hale	2.09	Existing – Operational
Matadero	1.01	Existing – Operational
Peers	2.45	Existing – Operational
Rinconada	4.75	Existing – Operational

**Total** 15.05

**Note:** All wells are designated Emergency/Standby at this time.

**Interties**

<b>Name</b>	<b>No.</b>	<b>Diameter (in.)</b>
East Palo Alto	1	6
Mountain View	2	6, 6
Stanford	2	8, 8
Purissima Hills WD	2	8, 12

## Purissima Hills Water District

26375 Fremont Road

Los Altos Hills, California 94022-2699

Phone: (650) 948-1217 Fax: (650) 948-0961

### Service Area

The Purissima Hills Water District provides service to two-thirds of the Town of Los Altos Hills, a rural community adjacent to the City of Palo Alto, and unincorporated county land on the southern boundary. The District serves predominantly single-family homes on minimum one-acre lots. The largest customer is Foothill College.

### System

#### Profile

Area Size	4,600 acres
Service Population	6,150
Number of Accounts	2,201
Number of SF RWS Connections	2
Connections To SF RWS Mains	BDPL 3 and 4
Avg. Day Demand (mgd)	1.31
Avg. Day Purchases From SF RWS (mgd)	1.31
% Demand Met With SF RWS Supplies	100.0%
Maximum Local Water Production (mgd)	0
Alternative Supply Sources	None
Interties With Other Agencies	CWS - Los Altos, City of Palo Alto
Local Storage (mg)	9.88
Days of Storage	All 4 distribution zones can meet the 8 hr criteria either separately or by pumping from zones with excess capacity

### Summary

Purissima Hills Water District receives 100% of its water supply from two San Francisco/Hetch Hetchy turnouts located along the Foothill Expressway on the northern edge of the District. The SF RWS supply is gravity-fed through 18" transmission mains to the Deer Creek Pump Station and McCann Tanks at 250 feet above sea level.

All services within the District are gravity fed from tanks in the respective zones. The distribution system consists of 4 pressure zones, 11 tanks, 5 pumping stations, 15 pumps, and 80 miles of pipe.

**Water Supply and Demand**

<b>Supply by Source</b>	<b>Actual FY 13-14 (ccf)</b>	<b>Actual FY 14-15 (ccf)</b>	<b>Actual FY 15-16 (ccf)</b>	<b>Actual FY 16-17 (ccf)</b>
San Francisco Water	982,100	803,313	640,369	689,261
Recycled Water	0	0	0	0
Other	0	0	0	0
<b>Total</b>	<b>982,100</b>	<b>803,313</b>	<b>640,369</b>	<b>689,261</b>
<b>Mgd equivalent</b>	<b>2.01</b>	<b>1.65</b>	<b>1.31</b>	<b>1.41</b>

**Demand by Sector**

Residential	885,184	732,811	591,604	627,686
Commercial/Industrial	0	0	0	0
Other	59,871	44,713	24,255	37,137
Dedicated Irrigation	5,339	4,305	5,061	0
Unaccounted for	31,706	21,484	19,449	24,438
<b>Total</b>	<b>982,100</b>	<b>803,313</b>	<b>640,369</b>	<b>689,261</b>
<b>Mgd equivalent</b>	<b>2.01</b>	<b>1.65</b>	<b>1.31</b>	<b>1.41</b>

<b>Per Capita Use</b>	<b>Actual FY 13-14 (gpcpd)</b>	<b>Actual FY 14-15 (gpcpd)</b>	<b>Actual FY 15-16 (gpcpd)</b>	<b>Actual FY 16-17 (gpcpd)</b>
Residential	295	245	197	209
Gross	328	268	213	230

**Facilities and Distribution****Storage Reservoirs**

<b>Designation</b>	<b>Type</b>	<b>Capacity (gallons)</b>	<b>Designation</b>	<b>Type</b>	<b>Capacity (gallons)</b>
MC Tank 1	Steel	130,000	A Tank 1	Redwood	200,000
MC Tank 2	Steel	1,000,000	A Tank 2	Cor-ten Steel	250,000
LC Tank 1	Steel	100,000	N Tank 1	Cor-ten Steel	200,000
LC Tank 2	Cor-ten Steel	900,000	N Tank 2	Cor-ten Steel	3,000,000
HH Tank	Concrete	3,100,000	PM Tank	Cor-ten Steel	500,000
E Tank	Steel	500,000	<b>Total</b>		<b>9,880,000</b>

**Interties**

<b>Name</b>	<b>No.</b>	<b>Diameter (in.)</b>
CWS - Los Altos	2	8, 12
City of Palo Alto	2	12, 12

## City of Redwood City

Community Development Department  
 1400 Broadway  
 Redwood City, California 94063-2505  
 Phone: (650) 780-7464 Fax: (650) 780-7445  
 Web: <http://www.redwoodcity.org/departments/public-works/water>

### Service Area

Redwood City is located in south San Mateo County. The City of Redwood City owns and operates its own water utility, and supplies water beyond its City limits, to portions of the Town of Woodside, the City of San Carlos, and unincorporated areas of the County.

