

# ANNUAL SURVEY



March  
2020

Fiscal Year 2018-19

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



# Bay Area Water Supply and Conservation Agency FY 2018-19

- 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

MARCH 2020

# BAWSCA WATER FACTS AT-A-GLANCE – FY 2018-19

## 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	750,572	16
Santa Clara County	117	561,997	8
Alameda County	166	516,660	2
<b>Total</b>	468	1,829,229	26

## Supply by Source

	ccf	mgd	af	%
San Francisco RWS	63,778,441	130.7	146,415	66.9%
Groundwater	7,973,095	16.34	18,300	8.3%
Surface Water	2,704,580	5.54	6,208	2.8%
Recycled Water	4,099,925	8.40	9,410	4.3%
Other Sources	16,838,587	34.51	38,648	17.6%
<b>Total</b>	95,394,628	195.5	218,996	100%

## Demand by Sector

	ccf	mgd	af	%
Residential	53,982,195	110.63	123,899	56.5%
Commercial/Industrial	21,250,594	43.55	48,774	22.2%
Government/Institutional/Other	5,004,701	10.26	11,487	5.2%
Dedicated Irrigation	9,749,108	19.98	22,376	10.2%
Non-Revenue Water	5,600,562	11.48	12,854	5.9%
<b>Total</b>	95,587,160	195.9	219,390	100%

## 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

## TABLE OF CONTENTS

### Executive Summary

About BAWSCA .....	ES-1
BAWSCA Member Agencies .....	ES-1
Annual Survey Overview .....	ES-3
Purchases from SF RWS .....	ES-3
Total Water Demand and Supply .....	ES-4
Current Water Use by Class of Customer .....	ES-7
Climate Data .....	ES-8
Population and Per Capita Water Use .....	ES-8
Single Family Water and Rate Structures .....	ES-9

### 1. BAWSCA Overview

Goals .....	1-1
Composition .....	1-1
Governance .....	1-2
Organization and Budget .....	1-2
Organizational Challenges .....	1-2
BAWSCA Members Summary – FY 2018-19 (Table 1) .....	1-4

### 2. Past and Current Purchases from SF RWS

Past and Current Purchases from SF RWS and Relationship to the Supply Guarantee (Table 2A) .....	2-2
Monthly/Seasonal Purchases from SF RWS Among BAWSCA Members – FY 2018-19 (Table 2B) .....	2-4
Historical SF RWS Wholesale Water Purchases by BAWUA/BAWSCA Agencies (Table 2C) .....	2-5
Supplemental SF RWS Water Purchases by Participating BAWSCA Agencies (Table 2D) .....	2-6

### 3. Total Water Supply and Demand

Historical BAWSCA Water Use by Agency (Table 3A) .....	3-1
Historical Water Use Among BAWUA/BAWSCA Agencies (Table 3B) .....	3-2
Water Use by Source of Supply – FY 2018-19 (Table 3C) .....	3-5
Total Monthly Water Use – FY 2018-19 (Table 3D) .....	3-6
Demand Projections by Source – Purchases from SFPUC (Table 3E-1) .....	3-7
Demand Projections by Source – Groundwater Production (Table 3E-2) .....	3-8
Demand Projections by Source – Surface Water Production (Table 3E-3) .....	3-8
Demand Projections by Source – Recycled Water (Table 3E-4) .....	3-9
Demand Projections by Source – Other Sources (Table 3E-5) .....	3-9
Demand Projections by Source – Summary (Table 3E-6) .....	3-10

### 4. Current Water Use by Customer Class

Potable Water Use by Customer Class – FY 2018-19 (Table 4A) .....	4-3
Total Water Use by Customer Class – FY 2018-19 (Table 4B) .....	4-4
Number of Customer Accounts – FY 2018-19 (Table 4C) .....	4-5

## 5. Climatological Data

Climatological Data (Table 5A) .....	5-1
--------------------------------------	-----

## 6. Service Area Populations

BAWSCA Service Area Populations (Table 6).....	6-1
--	-----

## 7. Current Water Use Per Capita

Residential Per Capita Consumption and Single-Family Average Monthly Use Among BAWSCA Members – FY 2018-19 (Table 7A) .....	7-3
Gross Per Capita Consumption and Single-Family Average Monthly Use Among BAWSCA Members – FY 2018-19 (Table 7B) .....	7-4
Historical BAWUA/BAWSCA Per Capita Data (Table 7C).....	7-5

## 8. Current Residential Water Bills and Wholesale Water Rates

Single-Family Water Bills Based on Average Monthly Use for FY 2018-19, Using Rates in Effect for FY 2018-19 (Table 8A) .....	8-3
Single Family Water Bills Based on Average Monthly Use for FY 2018-19, Using Rates in Effect for FY 2017-18; Inclusive of Service Charge (Table 8B) .....	8-4
Past and Current SF RWS Wholesale Water Rates and Bond Surcharges for FY 2018-19, Using Rates in Effect for FY 2018-19 (Table 8C) .....	8-7

## 9. Agency Profiles

Alameda County Water District.....	9-3
City of Brisbane / Guadalupe Valley Municipal Improvement District .....	9-6
City of Burlingame.....	9-8
California Water Service - Bear Gulch District .....	9-10
California Water Service - Mid-Peninsula District .....	9-13
California Water Service - South San Francisco District.....	9-16
Coastside County Water District.....	9-19
City of Daly City .....	9-22
City of East Palo Alto.....	9-26
Estero Municipal Improvement District.....	9-28
City of Hayward.....	9-30
Town of Hillsborough.....	9-33
City of Menlo Park .....	9-36
Mid-Peninsula Water District.....	9-38
City of Millbrae.....	9-40
City of Milpitas.....	9-42
City of Mountain View .....	9-45
North Coast County Water District .....	9-48
City of Palo Alto.....	9-50
Purissima Hills Water District .....	9-53
City of Redwood City.....	9-55
City of San Bruno.....	9-57
San Jose Municipal Water System - North.....	9-60
City of Santa Clara.....	9-62
Stanford University .....	9-65
City of Sunnyvale.....	9-68

Westborough County Water District ..... 9-71

**LIST OF CHARTS AND GRAPHS**

Past and Current Purchases from SF RWS (Figure 2A) ..... 2-1

Monthly/Seasonal Purchases from SF RWS  
 by BAWSCA Members – FY 2018-19 (Figure 2B) ..... 2-3

Water Use by Source of Supply – FY 2018-19 (Figure 3C) ..... 3-3

Total Monthly Water Use for All BAWSCA Agencies – FY 2018-19 (Figure 3D) ..... 3-4

Demand Projections by Source – FY 2040-41 (Figure 3E) ..... 3-10

Potable Water Use by Customer Class – FY 2018-19 (Figure 4A) ..... 4-1

Total Water Use by Customer Class – FY 2018-19 (Figure 4B)..... 4-1

Potable Water Use by Sector for BAWSCA Agencies – FY 2018-19 (Figure 4C)..... 4-2

Total Annual Precipitation (Figure 5A) ..... 5-2

Average Maximum Daily Temperature (Figure 5B)..... 5-2

Residential Per Capita Consumption – FY 2018-19 (Figure 7A-1)..... 7-1

Residential Per Capita Consumption Distributed  
 by Percentage of Population – FY 2018-19 (Figure 7A-2) ..... 7-1

Gross Per Capita Consumption – FY 2018-19 (Figure 7B)..... 7-2

Historical BAWSCA/BAWUA Per Capita Consumption – 1975-76 to Present (Figure 7C) ..... 7-2

Single Family Water Bills Based on Average Monthly Use  
 Using Rates in Effect for FY 2018-19 (Figure 8A) ..... 8-1

Past and Current SF RWS Wholesale Water Rates and  
 BAWSCA Bond Surcharges (Figure 8A)..... 8-2





# Annual Survey

FISCAL YEAR 2018-19

## 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 company 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 a united 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 751,000 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 562,000 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 517,000 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:

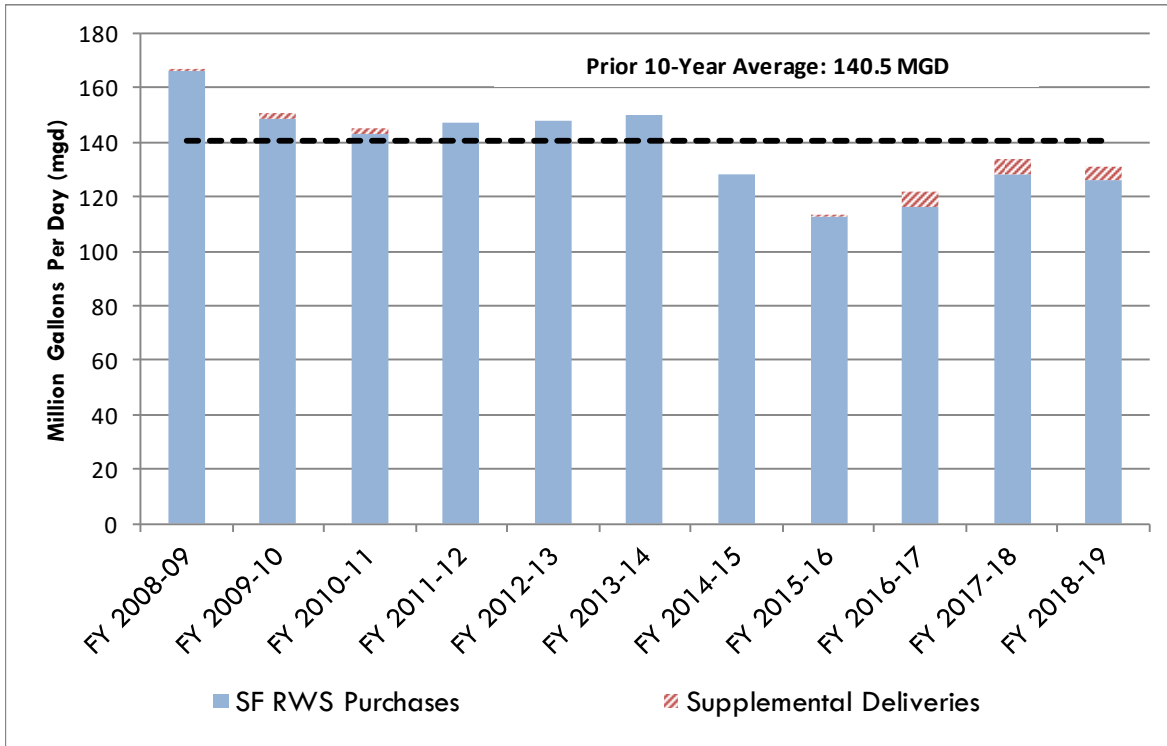
- Current water supply from each source
- Current and projected water purchases from SF RWS
- Projected water supplies and demands
- Consumption by customer class
- Current and projected population
- Per capita water use
- Single family water bills and rate structures
- BAWSCA member agency profiles

## 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 2018-19, the BAWSCA member agencies reported SF RWS purchases of 125.5 mgd, 2% lower than the total of 128.5 mgd purchased in FY 2017-18. In addition, BAWSCA member agencies reported 5.2 mgd in supplemental purchases as part of the conjunctive use program. Compared with the prior ten-year average, total purchases in FY 2018-19, including supplemental purchases were below average by 14.1 mgd. When compared to FY 2008-09, the highest year in the prior ten-year period, FY 2018-19 purchases were lower by 35.1 mgd, a difference of about 21%.