### System

#### Profile

Area Size	35 square miles
Service Population	87,02387,023
Number of Accounts	23,559
Number of SF RWS Connections	13
Connections To SF RWS Mains	Bay Crossing 1 and 2, BDPL 1, 2, and 5, BDPL 3 and 4
Avg. Day Demand (mgd)	8.43
Avg. Day Purchases From SF RWS (mgd)	7.83
% Demand Met With SF RWS Supplies	93%
Maximum Local Water Production (mgd)	0
Alternative Supply Sources	Recycled water for landscape irrigation, industrial, and dual pumped uses
Interties With Other Agencies	CWS -Bear Gulch, CWS - Mid- Peninsula, Mid-Peninsula WD, Menlo Park
Local Storage (mg)	21.24
Days of Storage	2.2 days storage. – 4 of 14 pressure zones have no storage facilities. The 4 zones without storage have emergency interties with other water agencies.

#### Summary

The City of Redwood City purchases all of its potable water from the SF RWS via 13 active meter connections. 7 of the turnouts are located off Bay Division Pipelines 1 and 2, 1 turnout is off BDPL 1, 2, and 3, and 5 turnouts are off BDPL 3 and 4.

The distribution system consists of 14 separate pressure zones, 10 pump stations and 264.5 miles of water mains. Pumps are located at 7 of the 11 storage sites. In addition, there are permanent generators at the Glenloch, Peninsula 1, and Peninsula 2 tanks, and 2 portable generators on stand-by.

The City has a total of 11 emergency interties with California Water Service of San Carlos, Mid-Peninsula Water District, and the City of Menlo Park.

**Water Supply and Demand**

Supply by Source	Actual FY 13-14 (ccf)	Actual FY 14-15 (ccf)	Actual FY 15-16 (ccf)	Actual FY 16-17 (ccf)
San Francisco Water	4,407,672	3,789,370	3,508,414	3,820,098
Recycled Water	323,213	310,329	282,017	294,771
Other	0	0	0	0
<b>Total</b>	<b>4,730,885</b>	<b>4,099,699</b>	<b>3,790,431</b>	<b>4,114,869</b>
<b>mgd equivalent</b>	<b>9.70</b>	<b>8.40</b>	<b>7.77</b>	<b>8.43</b>

**Demand by Sector**

Residential	2,666,567	2,245,955	2,245,955	2,399,189
Commercial/Industrial	766,108	748,298	748,298	703,482
Other	82,618	73,591	73,591	72,007
Dedicated Irrigation	579,350	473,004	473,004	502,184
Unaccounted for	5,056	249,583	249,583	438,007
<b>Total</b>	<b>4,099,699</b>	<b>3,790,431</b>	<b>3,790,431</b>	<b>4,114,869</b>
<b>mgd equivalent</b>	<b>8.40</b>	<b>7.77</b>	<b>7.77</b>	<b>8.43</b>

Per Capita Use	Actual FY 14-15 (gpcpd)	Actual FY 15-16 (gpcpd)	Actual FY 15-16 (gpcpd)	Actual FY 16-17 (gpcpd)
Residential	63	53	53	57
Gross (Less Recycled Water)	89	83	83	90

**Facilities and Distribution**

**Storage Reservoirs**

Designation	Type	Capacity (mg)	Designation	Type	Capacity (mg)
Easter Cross	Steel	0.10	Lakeview	Steel	1.00
Easter Bowl	Steel	1.20	Main City Zone	Steel	8.00
Glenloch	Steel	0.09	Main City Zone	Steel	3.75
Wilmington South	Steel	0.25	Redwood Shores	Steel	3.20
Cambridge	Steel	0.65	Redwood Shores	Steel	3.00
<b>Total</b>					<b>21.24</b>

**Interties**

Name	No.	Diameter (in.)	Name	No.	Diameter (in.)
BCWD	1	12	Douglas / Fair Oaks	1	6
BCWD and CWS	1	12	CWS – Bear Gulch	2	6
Oakwood / El Camino	1	6	Bransten / Industrial	1	8
MPW	1	6	San Carlos	2	6, Fire Hose
Alameda / Edgewood	1	Fire Hose	Eaton	1	Fire Hose

## City of San Bruno

Public Works - Water Division

567 El Camino Real

San Bruno, California 94066

Phone: (650) 616-7065 Fax: (650) 794-1443

Web: [http://www.sanbruno.ca.gov/city\\_services/public\\_works/utilities/water.html](http://www.sanbruno.ca.gov/city_services/public_works/utilities/water.html)

### Service Area

The City of San Bruno is located in north San Mateo County. San Bruno is a residential community with regional commercial and light industrial development. The Public Works Water Division's service area includes the City of San Bruno and unincorporated areas of the County.

### System

#### Profile

Area Size	6.1 square miles
Service Population	44,409
Number of Accounts	11,482
Number of SF RWS Connections	5
Connections To SF RWS Mains	Crystal Springs # 2 and #3, San Andreas 1, 2, and 3, Sunset Pipeline
Avg. Day Demand (mgd)	2.93
Avg. Day Purchases From SF RWS (mgd)	1.31
% Demand Met With SF RWS Supplies	27%
Maximum Local Water Production (mgd)	1.90
Alternative Supply Sources	Local Groundwater
Interties With Other Agencies	North Coast CWD, CWS - South San Francisco
Local Storage (mg)	8.3
Days of Storage	2.5 - Length of storage based on loss of all sources of supply. All zones can meet the 8 hr criteria either separately or by pumping from zones with excess capacity. Well water could meet partial demand in an emergency.

#### Summary

The City of San Bruno receives its water through 5 San Francisco Public Utilities Commission turnouts and from 5 deep-water wells. The City also purchases water from the North Coast County Water District. The Public Works Water Division maintains a distribution system that includes 13 pressure zones, 21 pumps, 8 water tanks, 900 hydrants, and 100 miles of mains.

SF RWS water is filtered by the Harry Tracy plant (San Andreas Reservoir) and supplied to upper elevation areas of the community. Crystal Springs Supply Lines #2 or #3 deliver to the lower elevations. The groundwater is blended with water from SF RWS; the combined water supply meets all MCLs.

**Water Supply and Demand**

<b>Supply by Source</b>	<b>Actual FY 13-14 (ccf)</b>	<b>Actual FY 14-15 (ccf)</b>	<b>Actual FY 15-16 (ccf)</b>	<b>Actual FY 16-17 (ccf)</b>
SF RWS - Customary	779,582	584,392	637,586	383,693
SF RWS - Supplemental	0	0	83,663	895,413
Local Groundwater	948,253	922,147	777,032	129,317
Surface Water	0	0	0	0
Recycled Water	0	0	0	0
Other (North Coast CWD)	19,887	23,361	21,622	21,121
<b>Total</b>	<b>1,747,722</b>	<b>1,529,900</b>	<b>1,519,903</b>	<b>1,429,544</b>
<b>mgd equivalent</b>	<b>3.58</b>	<b>3.14</b>	<b>3.11</b>	<b>2.93</b>

**Demand by Sector**

Residential	1,169,527	1,041,912	1,022,388	974,044
Commercial/Industrial	325,988	304,363	285,374	55,469
Other	98,441	61,674	60,761	58,938
Unaccounted for	153,766	121,951	151,380	341,093
<b>Total</b>	<b>1,747,722</b>	<b>1,529,900</b>	<b>1,519,903</b>	<b>1,429,544</b>
<b>mgd equivalent</b>	<b>3.58</b>	<b>3.14</b>	<b>3.11</b>	<b>2.93</b>

<b>Per Capita Use</b>	<b>Actual FY 13-14 (gpcpd)</b>	<b>Actual FY 14-15 (gpcpd)</b>	<b>Actual FY 15-16 (gpcpd)</b>	<b>Actual FY 16-17 (gpcpd)</b>
Residential	55	49	47	45
Gross	82	72	70	66

**Facilities and Distribution****Storage Reservoirs**

<b>Designation</b>	<b>Type</b>	<b>Capacity (gallons)</b>
Storage Tank 1	Steel	2,500,000
Storage Tank 3	Concrete	2,000,000
Storage Tank 4	Steel	1,000,000
Storage Tank 6	Steel	400,000
Storage Tank 6A	Steel	1,000,000
Storage Tank 7	Steel	400,000
Storage Tank 9	Steel	500,000
Storage Tank 10	Steel	500,000
<b>Total</b>		<b>8,300,000</b>

**Wells**

<b>Name</b>	<b>Capacity (mgd)</b>	<b>Status</b>
Well 15**	0.26	Active
Well 16**	0.72	Active
Well 17*	0.40	Active
Well 18**	0.29	Active
Well 20**	0.85	Active
<b>Total</b>	<b>2.52</b>	

**Interties**

<b>Name</b>	<b>No.</b>	<b>Diameter (in.)</b>
North Coast	2	21
CWS	1	8

**City of San Jose**  
**San Jose Municipal Water System - North**

3025 Tuers Road  
 San Jose, California 95121  
 Phone: (408) 277-4218 Fax: (408) 277-4954  
 Web: <http://www.sjmuniwater.com>

**Service Area**

Located in north central Santa Clara County, the North San Jose/Alviso service area is predominantly industrial with some residential and commercial land use.