**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. In June 2019, BAWSCA notified the SFPUC that the projected BAWSCA member agency purchases in 2027-2028 is expected to be 164 mgd. In FY 2040-41, BAWSCA member agency purchases from the SF RWS are projected to reach 177 mgd.

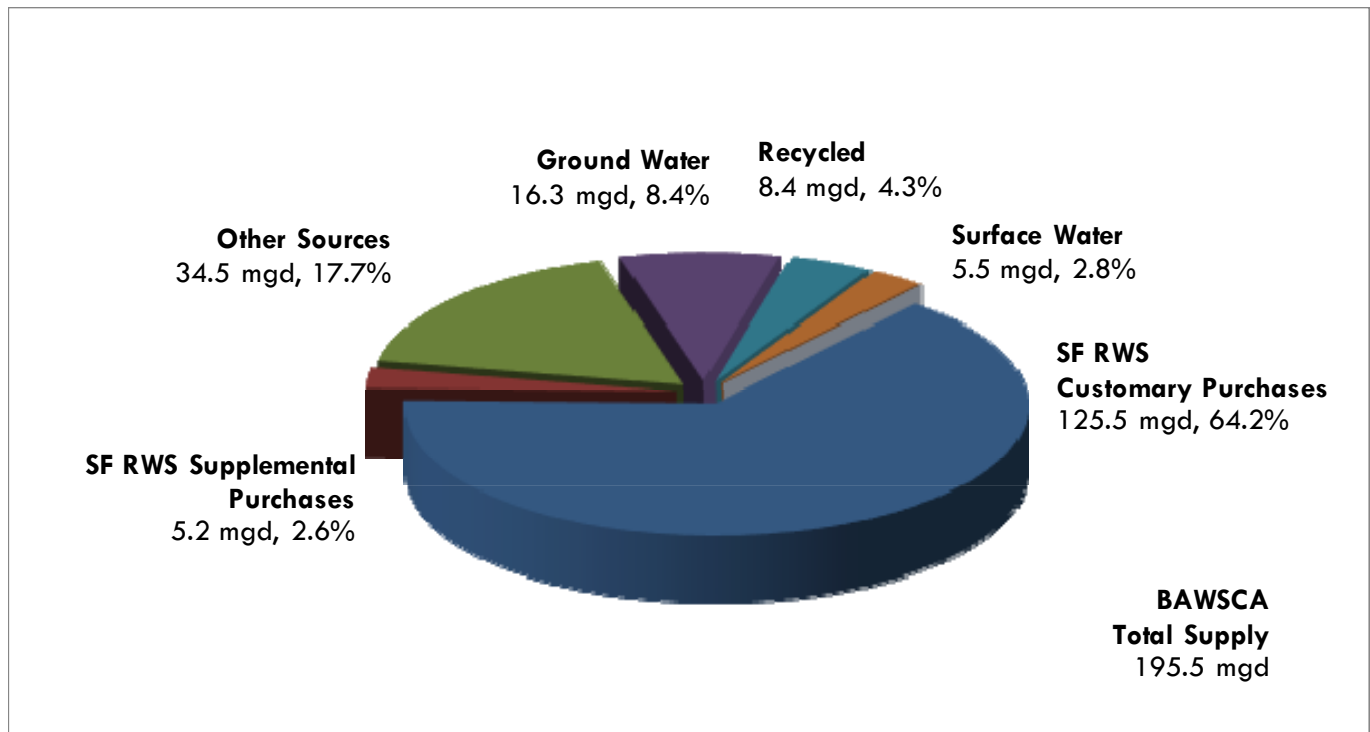
## TOTAL WATER SUPPLY AND DEMAND

### Current Water Supply by Source

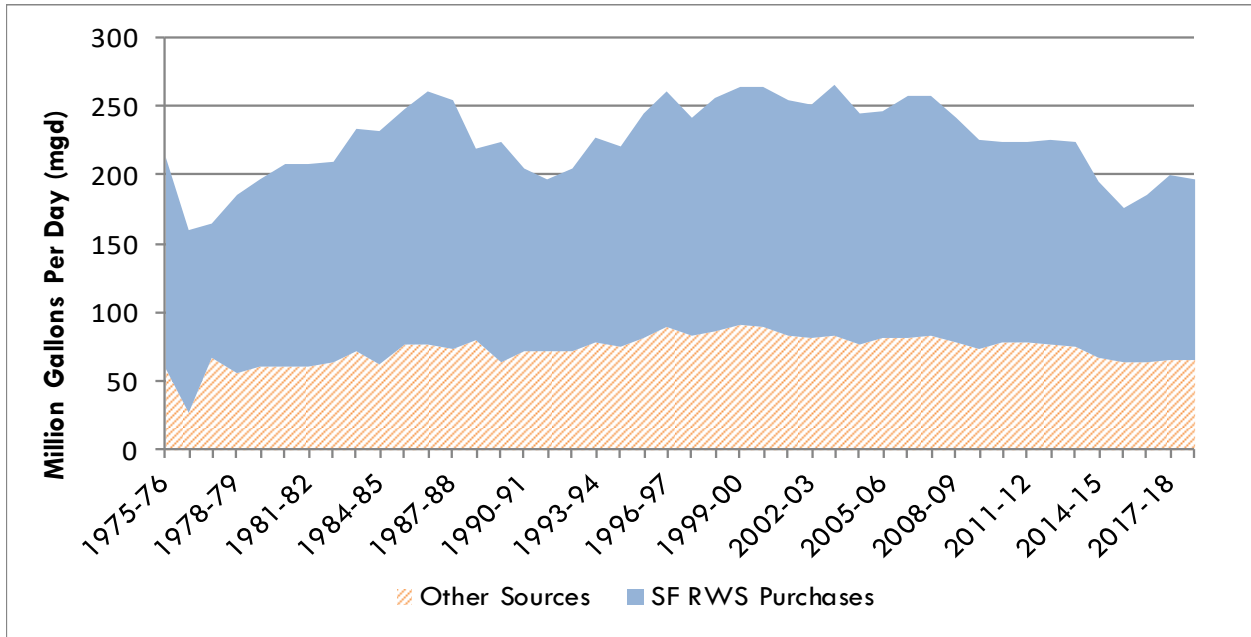
The sources of supply used by BAWSCA member agencies are very consistent, with supply breakdown by source typically varying by less than 2% from one year to the next. Of the total amount of water used by BAWSCA agencies in FY 2018-19, 66.9% came from the SF RWS and 33.1% came from other sources. These other sources included:

- Groundwater (16.3 mgd, 8.3%);
- Local surface water, primarily from ACWD’s take from Lake Del Valle (5.5 mgd, 2.8%);
- Other supplies from the Santa Clara Valley Water District, the State Water Project, and ACWD’s brackish water desalination (34.5 mgd, 17.6%); and
- Recycled water (8.4 mgd, 4.3%).

**Figure ES-2: FY 2018-19 Water Use by Source**



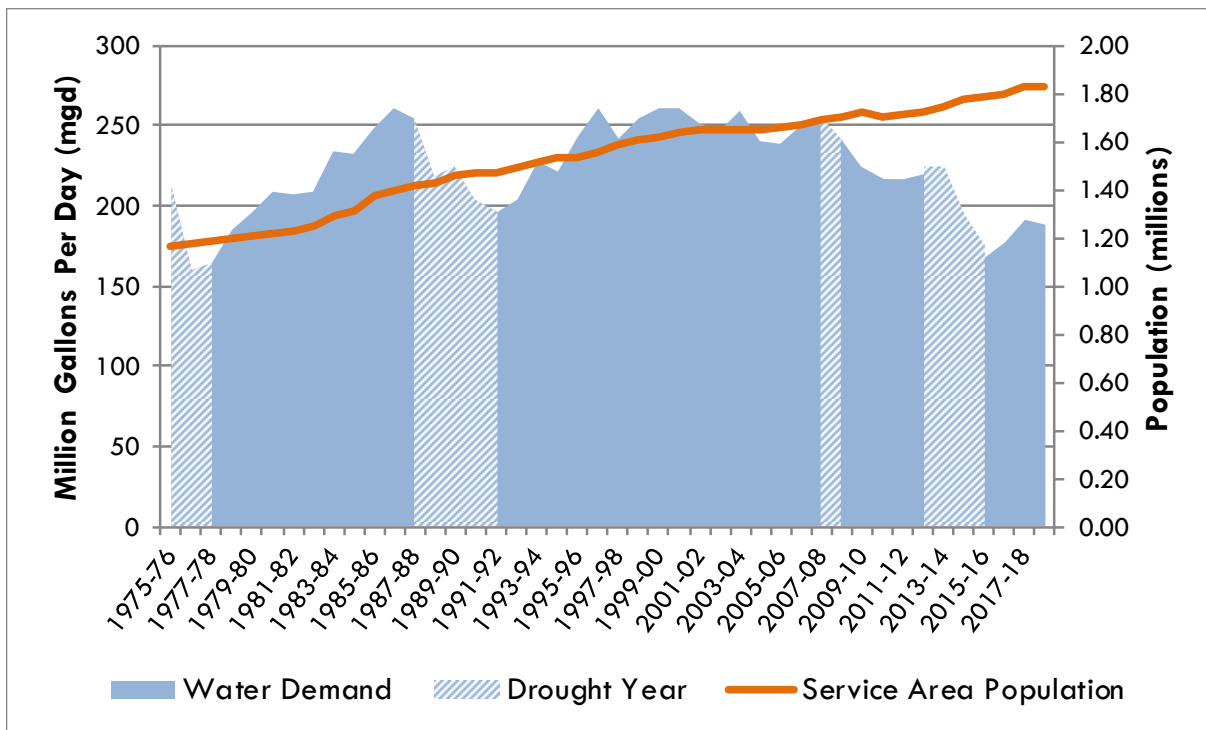
**Figure ES-3: Past and Current Water Supply**



**Current BAWSCA-Wide Total Water Demand**

For FY 2018-19, total water demand in the BAWSCA service area, including SFPUC purchases and other sources, was 195.9 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 most recent statewide drought declaration, water used in the BAWSCA service area was 13% less in FY 2018-19. In FY 2018-19, 25% less water was used in the service area compared to the peak year, FY 1986-87, despite a 32% population increase.