**System**

**Profile**

Area Size	5.3 square miles
Service Population	13,733
Number of Accounts	2,225
Number of SF RWS Connections	2
Connections To SF RWS Mains	BDPL 3 and 4
Avg. Day Demand (mgd)	4.77 Potable and Recycled
Avg. Day Purchases From SF RWS (mgd)	4.15
% Demand Met With SF RWS Supplies	87%
Maximum Local Water Production (mgd)	0
Alternative Supply Sources	Ground Water and Recycled Water
Interties With Other Agencies	City of Santa Clara
Local Storage (mg)	6.0
Days of Storage	1.3 – Length of storage based on loss of all sources of supply. Can meet the required 8 hr. coverage with storage alone. Well water, normally used supplementally, could supply peak demand in an emergency

**Summary**

The North San Jose/Alviso water service area in the City of San Jose is supplied primarily by the SF RWS through two turnouts off the Bay Division Pipelines 3 and 4.

The SF RWS turnouts are equipped with emergency connections for a portable chlorinator.

The North San Jose/Alviso service area has two storage tanks and four wells capable of meeting average and peak flow demands that supplement the SF RWS supply during high flow periods. An intertie with the City of Santa Clara can be activated within 2 hours.

Other communities in the San Jose Municipal Water System are supplied primarily by water purchased from the Santa Clara Valley Water District, with supplemental supplies coming from local groundwater.

**Water Supply and Demand**

<b>Supply by Source</b>	<b>Actual FY 13-14 (ccf)</b>	<b>Actual FY 14-15 (ccf)</b>	<b>Actual FY 15-16 (ccf)</b>	<b>Actual FY 16-17 (ccf)</b>
San Francisco Water	2,272,262	2,151,905	1,997,596	2,024,785
Local Groundwater	0	16,913	29,465	0
Recycled Water	404,401	352,857	364,746	0
Other	0	0	0	300,817
<b>Total</b>	<b>2,676,663</b>	<b>2,521,675</b>	<b>2,391,807</b>	<b>2,325,602</b>
<b>mgd equivalent</b>	<b>5.49</b>	<b>5.17</b>	<b>4.90</b>	<b>4.77</b>

**Demand by Sector**

Residential	686,611	1,018,955	930,564	773,467
Commercial/Industrial	1,168,458	923,177	875,508	885,644
Other	56,133	40,372	38,774	35,895
Dedicated Irrigation	777,405	476,737	456,091	549,254
Unaccounted for	-11,944	62,434	90,871	81,342
<b>Total</b>	<b>2,676,663</b>	<b>2,521,675</b>	<b>2,391,807</b>	<b>2,325,602</b>
<b>mgd equivalent</b>	<b>5.49</b>	<b>5.17</b>	<b>4.90</b>	<b>4.77</b>

<b>Per Capita Use</b>	<b>Actual FY 13-14 (gpcpd)</b>	<b>Actual FY 14-15 (gpcpd)</b>	<b>Actual FY 15-16 (gpcpd)</b>	<b>Actual FY 16-17 (gpcpd)</b>
Residential	92	131	211	115
Gross (Less Recycled Water)	305	279	459	302

**Facilities and Distribution****Storage Reservoirs**

<b>Designation</b>	<b>Type</b>	<b>Capacity (mg)</b>
Storage Tank 1	Steel	3
Storage Tank 2	Steel	3
<b>Total</b>		<b>6</b>

**Wells**

<b>Name</b>	<b>Capacity (mgd)</b>	<b>Status</b>	<b>Name</b>	<b>Capacity (mgd)</b>	<b>Status</b>
Well 1	2.0	Standby	Well 3	2.0	Standby
Well 2	2.0	Active	Well 4	2.0	Active
<b>Total</b>	<b>8.0</b>				

**Interties**

<b>Name</b>	<b>No.</b>	<b>Diameter (in.)</b>
Santa Clara	1	8

## City of Santa Clara

1500 Warburton Avenue  
 Santa Clara, California 95050-3792  
 Phone: (408) 615-2000 Fax: (408) 247-0784  
 Web: <http://santaclaraca.gov/waterandsewer>

### Service Area

The City of Santa Clara is located at the south end of the San Francisco Bay in Santa Clara County. The northern area of the City is predominantly commercial/industrial, while the southern part is primarily residential.

### System

#### Profile

Area Size	19.3 square miles
Service Population	123,752
Number of Accounts	25,714
Number of SF RWS Connections	2
Connections To SF RWS Mains	BDPL 3 and 4
Avg. Day Demand (mgd)	18.73
Avg. Day Purchases From SF RWS (mgd)	1.99
% Demand Met With SF RWS Supplies	11%
Maximum Local Water Production (mgd)	23.3 – This volume is historically sustainable for 1 month, but may not be sustainable for longer periods.
Alternative Supply Sources	Local Groundwater
Interties With Other Agencies	Santa Clara Valley WD
Local Storage (mg)	26.8
Days of Storage	1 – Length of storage based on loss of all sources of supply. All zones can meet the 8 hr criteria either separately or by pumping from zones with excess capacity. Well water, normally used supplementally, could supply peak demand in an emergency.

\* Average daily demand includes recycled water

### Summary

The City of Santa Clara purchases water from SF RWS and SCVWD. Two SF RWS turnouts off BDPL 3 and 4 supply the Northside tank and booster station, which distributes water to the northernmost pressure zone of the City. Water from SCVWD is delivered to the southwest portion of the City through the Santa Clara Distributary.

Water from 26 active wells meet current drinking water standards without treatment, and produce over half of the City's water supply.

The City also operates a recycled water system, which is part of the South Bay Water Recycling system. Tertiary treated effluent from the jointly owned San Jose-Santa Clara Water Pollution Control Plan is available for landscape irrigation and certain industrial uses, distributed within Santa Clara by about 20 miles of pipeline.

**Water Supply and Demand**

<b>Supply by Source</b>	<b>Actual FY 13-14 (ccf)</b>	<b>Actual FY 14-15 (ccf)</b>	<b>Actual FY 15-16 (ccf)</b>	<b>Actual FY 16-17 (ccf)</b>
San Francisco Water	1,012,567	914,572	1,135,829	970,987
Santa Clara Valley WD	1,870,035	1,470,999	1,901,738	1,920,855
Local Groundwater	6,287,164	5,816,028	4,291,577	4,752,405
Recycled Water	1,587,740	1,567,103	1,488,319	1,497,626
Other	0	0	0	0
<b>Total</b>	<b>10,757,506</b>	<b>9,768,702</b>	<b>8,817,463</b>	<b>9,141,873</b>
<b>mgd equivalent</b>	<b>22.05</b>	<b>20.02</b>	<b>18.07</b>	<b>18.73</b>

**Demand by Sector**

Residential	4,730,865	4,076,317	3,500,320	3,452,426
Commercial/Industrial	4,377,915	4,151,499	3,876,460	3,247,531
Other	1,156,381	1,043,433	941,284	423,860
Dedicated Irrigation	0	0	0	0
Unaccounted for	492,344	497,453	499,399	2,018,056
<b>Total</b>	<b>10,757,943</b>	<b>9,768,702</b>	<b>8,817,463</b>	<b>9,141,873</b>
<b>mgd equivalent</b>	<b>22.05</b>	<b>20.02</b>	<b>18.07</b>	<b>18.73</b>

<b>Per Capita Use</b>	<b>Actual FY 13-14 (ccf)</b>	<b>Actual FY 14-15 (ccf)</b>	<b>Actual FY 15-16 (ccf)</b>	<b>Actual FY 16-17 (ccf)</b>
Residential	82	67	58	57
Gross (Less Recycled Water)	159	139	124	127

**Facilities and Distribution****Storage Reservoirs**

<b>Designation</b>	<b>Type</b>	<b>Capacity (mg)</b>
Northside Tank 1	Steel	4.7
Northside Tank 2	Steel	4.7
Serra	Steel	13.2
Downtown	Steel	4.2
<b>Total</b>		<b>26.8</b>

**Wells**

Name	Capacity (mgd)	Status
Well 2-02	2.7	Active
Well 3-02	2.6	Active
Well 4	1.4	Active
Well 5-02	2.3	Active
Well 7	1.7	Active
Well 8	1.6	Active
Well 9-02	1.5	Active
Well 10	2.4	Active
Well 11	2.5	Active
Well 12	2.1	Active
Well 13-02	2.4	Active
Well 14	1.6	Active
Well 15	1.2	Active

Name	Capacity (mgd)	Status
Well 16-02	1.6	Active
Well 17-02	2.9	Active
Well 18-02	1.9	Active
Well 21	2.6	Active
Well 22-02	1.7	Active
Well 23	2.6	Active
Well 24	2.2	Active
Well 25	1.3	Active
Well 26	1.4	Active
Well 28	2.8	Active
Well 29	2.7	Active
Well 30	2.0	Active
Well 34	1.4	Active

**Total** 55.5

**Interties**

Name	No.	Diameter (in.)
SCVWD	1	10

## Stanford University

327 Bonair Siding

Stanford, California 94305-7272

Phone: (650) 723-9747 Fax: (650) 723-3191

Web: <https://suwater.stanford.edu>

### Service Area

The Stanford Sustainability & Energy Management Department supplies water to the campus area and nearby Stanford unincorporated lands.

### System

#### Profile

Area Size	3.1 square miles
Service Population	31,558*
Number of Accounts	n/a
Number of SF RWS Connections	3
Connections To SF RWS Mains	BDPL 3 and 4, 1 turnout off Palo Alto pipeline
Avg. Day Demand (mgd)	2.35
Avg. Day Purchases From SF RWS (mgd)	1.42
% Demand Met With SF RWS Supplies	61% (100% of domestic water)
Average Day Local Water Production (mgd)	0.93
Alternative Supply Sources	Local groundwater, surface water, recycled water**
Interties With Other Agencies	Palo Alto
Local Storage (mg)	8
Days of Storage	2.5 to 4 – All 3 zones can meet the 8 hr criteria either separately or by pumping from zones with excess capacity. Wells can supply an additional 3.7 mgd in an emergency.