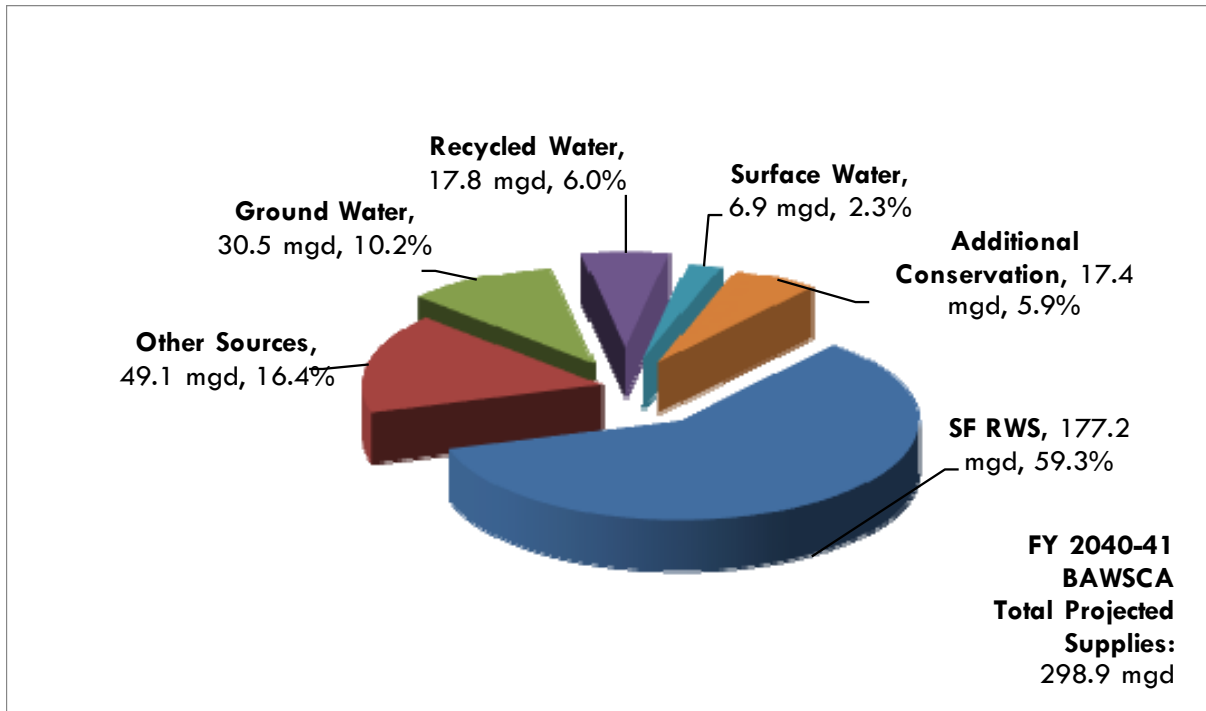
**Figure ES-4: Past and Current Population and Water Demand**



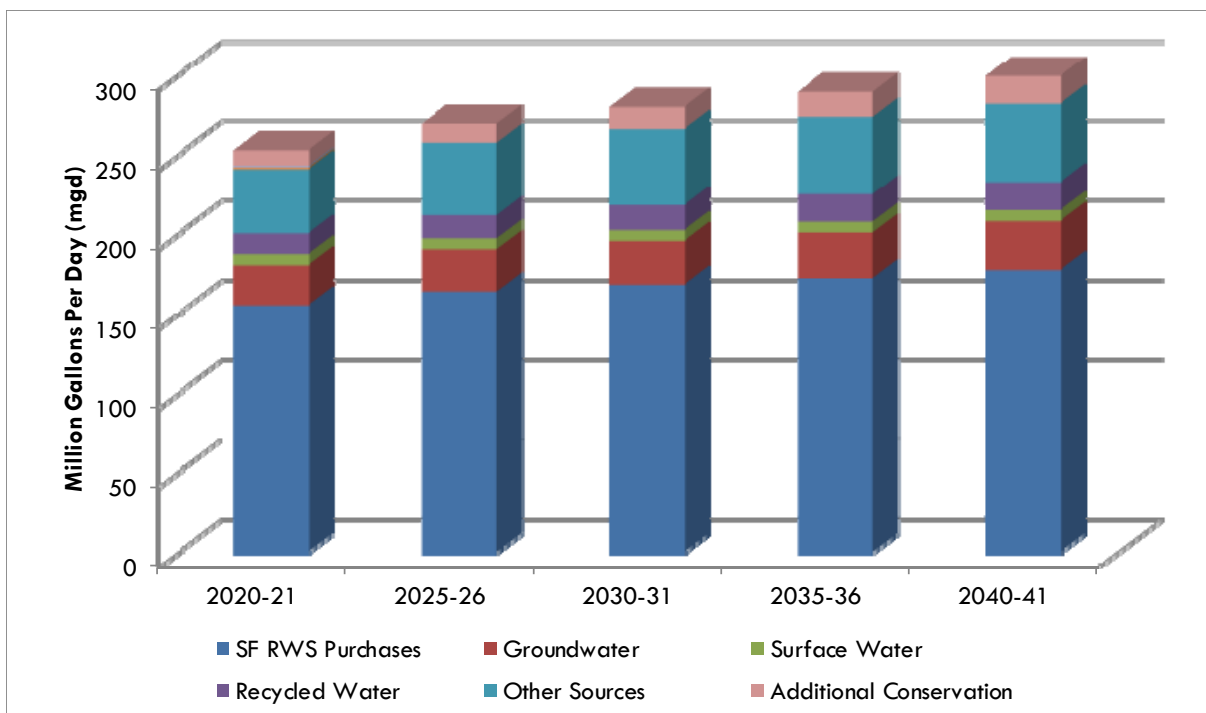
**Projected Water Supplies and Demands**

The total normal year water demands of the BAWSCA member agencies are projected to reach 298.8 mgd by FY 2040-41 (Source: FY 2018-19 Annual Survey). Of the total water demand, 17.4 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 177.2 mgd in FY 2040-41. Recycled water supplies are projected to increase to 17.8 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.

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:

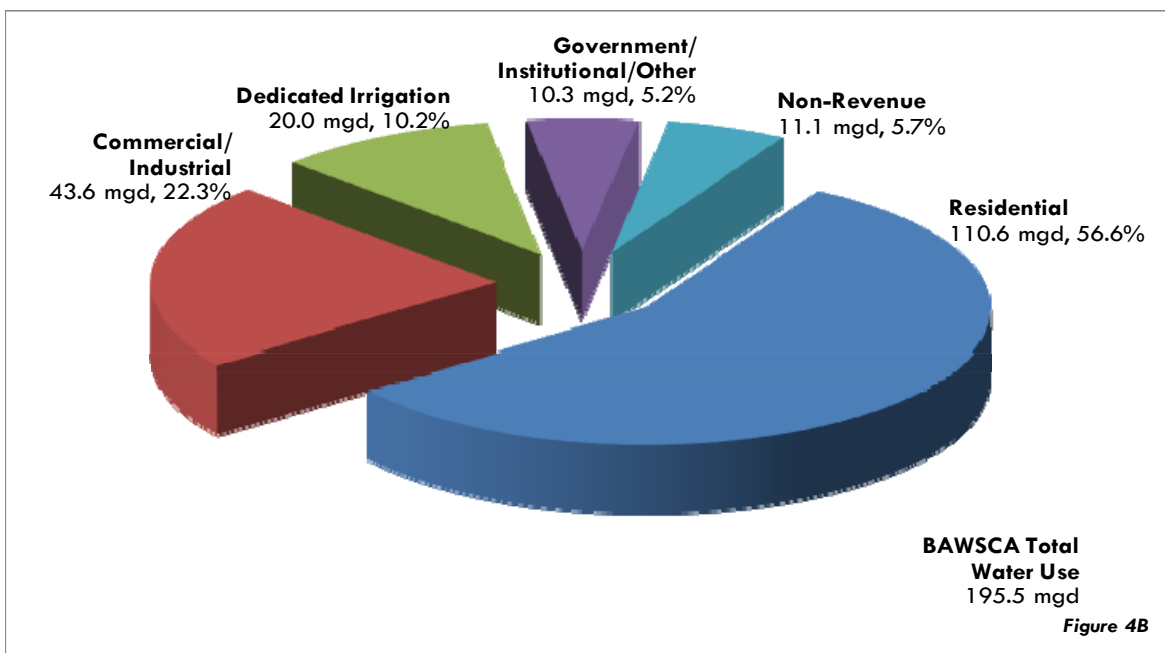
- Lead water transfer development and implementation including identifying and evaluating water storage options;
- Facilitate desalination and advanced treatment supply project partnerships and pursue outside funding for related studies;
- Support member agency-identified projects (i.e. recycled water 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 195.5 mgd consumed among BAWSCA agencies in FY 2018-19 the residential sector accounted for 56.6% (110.6 mgd); commercial and industrial customers for 22.3% (43.6 mgd); government, institutional and other customers for 5.2% (10.3 mgd); dedicated irrigation for 10.2% (20.0 mgd); and non-revenue water for 5.7% (11.1 mgd).

In FY 2018-19, there were 437,616 accounts (service connections) in the entire BAWSCA service area, 88%, or 386,171, of which were residential.