\*Average daytime population is used for current and future projections.

\*\* In FY-08-09, Stanford completed a recycled water plant that treats wastewater from the former Cogeneration Facility cooling tower blow-down for reuse for toilet and urinal flushing in new buildings. The plant was decommissioned in 2015 with the construction of the Stanford Energy System Innovations (SESI) Central Energy Facility. Source water for the recycled water system was lost but the infrastructure remains and can resume using recycled water once another source is established.

### Summary

Stanford has four sources of water supply: purchased potable water from the SF RWS, groundwater, non-potable surface water from the local watershed, and recycled water.

SF RWS water is delivered through two turnouts off BDPL 3 and 4 and one turnout off the Palo Alto pipeline. There are four wells located on Stanford property that could be used in an emergency. Three of the wells are in compliance with all drinking water standards, while the fourth well is “standby”, since its manganese levels exceed current standards.

Stanford also has a non-potable (irrigation) water system that supplies more than 80% of its irrigation needs, significantly reducing Stanford’s use of potable water for irrigation. This system is typically supplied by Stanford’s surface water diversions, and supplemented by ground water. The extent of ground water use depends on the amount of rainfall and resulting surface water

supply availability. The lake water system can also be supplied as needed by SF RWS water.

### Water Supply and Demand

Supply by Source	Actual FY 13-14 (ccf)	Actual FY 14-15 (ccf)	Actual FY 15-16 (ccf)	Actual FY 16-17 (ccf)
San Francisco Water	1,024,277	923,813	679,394	695,088
Local Groundwater	497,660	313,982	300,686	198,507
Surface Water	31,335	158,579	93,476	254,967
Other	0	0	0	0
<b>Total</b>	<b>1,553,272</b>	<b>1,396,374</b>	<b>1,073,556</b>	<b>1,148,562</b>
<b>mgd equivalent</b>	<b>3.18</b>	<b>2.86</b>	<b>2.20</b>	<b>2.35</b>

**Note:** The sources of water contributing to the non-potable irrigation water system have been tracked through various methods in order to fit within the format of the Annual Survey. Prior to the 2014-2015 Annual Survey, the volume entering storage was subtracted from total surface water diverted and water used from storage. In the 2014-2015 Annual Survey, water added to storage was subtracted from the metered groundwater or surface water source to better account for the source contributing to storage. Prior to the 2015-2016 Annual Survey, all water coming from storage was assumed to be surface water. In order to better reflect the sources of water used in the non-potable irrigation system, beginning in the 2015-2016 Annual Survey the source of stored water is being accounted for by tracking the volume of groundwater that enters and is used from storage. Assumptions for this new method include a starting point of zero groundwater in the non-potable irrigation system storage as of July 2013, surface water entering storage first, and groundwater used from storage first.

### Demand by Sector

Residential	421,060	360,634	347,058	353,241
Commercial/Industrial	259,044	239,727	87,498	66,036
Other	276,377	263,966	140,481	157,835
Dedicated Irrigation	596,791	532,045	442,795	498,566
Unaccounted for	0	2	55,724	72,884
<b>Total</b>	<b>1,553,272</b>	<b>1,396,374</b>	<b>1,073,556</b>	<b>1,148,562</b>
<b>mgd equivalent</b>	<b>3.18</b>	<b>2.86</b>	<b>2.20</b>	<b>2.35</b>

**Notes:** The new SESI Central Energy Facility uses 70% less water than the former Cogeneration Facility, which caused the commercial/industrial demand to decrease beginning in April 2015.

In 2014-2015 Annual Survey the Multi-Family Residential consumption was under reported due to metering issues at 1 MFR complex.

Due to the differing bill period schedules of SFPUC and Stanford, reporting for the Annual Surveys between 2011 and 2015 included the difference between Production and total Consumption within the customer categories. The difference between Production and Consumption totals includes both the different bill period schedules of SFPUC and Stanford, and actual unaccounted for water. Beginning in the 2015-2016 Annual Survey the full difference is reported in the "Unaccounted for" category.