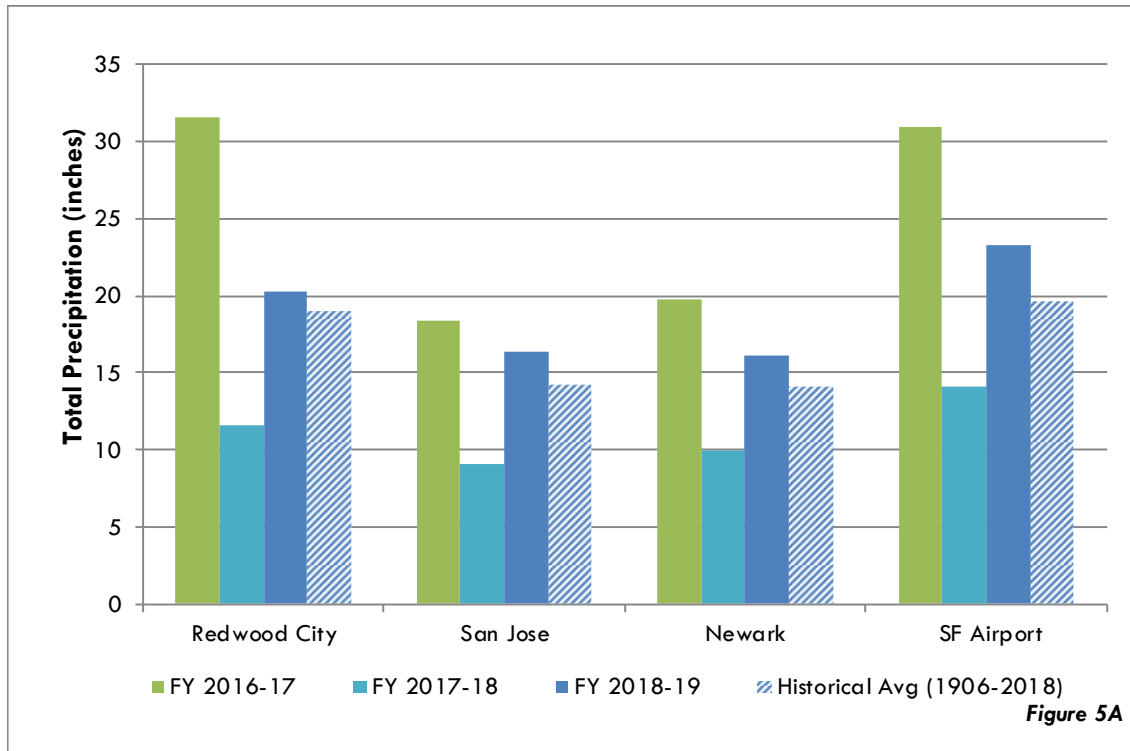
**Figure ES-7: FY 2018-19 Water Use by Customer Class**



## CLIMATE DATA

FY 2018-19 was a moderately wet year, with rainfall totals recorded at 4 representative locations in the BAWSCA service area that were, on average, 14% higher than the historical average from 1906 - 2018. In FY 2016-17 and FY 2017-18, rainfall totals recorded at these locations 50% above average and 33% below average, respectively.

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



## POPULATION AND PER CAPITA WATER USE

The population of the BAWSCA service area is estimated to have increased from 1,824,411 to 1,829,229 between FY 2017-18 and FY 2018-19. The BAWSCA service area population is projected to reach 2,235,051 by FY 2040-41.

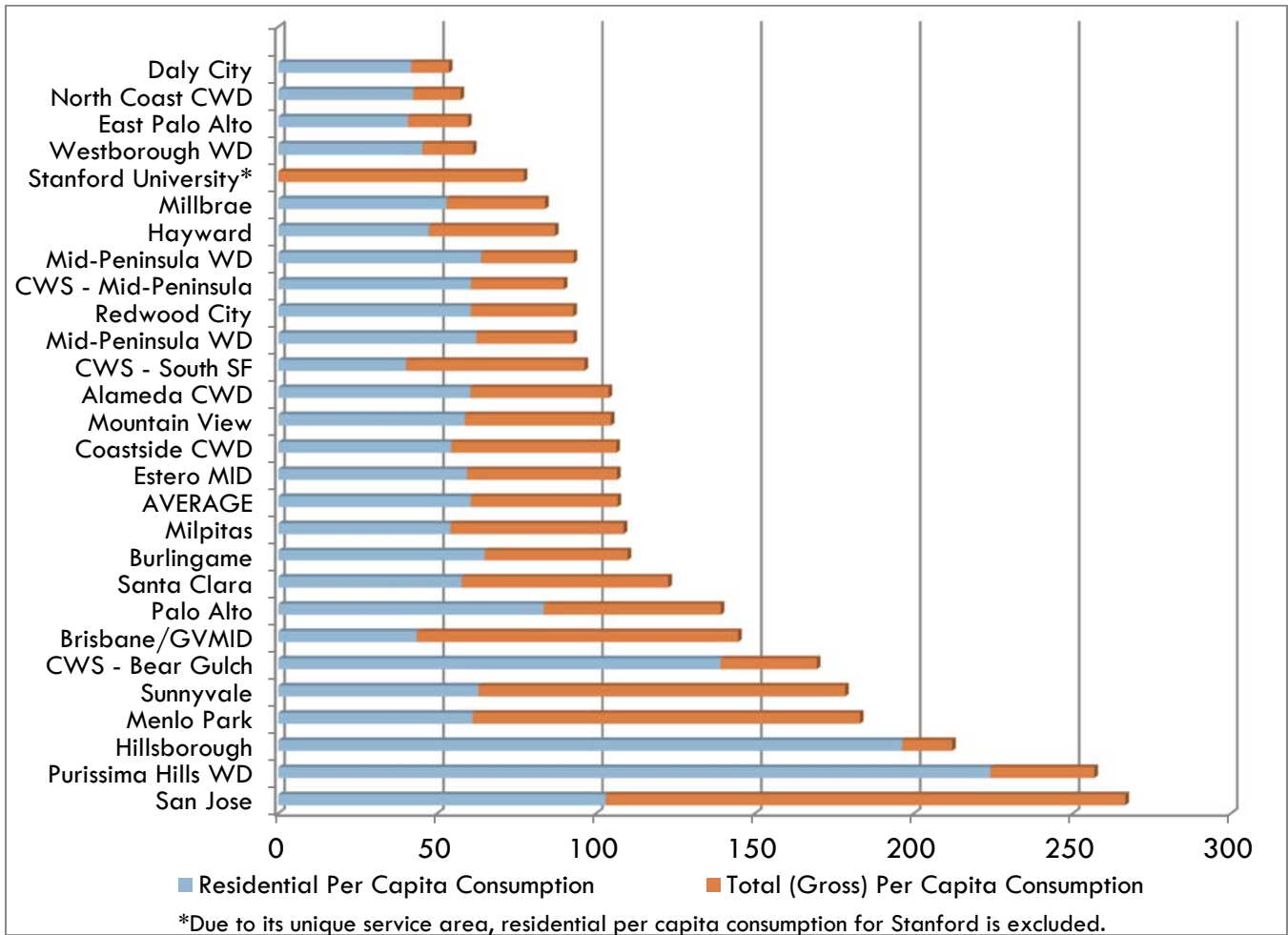
Average residential per capita consumption (excluding Stanford) in the BAWSCA service area was 60.5 gpcd in FY 2018-19, 2% less than the year before. This is 47% less than the estimated peak residential per capita consumption of 114.9 gpcd in FY 1975-76. In FY 2018-19, East Palo Alto had the lowest residential per capita consumption at 38.0 gpcd while Purissima Hills WD had the highest at 224.0 gpcd.

*In FY 2018-19, fourteen BAWSCA member agencies had residential water use of less than 60 gallons per capita per day.*

The average gross per capita consumption in the BAWSCA service area was 102.3 gpcd in FY 2018-19, 3% lower than FY 2017-18. 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**

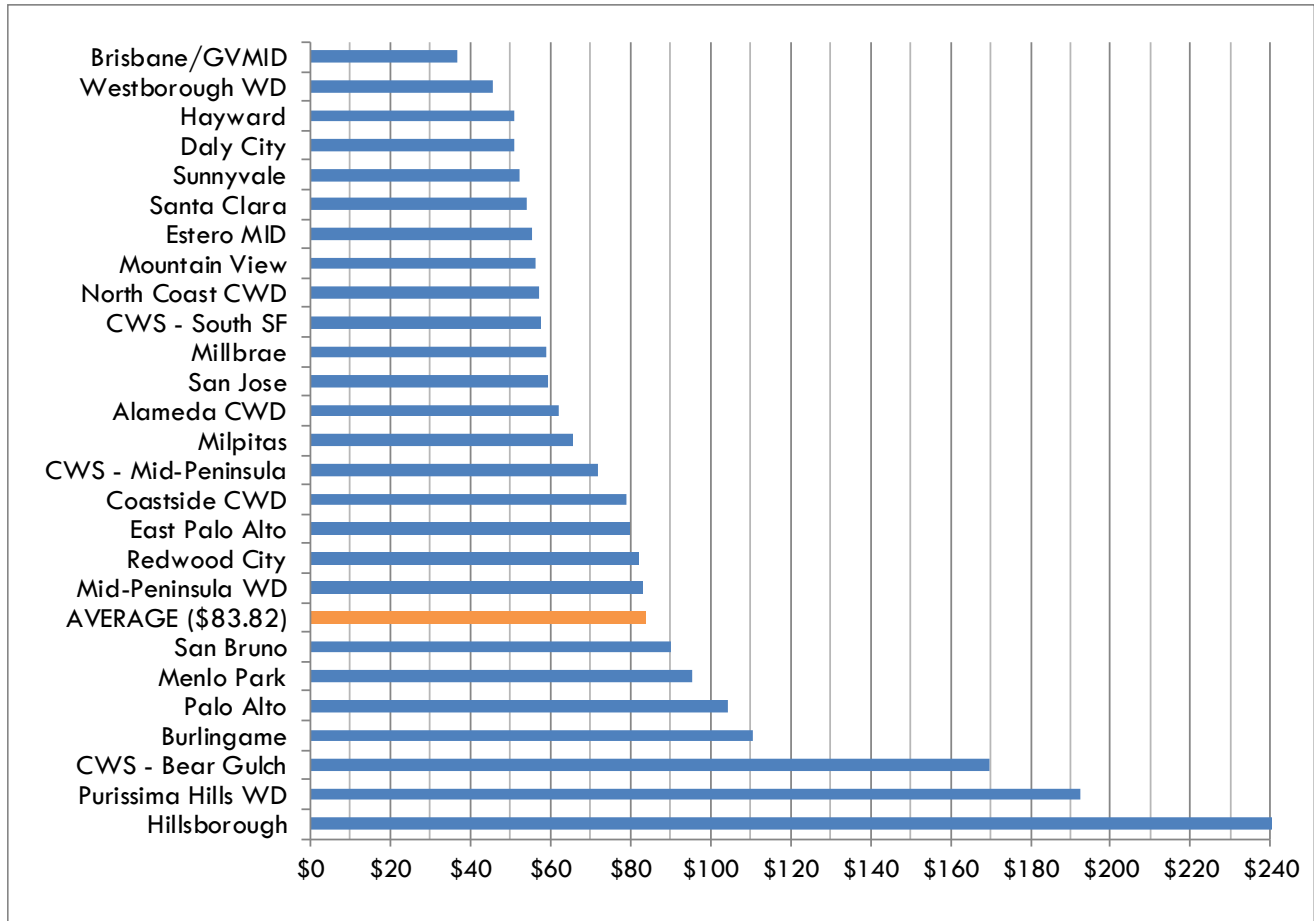


## SINGLE FAMILY WATER AND RATE STRUCTURES

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 \$36.91 for 4.4 units in the Brisbane/GVMID service area to a high of \$259.84 for 20.6 units in Hillsborough. The average single-family water bill among the BAWSCA member agencies, inclusive of the service charge, was \$83.82.