Per Capita Use	Actual FY 13-14 (gpcpd)	Actual FY 14-15 (gpcpd)	Actual FY 15-16 (gpcpd)	Actual FY 16-17 (gpcpd)
Residential	n/a	n/a	n/a	n/a
Gross	107	94	71	75

**Note:** Due to its unique service area, Stanford's residential per capita numbers are excluded.

**Facilities and Distribution****Storage Reservoirs**

Designation	Type	Capacity (gallons)
Foothill 1		2,000,000
Foothill 2		6,000,000
San Juan*		0
<b>Total</b>		<b>8,000,000</b>

\*Currently out of service

**Wells**

Name	Capacity (gpm)	Status
Well 1	500	Active
Well 2	500	Active
Well 3R	1200	Active
Well 4R	400	Inactive
Well 5	500	Standby
<b>Total</b>	<b>3100**</b>	

**Interties**

Name	No.	Diameter (in.)
Roth Way	1	8
Sandhill	1	8

\*\*Actual total well capacity will be less than total indicated. Simultaneous pumping of wells will affect the individual well pumping rates. Wells are periodically taken out of service for maintenance

## City of Sunnyvale

Environmental Services Department

P.O. Box 3707

Sunnyvale, California 94088-3707

Phone: (408) 730-7510 Fax: (408) 736-1611

Web: <http://sunnyvale.ca.gov/Departments/EnvironmentalServices/Water.aspx>

### Service Area

The City of Sunnyvale is an urban industrial and residential community located at the south end of the Peninsula in Santa Clara County, with a service area for the water utility contiguous with its city limits. California Water Service also serves several small areas within the City.

### System

#### Profile

Area Size	24 square miles
Service Population	149,831
Number of Accounts	28,164
Number of SF RWS Connections	6
Connections To SF RWS Mains	BDPL 3 and 4
Avg. Day Demand (mgd)	15.87
Avg. Day Purchases From SF RWS (mgd)	8.33
% Demand Met With SF RWS Supplies	53%
Maximum Local Water Production (mgd)	1.13
Alternative Supply Sources	Local Groundwater
Interties With Other Agencies	CWS, SCVWD, Mountain View, Cupertino
Local Storage (mg)	27.5
Days of Storage	More Than 1 Day – Length of storage based on loss of all sources of supply. With loss of SF RWS supply only, City can utilize wells, SCVWD or excess capacity from other zones to meet 8 hour outage.

#### Summary

Sunnyvale's water utility receives water supplied from SF RWS via 6 turnouts off BDPL 3 and 4 in the northern section of the City. The SCVWD connections are located in the far southwest corner of the City. Water from SCVWD is primarily served from the District's Rinconada WTP. A few formerly unincorporated County of Santa Clara pockets are currently served by CWS, backed up by interties with the City.

Groundwater is provided by 7 active wells, with 1 well on stand-by status. Water from these wells meets all current drinking water standards without treatment. The wells are used to meet peaking requirements and to supply water for fire and other emergencies. Due to the overall cost of producing well water, including pump tax, power, operation and maintenance expenses, and amortization, it is cost-effective for the City to maximize use of water from SF RWS and SCVWD.

The City has 10 ground storage tanks, with a minimum of 1 storage tank in every zone, and additional tanks located at water plants in the City.

The potable distribution system is completely interconnected and includes 3 pressure zones, 21 booster pumps, 3,310 fire hydrants, more than 10,000 manual and automatic valves, and 280 miles of mains. Recycled non-potable water is used for irrigation services.

### Water Supply and Demand

Supply by Source	Actual FY 13-14 (ccf)	Actual FY 14-15 (ccf)	Actual FY 15-16 (ccf)	Actual FY 16-17 (ccf)
San Francisco Water	4,046,527	3,874,640	3,894,246	4,066,178
Santa Clara Valley WD	4,495,704	3,276,953	2,858,242	3,458,667
Local Groundwater	452,589	506,472	65,632	61,977
Surface Water	0	0	0	0
Recycled Water	0	137,016	390,696	157,626
Other	0	0	0	0
<b>Total</b>	<b>8,994,820</b>	<b>7,795,081</b>	<b>7,208,816</b>	<b>7,744,448</b>
<b>mgd equivalent</b>	<b>18.43</b>	<b>15.97</b>	<b>14.77</b>	<b>15.87</b>

### Demand by Sector

Residential	5,729,468	4,885,613	3,907,240	4,135,875
Commercial/Industrial	1,859,237	1,710,519	1,508,808	1,576,363
Other	132,172	1,821,591	2,221,230	371,966
Dedicated Irrigation	1,705,099	857,993	629,772	1,100,904
Unaccounted for	-431,156	229,884	450,574	559,340
<b>Total</b>	<b>8,994,820</b>	<b>7,795,081</b>	<b>7,208,816</b>	<b>7,744,448</b>
<b>mgd equivalent</b>	<b>18.43</b>	<b>15.97</b>	<b>14.77</b>	<b>15.87</b>

Per Capita Use	Actual FY 13-14 (gpcpd)	Actual FY 14-15 (gpcpd)	Actual FY 15-16 (gpcpd)	Actual FY 16-17 (gpcpd)
Residential	80	68	54	57
Gross (Less Recycled Water)	125	106	94	104

### Facilities and Distribution

#### Storage Reservoirs

Designation	Type	Capacity (gallons)	Designation	Type	Capacity (gallons)
Wolfe-Evelyn	Steel	5,000,000	Central 1	Steel	500,000
Mary-Carson 1	Steel	5,000,000	Central 2	Steel	500,000
Mary-Carson 2	Steel	5,000,000	Hamilton 1	Steel	500,000
Wright Avenue 1	Steel	5,000,000	Hamilton 2	Steel	500,000
Wright Avenue 2	Steel	5,000,000	Hamilton 3	Steel	500,000
			<b>Total</b>		<b>27,500,000</b>

**Wells**

<b>Name</b>	<b>Capacity (mgd)</b>	<b>Status</b>
Westmoor	0.8	Active
Serra	0.9	Active
Ortega	2.0	Active
Raynor	2.7	Active
Hamilton (1).	2.0	Active
Hamilton (2).	2.0	Active
Losse		Standby
Central	0.7	Inactive
Schroeder		Destroyed
<b>Total</b>	11.1	

**Interties**

<b>Name</b>	<b>No.</b>	<b>Diameter (in.)</b>
SCVWD	2	30, 12
Santa Clara	3	10
	2	12
	1	8
CWS	5	6
	1	8
Cupertino	1	12
Mountain View	2	8
	1	6

## Westborough County Water District

2263 Westborough Boulevard

South San Francisco, California 94080-5406

Phone: (650) 589-1435 Fax: (650) 589-5167

Web: <http://www.westboroughwater.com>

### Service Area

The Westborough Water District is located within the City of South San Francisco in north San Mateo County. The District provides both water and sewer service, and has an agreement with the North San Mateo County Sanitation District for sewage disposal and facility maintenance.

### System

#### Profile

Area Size	1 square mile
Service Population	14,050
Number of Accounts	3,882
Number of SF RWS Connections	1
Connections To SF RWS Mains	San Andreas 1, 2, and 3
Avg. Day Demand (mgd)	0.73
Avg. Day Purchases From SF RWS (mgd)	0.73
% Demand Met With SF RWS Supplies	100.0%
Maximum Local Water Production (mgd)	0
Alternative Supply Sources	None
Interties With Other Agencies	North Coast CWD, Daly City
Local Storage (mg)	6.5
Days of Storage	6.5 – All zones can meet the required 8 hr. coverage.. During emergencies, District also has access to an additional 3.5 mg in storage owned by North Coast WD.

#### Summary

The Westborough Water District receives its entire water supply from the San Francisco Public Utilities Commission through a single 6" turnout located on Westborough Boulevard. This water is distributed to 3 Skyline storage tanks located at the north end of the district, from which the Skyline Pump Station pumps water to the Christen Hill Reservoir for gravity distribution to Zone 3, and the Main Water Pump Station pumps water to Zones 1 and 2.

The Christen Hill Reservoir is shared with the North Coast County Water District.

The WCWD distribution system includes 3 storage tanks, 2 pumping stations, 5 pumps, and 24 miles of mains. In addition to the Christen Hill Reservoir intertie with NCCWD, the district has an intertie with Daly City.

**Water Supply and Demand**

<b>Supply by Source</b>	<b>Actual FY 13-14 (ccf)</b>	<b>Actual FY 14-15 (ccf)</b>	<b>Actual FY 15-16 (ccf)</b>	<b>Actual FY 16-17 (ccf)</b>
San Francisco Water	433,980	377,034	390,753	356,722
Local Groundwater	0	0	0	0
Surface Water	0	0	0	0
Recycled Water	0	0	0	0
Other	0	0	0	0
<b>Total</b>	<b>433,980</b>	<b>377,034</b>	<b>390,753</b>	<b>356,722</b>
<b>mgd equivalent</b>	<b>0.89</b>	<b>0.77</b>	<b>0.80</b>	<b>0.73</b>

**Demand by Sector**

Residential	313,148	302,544	288,276	284,986
Commercial/Industrial	26,092	21,572	19,729	26,058
Other	0	0	0	0
Dedicated Irrigation	54,316	35,974	19,690	22,214
Unaccounted for	40,424	16,944	63,058	23,464
<b>Total</b>	<b>433,980</b>	<b>377,034</b>	<b>390,753</b>	<b>356,722</b>
<b>mgd equivalent</b>	<b>0.89</b>	<b>0.77</b>	<b>0.80</b>	<b>0.73</b>

<b>Per Capita Use</b>	<b>Actual FY 13-14 (gpcpd)</b>	<b>Actual FY 14-15 (gpcpd)</b>	<b>Actual FY 15-16 (gpcpd)</b>	<b>Actual FY 16-17 (gpcpd)</b>
Residential	48	47	42	42
Gross	67	58	57	52

**Facilities and Distribution****Storage Reservoirs**

<b>Designation</b>	<b>Type</b>	<b>Capacity (mg)</b>
SS Tank 1	Steel	1.5
SS Tank 2	Steel	2.5
SS Tank 3	Steel	2.0
CH Reservoir	Steel	0.5
<b>Total</b>		<b>6.5</b>

**Interties**

<b>Name</b>	<b>No.</b>	<b>Diameter (in.)</b>
North Coast	1	8
Daly City	1	12