Six BAWSCA member agencies (Alameda County Water District, East Palo Alto, Millbrae, Milpitas, Santa Clara, and Westborough Water District) had a uniform rate structure in FY 2018-19, 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

155 Bovet Rd., Suite 650  
San Mateo, CA 94402

Ph. (650) 349-3000 Fax: (650) 349-8395

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, 1 university, and 1 private water company 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 (AB 1823) 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 4,587 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 356,000 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, 67% of all water delivered by the BAWSCA member agencies came from the SF RWS in FY 2018-19.

## 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 2018-19.

## 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 2018-19, residential per capita water use was similar to the prior year. Per capita use in the wholesale service area ranged from a low of 38 gallons per capita per day (gpcd) to a high of 224 gpcd. Average residential use is 61 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 2018-19 budget was \$3.90M, 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 2018-19**

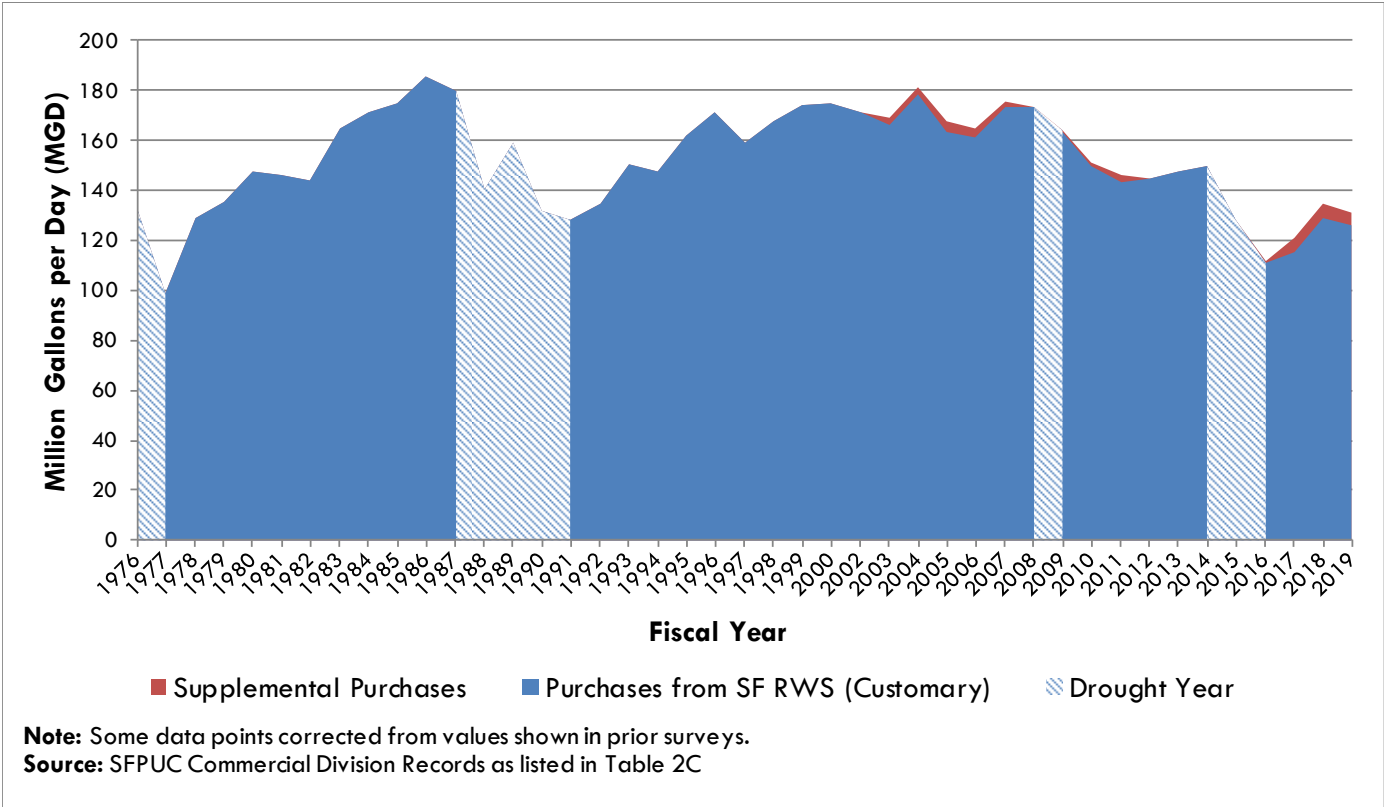
	Service Population	Water Purchased / Produced (mgd)		Communities Served (all or portions of)
		SF RWS*	Total	
<b>San Mateo County</b>				
City of Brisbane / Guadalupe Valley Municipal Improvement District	4,587	0.66	0.66	Brisbane, nearby unincorporated areas, and GVMID, an industrial park and small residential community within the City of Brisbane
City of Burlingame	31,109	3.42	3.72	City of Burlingame, and nearby unincorporated areas
California Water Service Company Bear Gulch District, Mid-Peninsula District, South San Francisco District	262,140	27.79	28.63	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
Coastside County Water District	16,811	1.12	1.79	Half Moon Bay, Princeton by the Sea, Miramar, and El Granada
City of Daly City	109,139	5.86	6.24	Daly City and nearby unincorporated areas
City of East Palo Alto	26,181	1.56	1.56	City of East Palo Alto, Menlo Park, and nearby unincorporated areas
Estero Municipal Improvement District	37,861	4.04	4.04	Foster City and small parts of San Mateo
Town of Hillsborough	10,869	2.31	2.31	Hillsborough and nearby unincorporated areas
City of Menlo Park	17,648	2.84	2.84	Menlo Park west of Altschul Avenue and east of El Camino Real
Mid-Peninsula Water District	26,924	2.50	2.50	Belmont, San Carlos, and nearby unincorporated areas
City of Millbrae	23,168	1.95	1.95	Millbrae and nearby unincorporated areas
North Coast County Water District	40,000	2.29	2.34	Pacifica and nearby unincorporated areas
City of Redwood City	87,023	8.08	8.70	Redwood City, parts of San Carlos and Woodside, and nearby unincorporated areas
City of San Bruno	44,409	2.49	2.82	San Bruno and nearby unincorporated areas
Westborough Water District	12,703	0.78	0.78	Parts of South San Francisco, Daly City, and nearby unincorporated areas
<b>Subtotal</b>	<b>750,572</b>	<b>67.69</b>	<b>70.87</b>	
<b>Santa Clara County</b>				
City of Milpitas	74,865	5.30	9.14	Milpitas and portions of San Jose
City of Mountain View	79,492	7.21	8.65	Mountain View and nearby unincorporated areas
City of Palo Alto	67,709	9.43	10.18	Palo Alto and nearby unincorporated areas
Purissima Hills Water District	6,150	1.58	1.58	Los Altos Hills, parts of Los Altos, and nearby unincorporated areas
San Jose Municipal Water District	16,032	4.27	5.15	North San Jose/Alviso and nearby unincorporated areas
City of Santa Clara	129,604	3.02	19.52	Santa Clara and nearby unincorporated areas
Stanford University	32,578	1.43	2.52	Stanford University
City of Sunnyvale	155,567	9.01	16.88	Sunnyvale and nearby unincorporated areas
<b>Subtotal</b>	<b>561,997</b>	<b>41.25</b>	<b>73.62</b>	
<b>Alameda County</b>				
Alameda County Water District	356,160	7.78	37.02	Union City, Newark, Fremont and nearby unincorporated areas
City of Hayward	160,500	13.98	13.98	Hayward and nearby unincorporated areas
<b>Subtotal</b>	<b>516,660</b>	<b>21.76</b>	<b>51.00</b>	
<b>Total All Agencies</b>	<b>1,829,229</b>	<b>130.70</b>	<b>195.49</b>	
*Includes supplemental deliveries				
<b>Source: BAWSCA FY 2018-19 Annual Survey</b>				



## 2. Past and Current Purchases from SF RWS



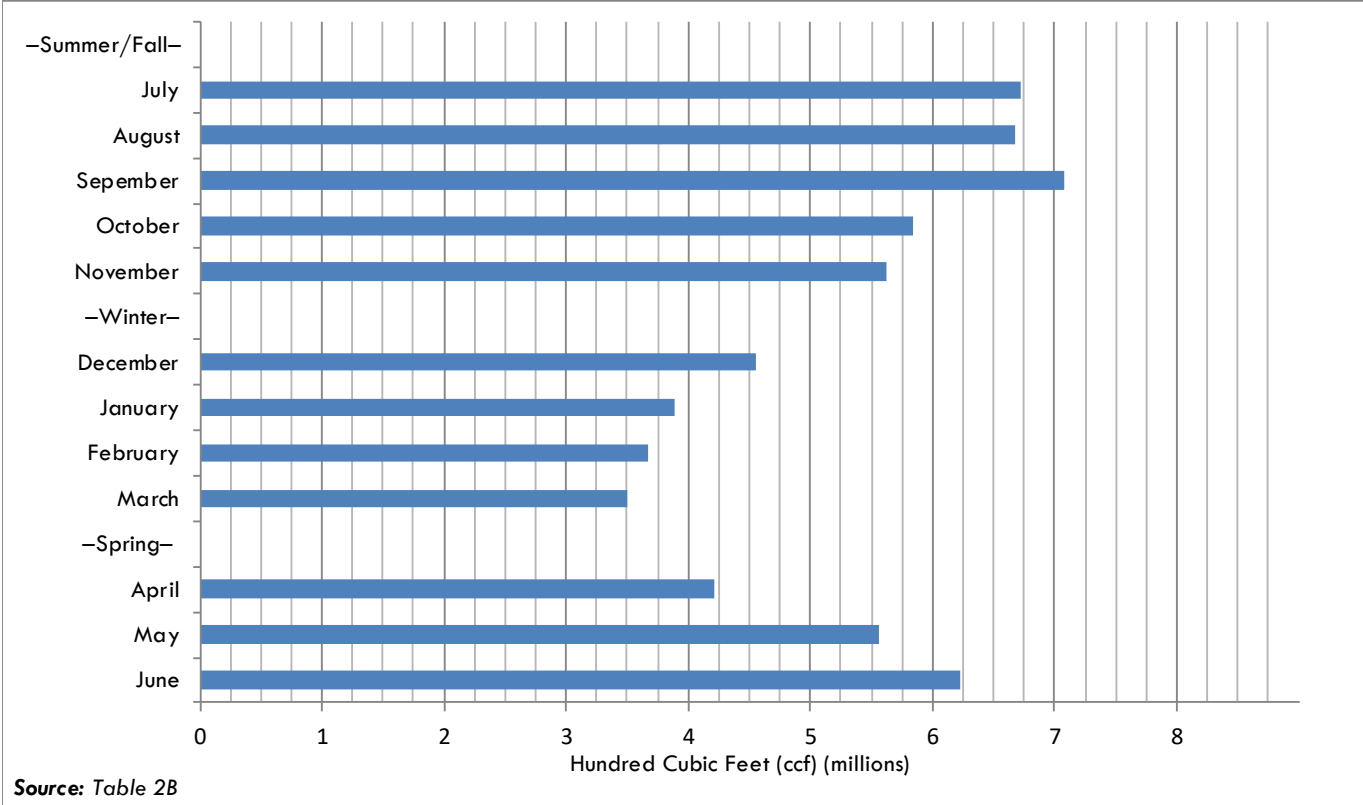
Figure 2A: Past and Current Purchases from SF RWS



**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 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	Actual FY 2017-18	Actual FY 2018-19	mgd Equiv	2018-19/	2018-19
																	% Change	Purchases as % of Guarantee
<b>San Mateo County</b>																		
* Brisbane **	224,435	0.46	171,507	0.35	179,743	123,803	275,934	280,650	287,290	302,776	280,029	257,414	294,756	334,217	323,917	0.66	-3.1	67.6
* Burlingame	2,553,753	5.23	2,531,707	5.19	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	1,695,956	1,669,182	3.42	-1.6	65.4
California Water Service *	17,320,807	35.50	17,393,987	35.65	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	13,457,975	12,894,379	26.42	-4.2	74.4
Coastside CWD	1,061,453	2.18	600,257	1.23	977,849	887,675	806,110	832,099	885,896	940,214	727,298	575,225	515,655	464,037	547,861	1.12	18.1	51.6
Daly City	2,094,386	4.29	2,264,684	4.64	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	1,717,837	1,804,183	3.70	5.0	86.1
* East Palo Alto	1,689,714	3.46	1,041,989	2.14	938,045	842,883	863,282	907,662	1,008,253	723,320	768,310	690,728	734,911	772,528	763,315	1.56	-1.2	45.2
* Estero MID	2,878,807	5.90	2,854,051	5.85	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	2,068,753	1,969,663	4.04	-4.8	68.4
* Guadalupe Valley MID	254,436	0.52	155,074	0.32	122,888	152,798					Included with Brisbane							
* Hillsborough	1,995,644	4.09	1,996,150	4.09	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	1,234,547	1,124,778	2.31	-8.9	56.4
Los Trancos			34,848	0.07														
* Menlo Park	2,174,231	4.46	1,958,458	4.01	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	1,393,425	1,383,605	2.84	-0.7	63.6
* Mid-Peninsula WD	1,988,707	3.89	1,888,074	3.87	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	1,221,454	1,220,573	2.50	-0.1	64.3
* Millbrae	1,538,120	3.15	1,528,426	3.13	1,168,008	1,094,867	1,075,971	1,034,254	1,113,147	1,134,741	991,049	899,785	918,695	992,853	949,277	1.95	-4.4	61.7
* North Coast CWD	1,872,928	3.84	1,618,649	3.32	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	1,169,151	1,119,762	2.29	-4.2	59.8
* Redwood City	5,333,115	10.93	5,253,772	10.77	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	4,130,668	3,943,761	8.08	-4.5	73.9
San Bruno	1,583,899	3.25	1,748,600	3.58	925,521	735,442	775,910	1,017,925	946,503	779,582	584,392	637,586	383,693	419,589	420,116	0.86	0.1	26.5
Skyline			62,726	0.13							Included with CWS-Bear Gulch							
* Westborough WD	644,172	1.32	585,151	1.20	485,493	394,878	408,487	440,796	441,233	433,980	377,034	390,753	356,722	383,996	379,833	0.78	-1.1	59.0
<b>Subtotal</b>	<b>45,118,607</b>	<b>92.46</b>	<b>43,688,110</b>	<b>89.53</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>31,456,987</b>	<b>30,514,206</b>	<b>62.53</b>	<b>-3.0</b>	<b>67.6</b>
<b>Santa Clara County</b>																		
Milpitas	4,504,533	9.23	4,370,757	8.96	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	2,538,687	2,585,031	5.30	1.8	57.4
Mountain View	6,079,714	12.46	6,435,554	13.19	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	3,617,700	3,519,587	7.21	-2.7	57.9
* Palo Alto	8,087,730	16.57	8,009,767	16.41	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	4,859,576	4,600,990	9.43	-5.3	56.9
* Purissima Hills	792,832	1.62	755,077	1.55	980,987	854,854	839,360	899,221	972,733	982,100	803,313	640,369	689,261	814,270	770,703	1.58	-5.4	97.2
San Jose	0	0.00	1,541,153	3.16	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	2,208,892	2,084,721	4.27	-5.6	n/a
Santa Clara	0	0.00	2,429,766	4.98	1,307,380	1,105,658	1,055,675	910,029	1,118,315	1,012,567	914,572	1,135,829	970,987	1,039,840	1,474,198	3.02	41.8	n/a
Stanford	1,479,764	3.03	1,485,396	3.04	1,045,886	1,043,864	1,035,726	1,051,794	1,024,012	1,024,277	923,813	679,394	695,088	725,276	697,159	1.43	-3.9	47.1
Sunnyvale	6,138,122	12.58	7,228,076	14.81	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	4,435,240	4,394,289	9.01	-0.9	71.6
<b>Subtotal</b>	<b>27,082,695</b>	<b>55.50</b>	<b>32,255,546</b>	<b>66.10</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>20,239,481</b>	<b>20,126,678</b>	<b>41.25</b>	<b>-0.6</b>	<b>74.3</b>
<b>Alameda County</b>																		
Alameda CWD	6,714,439	13.76	6,039,273	12.38	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	3,716,845	3,798,529	7.78	2.2	56.6
* Hayward 1	6,821,848	13.98	8,504,158	17.43	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	7,101,954	6,821,848	13.98	-3.9	100.0
Residual 1	4,048,507	8.30																
<b>Subtotal</b>	<b>17,584,794</b>	<b>36.04</b>	<b>14,543,431</b>	<b>29.80</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>10,818,799</b>	<b>10,620,377</b>	<b>21.76</b>	<b>-1.8</b>	<b>60.4</b>
<b>Total</b>	<b>89,786,096</b>	<b>184.00</b>	<b>90,487,087</b>	<b>185.44</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>62,515,266</b>	<b>61,261,261</b>	<b>125.54</b>	<b>-2.0</b>	<b>68.2</b>
<b>mgd equiv</b>	<b>184.00</b>		<b>185.44</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>128.11</b>	<b>125.54</b>		<b>-2.0</b>	
<b>Total w/o SC&amp;SJ</b>	<b>89,786,096</b>		<b>86,516,168</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>59,266,535</b>	<b>57,702,342</b>	<b>118.25</b>	<b>-2.6</b>	<b>64.3</b>
<b>mgd equiv</b>	<b>184.00</b>		<b>177.30</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>	<b>121.46</b>	<b>118.25</b>		<b>-2.6</b>	
* Agencies receiving 100% of their supply from the SF RWS (16 total), ** 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 2017-18). 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.																		
Note: Beginning in 2002, Daly City, CWS-South San Francisco, and San Bruno began participating in a joint conveyance 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. In July 2018, Palo Alto transferred 0.5 mgd of lsg to East Palo Alto. The Supply Guarantee in the above table reflects these transfers.																		
Source: BAWSCA Annual Surveys																		

Figure 2B: Monthly/Seasonal Purchases from SF RWS among BAWSCA Members – FY 2018-19



**Table 2B: Monthly/Seasonal Purchases from SF RWS Among BAWSCA Members – FY 2018-19 (in ccf)  
SFPUC Commercial Division Records Data<sup>1</sup>**

Member	Summer/Fall						Winter				Spring			Year Total mgd			
	July	Aug	Sept	Oct	Nov	Total	Dec	Jan	Feb	March	Total	April	May		June	Total	
* Alameda CWD	338,532	277,102	291,944	289,847	199,035	<b>1,396,461</b>	190,974	259,159	218,812	240,850	<b>909,794</b>	490,758	583,658	364,495	<b>1,438,911</b>	3,745,166	7.68
Brisbane	19,159	20,243	21,157	15,687	17,677	<b>93,923</b>	19,173	24,599	14,318	8,815	<b>66,905</b>	9,347	11,886	16,354	<b>37,587</b>	198,415	0.41
Burlingame	157,715	213,672	186,859	155,074	145,235	<b>858,555</b>	132,614	107,630	103,031	104,571	<b>447,846</b>	102,587	136,659	152,697	<b>391,943</b>	1,698,344	3.48
* CWS - Bear Gulch	648,827	644,545	681,537	486,696	484,972	<b>2,946,578</b>	270,811	199,682	117,833	119,346	<b>707,673</b>	102,684	372,882	486,475	<b>962,042</b>	4,616,293	9.46
CWS - Mid Peninsula	607,818	614,237	634,937	569,699	513,557	<b>2,940,248</b>	457,844	362,705	382,067	349,288	<b>1,551,905</b>	357,986	509,160	563,167	<b>1,430,313</b>	5,922,466	12.14
* CWS - South SF 2	283,485	289,305	283,525	249,657	275,005	<b>1,380,976</b>	231,231	224,910	199,727	198,516	<b>854,384</b>	202,587	250,733	249,737	<b>703,057</b>	2,938,416	6.02
* Coastside CWD	71,662	76,267	95,313	91,516	73,180	<b>407,938</b>	58,556	11,340	7,014	16,165	<b>93,075</b>	19,734	15,478	27,258	<b>62,470</b>	563,483	1.15
* Daly City 2	232,096	232,177	271,087	213,384	236,753	<b>1,185,497</b>	244,715	217,355	241,168	210,827	<b>914,066</b>	213,852	227,756	259,506	<b>701,114</b>	2,800,676	5.74
East Palo Alto	74,269	70,132	74,745	64,032	67,467	<b>350,645</b>	52,179	52,455	54,736	48,562	<b>207,931</b>	51,696	63,260	69,992	<b>184,948</b>	743,524	1.52
Estero MID	218,327	216,847	232,827	183,704	169,263	<b>1,020,968</b>	142,823	107,579	112,578	100,959	<b>463,939</b>	106,031	176,504	199,357	<b>481,892</b>	1,966,799	4.03
Guadalupe Valley MID	13,878	15,091	17,113	11,342	12,824	<b>70,248</b>	10,160	7,481	7,535	6,694	<b>31,870</b>	7,101	9,506	12,151	<b>28,758</b>	130,876	0.27
Hayward	756,241	697,990	685,326	687,683	589,222	<b>3,416,462</b>	453,231	494,707	426,098	409,549	<b>1,783,585</b>	444,243	595,525	582,033	<b>1,621,801</b>	6,821,848	13.98
Hillsborough	156,820	155,231	166,603	129,300	112,403	<b>720,357</b>	70,336	38,186	32,639	31,312	<b>172,474</b>	32,457	91,511	108,371	<b>232,339</b>	1,125,169	2.31
Menlo Park	168,471	158,315	169,789	134,250	131,447	<b>762,272</b>	75,379	65,804	73,250	62,368	<b>276,800</b>	80,039	120,862	143,631	<b>344,532</b>	1,383,604	2.84
Mid-Peninsula WD	135,274	124,217	136,218	111,614	109,879	<b>617,202</b>	79,586	80,162	72,961	74,754	<b>307,463</b>	77,930	108,475	106,933	<b>293,338</b>	1,218,003	2.50
Millbrae	100,035	98,677	107,724	87,114	80,209	<b>473,758</b>	76,383	65,485	59,737	61,941	<b>263,545</b>	58,062	73,133	80,777	<b>211,973</b>	949,276	1.95
* Milpitas	244,425	261,686	286,394	213,735	220,629	<b>1,226,869</b>	203,422	154,240	149,989	147,144	<b>654,795</b>	162,671	178,832	281,225	<b>622,728</b>	2,504,392	5.13
* Mountain View	388,926	391,750	423,666	320,448	333,775	<b>1,858,565</b>	284,297	195,743	200,977	190,326	<b>871,343</b>	213,742	265,697	342,160	<b>821,599</b>	3,551,507	7.28
* North Coast CWD	116,083	99,316	117,358	95,220	93,952	<b>521,929</b>	86,455	85,255	82,098	79,081	<b>332,889</b>	84,076	89,723	87,453	<b>261,252</b>	1,116,070	2.29
Palo Alto	527,303	509,391	540,522	446,791	439,513	<b>2,463,520</b>	261,237	242,512	250,148	221,017	<b>974,914</b>	258,786	432,743	471,024	<b>1,162,553</b>	4,600,987	9.43
Purissima Hills WD	102,390	105,882	119,622	84,345	82,512	<b>494,752</b>	62,695	27,023	22,868	21,739	<b>134,325</b>	25,201	50,786	76,325	<b>152,312</b>	781,388	1.60
Redwood City	445,552	406,522	439,884	336,758	325,062	<b>1,953,778</b>	260,569	261,632	233,560	239,637	<b>995,398</b>	274,864	357,649	363,651	<b>996,164</b>	3,945,340	8.09
* San Bruno 2	129,285	119,235	136,866	119,224	97,587	<b>602,198</b>	104,662	99,365	94,901	86,333	<b>385,261</b>	94,926	102,297	116,715	<b>313,938</b>	1,301,397	2.67
* San Jose MWWS-North	210,782	214,576	243,287	180,279	196,192	<b>1,045,116</b>	179,018	117,954	133,874	118,606	<b>549,452</b>	139,276	162,123	208,485	<b>509,884</b>	2,104,452	4.31
* Santa Clara	129,353	146,640	163,407	127,724	133,486	<b>700,610</b>	120,666	110,168	104,127	94,696	<b>429,657</b>	106,697	108,117	126,134	<b>340,948</b>	1,471,215	3.01
* Stanford University	74,708	71,908	75,980	72,034	64,097	<b>358,727</b>	42,196	33,676	40,637	42,562	<b>159,070</b>	41,611	66,310	71,440	<b>179,361</b>	697,158	1.43
* Sunnyvale	331,324	406,334	442,753	329,846	382,220	<b>1,892,477</b>	350,731	200,508	215,234	194,138	<b>960,611</b>	431,439	372,316	624,589	<b>1,428,344</b>	4,281,432	8.77
Westborough WD	35,798	36,851	35,542	31,958	33,714	<b>173,863</b>	34,624	35,286	22,640	27,520	<b>120,070</b>	25,640	30,596	35,945	<b>92,181</b>	386,114	0.79
<b>Totals</b>	<b>6,718,538</b>	<b>6,674,139</b>	<b>7,081,985</b>	<b>5,838,961</b>	<b>5,620,869</b>	<b>31,934,491</b>	<b>4,556,568</b>	<b>3,882,601</b>	<b>3,674,556</b>	<b>3,507,316</b>	<b>15,621,040</b>	<b>4,216,021</b>	<b>5,564,178</b>	<b>6,228,079</b>	<b>16,008,279</b>	<b>63,563,810</b>	<b>130.26</b>

Seasonal Comparisons		Summer/Fall		Winter		Spring		Year		
		2008-09	42,129,812	2008-09	18,732,019	2008-09	19,172,178	2008-09	80,034,009	164.01
		2009-10	39,394,295	2009-10	18,057,011	2009-10	16,469,283	2009-10	73,920,589	151.49
		2010-11	38,044,328	2010-11	16,817,330	2010-11	16,303,549	2010-11	71,165,207	145.84
		2011-12	34,889,999	2011-12	18,786,621	2011-12	16,953,589	2011-12	70,630,209	144.74
		2012-13	35,927,152	2012-13	17,236,235	2012-13	19,027,049	2012-13	72,190,436	147.94
		2013-14	36,602,803	2013-14	18,958,782	2013-14	17,488,648	2013-14	73,050,233	149.70
		2014-15	31,404,179	2014-15	16,571,143	2014-15	14,502,045	2014-15	62,477,367	128.04
		2015-16	25,993,686	2015-16	14,369,236	2015-16	14,124,948	2015-16	54,487,870	111.66
		2016-17	28,843,372	2016-17	14,458,909	2016-17	15,679,219	2016-17	58,981,500	120.87
		2017-18	32,895,226	2017-18	16,837,505	2017-18	15,914,209	2017-18	65,646,941	134.53
		2018-19	31,934,491	2018-19	15,621,040	2018-19	16,008,279	2018-19	63,563,810	130.26
	<b>Since 1983-84</b>	<b>Record Highs:</b>	2003-04	45,402,020	1987-88	21,979,000	1986-87	25,083,000	1986-87	185.31
		<b>Record Lows:</b>	2015-16	25,993,686	1983-84	13,429,000	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
					2017-18	65,646,941	134.5	150,705	11.3
					2018-19	63,563,810	130.3	145,922	-3.2

\* 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
2017-18	668,470	1,060,963	890,214	2,619,647	5.37
2018-19	668,470	1,055,309	793,401	2,517,180	5.16

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 2018-19 Annual Survey



### 3. Total Water Supply and Demand





**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	264.8	296,654	5.5
2004-05	119,049,118	244.0	273,299	-7.9
2005-06	120,114,923	246.2	275,746	0.9
2006-07	125,204,289	256.6	287,429	4.2
2007-08	125,208,913	256.6	287,440	0.0
2008-09	118,117,836	242.1	271,161	-5.7
2009-10	109,619,067	224.6	251,651	-7.2
2010-11	109,143,031	223.7	250,558	-0.4
2011-12	108,793,380	223.0	249,755	-0.3
2012-13	109,831,797	225.1	252,139	1.0
2013-14	109,276,050	223.9	250,863	-0.5
2014-15	95,000,315	194.7	218,091	-13.1
2015-16	85,667,579	175.6	196,666	-9.8
2016-17	90,165,067	184.8	206,991	5.2
2017-18	97,723,725	200.3	224,343	8.4
2018-19	95,394,628	195.5	218,996	-2.4
*Inclusive of non-revenue water and supplemental purchases (see Table 2D).				
Source: BAWUA/BAWSCA Annual Surveys				

Figure 3C: Water Use by Source of Supply – FY 2018-19

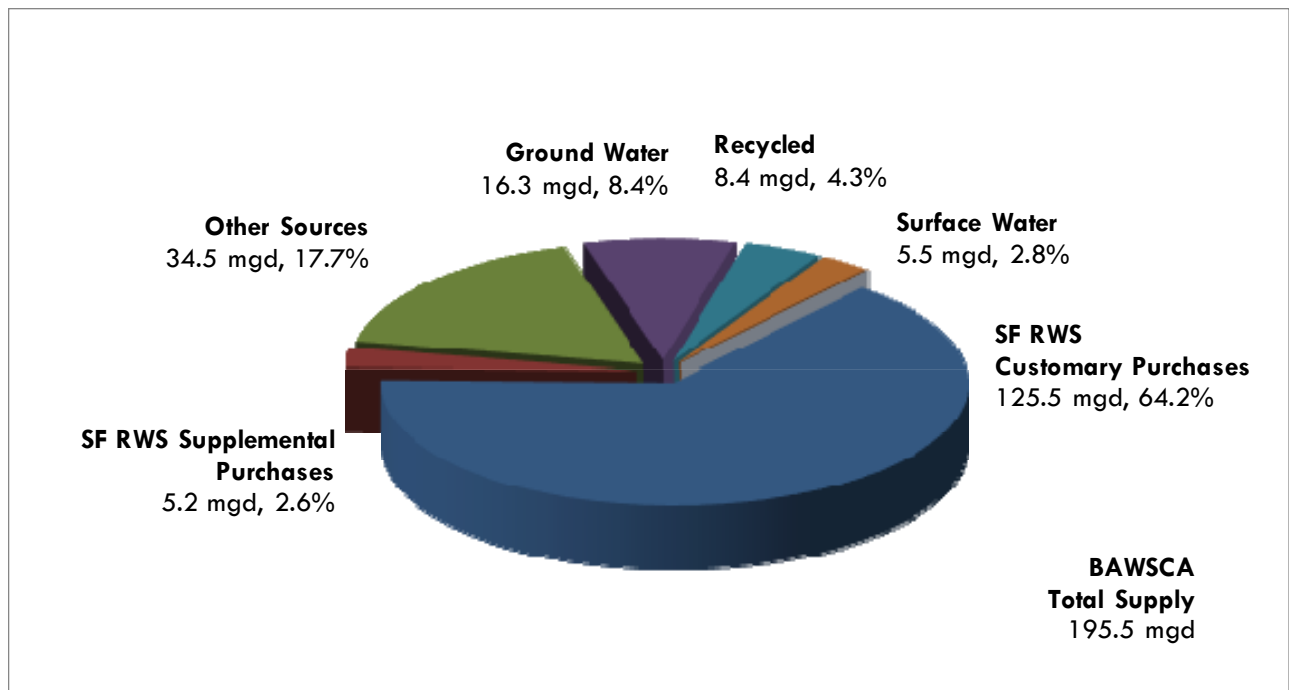
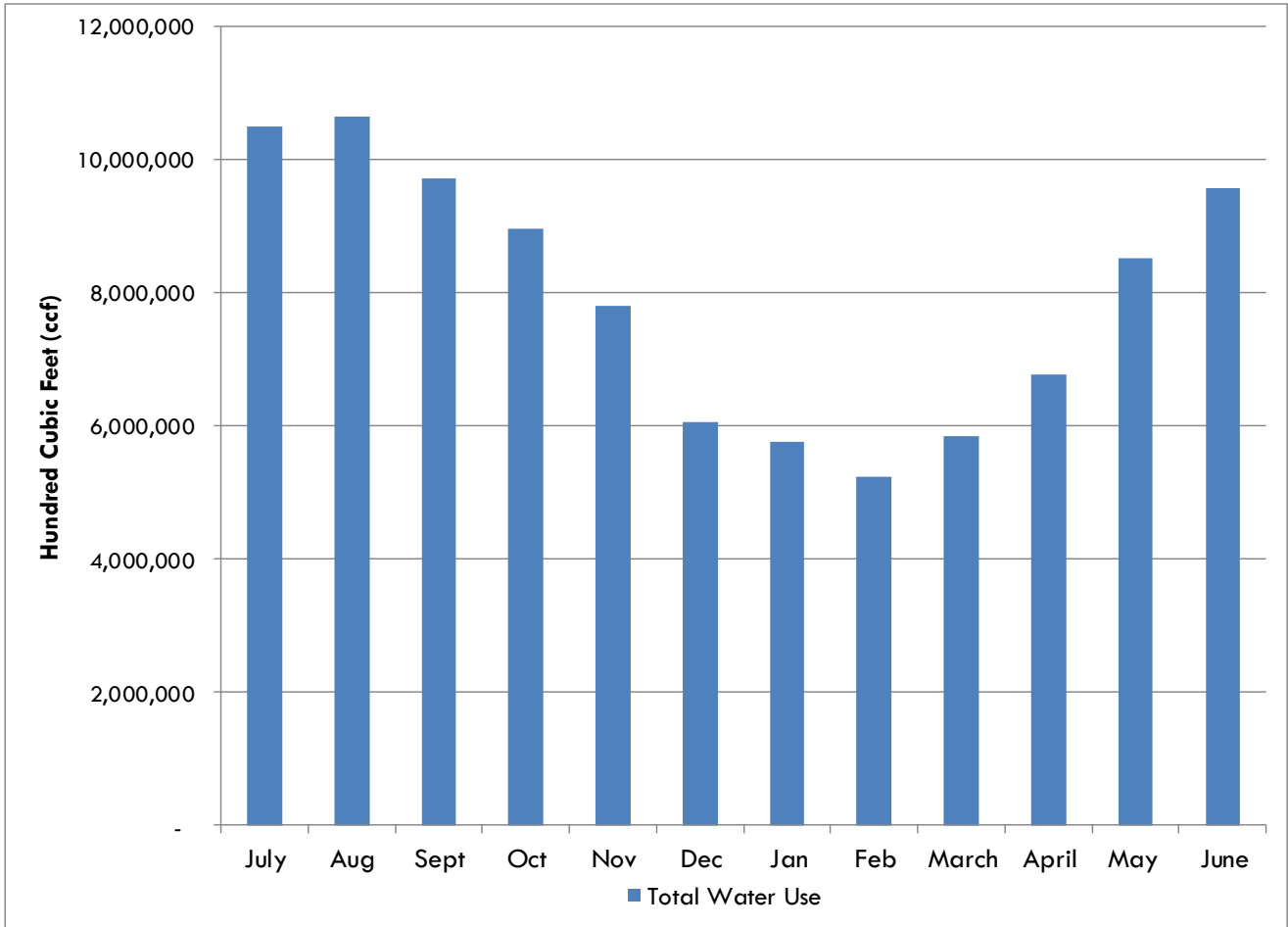


Figure 3D: Total Monthly Water Use for All BAWSCA Agencies – FY 2018-19



**Table 3C: Water Use by Source of Supply – FY 2018-19 (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 / GVMD	323,917	0	100.0%	0	0%	0	0%	0	0%	0	0%	323,917	0.66	0.34%
Burlingame	1,669,182	0	91.9%	0	0%	0	0%	146,400	8%	0	0%	1,815,582	3.72	1.90%
CWS - Bear Gulch	4,625,668	0	91.9%	0	0%	407,754	8.1%	0	0%	0	0%	5,033,422	10.32	5.28%
CWS - Mid Peninsula	5,991,673	0	100.0%	0	0%	0	0%	0	0%	0	0%	5,991,673	12.28	6.28%
CWS - South SF	2,277,038	668,470	100.0%	0	0%	0	0%	0	0%	0	0%	2,945,508	6.04	3.09%
Coastside CWD	547,861	0	62.8%	10,508	1.2%	314,412	36.0%	0	0%	0	0%	872,781	1.79	0.91%
Daly City	1,804,183 *	1,055,309	93.9%	0	0%	0	0%	186,618	6.1%	0	0%	3,046,110	6.24	3.19%
East Palo Alto**	763,315	0	100.0%	0	0%	0	0%	0	0%	0	0%	763,315	1.56	0.80%
Estero MID	1,969,663	0	100.0%	0	0%	0	0%	0	0%	0	0%	1,969,663	4.04	2.06%
Hillsborough	1,124,778	0	100.0%	0	0%	0	0%	0	0%	0	0%	1,124,778	2.31	1.18%
Menlo Park	1,383,605	0	100.0%	0	0%	0	0%	0	0%	0	0%	1,383,605	2.84	1.45%
Mid-Peninsula WD	1,220,573	0	100.0%	0	0%	0	0%	0	0%	0	0%	1,220,573	2.50	1.28%
Millbrae	949,277	0	100.0%	0	0%	0	0%	12	0%	0	0%	949,289	1.95	1.00%
North Coast CWD	1,119,762	0	98.0%	0	0%	0	0%	22,277	2%	0	0%	1,142,039	2.34	1.20%
Redwood City	3,943,761	0	92.9%	0	0%	0	0%	302,909	7.1%	0	0%	4,246,670	8.70	4.45%
San Bruno	420,116	793,401	88.3%	139,612	10.2%	0	0%	0	0%	21,622	1.6% †	1,374,751	2.82	1.44%
Westborough WD	379,833	0	100.0%	0	0%	0	0%	0	0%	0	0%	379,833	0.78	0.40%
<b>Subtotal</b>	<b>30,514,206</b>	<b>2,517,180</b>	<b>95.5%</b>	<b>150,120</b>	<b>0.4%</b>	<b>722,166</b>	<b>2.1%</b>	<b>658,216</b>	<b>1.90%</b>	<b>21,622</b>	<b>0.1%</b>	<b>34,583,510</b>	<b>70.87</b>	<b>36.25%</b>
<b>mgd equiv</b>	<b>62.53</b>	<b>5.16</b>		<b>0.31</b>		<b>1.48</b>		<b>1.35</b>		<b>0.04</b>		<b>70.87</b>		
<b>Santa Clara County</b>														
Milpitas	2,585,031	0	58.0%	0	0%	0	0%	489,032	11.0%	1,385,528	31.1%	4,459,591	9.14	4.67%
Mountain View	3,519,587	0	83.4%	105,363	2.5%	0	0%	160,299	4%	435,348	10.3%	4,220,597	8.65	4.42%
Palo Alto	4,600,990	0	92.6%	0	0%	0	0%	368,841	7.4%	0	0%	4,969,831	10.18	5.21%
Purissima Hills WD	770,703	0	100.0%	0	0%	0	0%	0	0%	0	0%	770,703	1.58	0.81%
San Jose	2,084,721	0	83.0%	7,335	0.3%	0	0%	421,131	16.8%	0	0%	2,513,187	5.15	2.63%
Santa Clara	1,474,198	0	15.5%	4,322,193	45.4%	0	0%	1,760,160	18.5%	1,966,444	20.6%	9,522,995	19.52	9.98%
Stanford***	697,159	0	56.7%	0	0%	0	0%	0	0%	531,008	43%	1,228,167	2.52	1.29%
Sunnyvale	4,394,289	0	53.3%	40,358	0.5%	0	0%	242,246	2.9%	3,560,568	43.2%	8,237,461	16.88	8.64%
<b>Subtotal</b>	<b>20,126,678</b>	<b>0</b>	<b>56.0%</b>	<b>4,475,249</b>	<b>12.5%</b>	<b>0</b>	<b>0.0%</b>	<b>3,441,709</b>	<b>9.6%</b>	<b>7,878,896</b>	<b>21.9%</b>	<b>35,922,531</b>	<b>73.62</b>	<b>37.66%</b>
<b>mgd equiv</b>	<b>41.25</b>	<b>0.00</b>		<b>9.17</b>		<b>0.00</b>		<b>7.05</b>		<b>16.15</b>		<b>73.62</b>		
<b>Alameda County</b>														
Alameda CWD	3,798,529	0	21.0%	3,347,726	18.5%	1,982,415	11.0%	0	0%	8,938,069	49.5%	18,066,739	37.02	18.9%
Hayward	6,821,848	0	100.0%	0	0%	0	0%	0	0%	0	0.0%	6,821,848	13.98	7.2%
<b>Subtotal</b>	<b>10,620,377</b>	<b>0</b>	<b>42.7%</b>	<b>3,347,726</b>	<b>13.5%</b>	<b>1,982,415</b>	<b>8.0%</b>	<b>0</b>	<b>0%</b>	<b>8,938,069</b>	<b>35.9%</b>	<b>24,888,587</b>	<b>51.00</b>	<b>26.09%</b>
<b>mgd equiv</b>	<b>21.76</b>	<b>0.00</b>		<b>6.86</b>		<b>4.06</b>				<b>18.32</b>		<b>51.00</b>		
<b>Total</b>	<b>61,261,261</b>	<b>2,517,180</b>	<b>66.9%</b>	<b>7,973,095</b>	<b>8.4%</b>	<b>2,704,581</b>	<b>2.8%</b>	<b>4,099,925</b>	<b>4.3%</b>	<b>16,838,587</b>	<b>17.7%</b>	<b>95,394,628</b>	<b>195.49</b>	<b>100.0%</b>
<b>mgd equiv</b>	<b>125.54</b>	<b>5.16</b>		<b>16.34</b>		<b>5.54</b>		<b>8.40</b>		<b>34.51</b>		<b>195.49</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.														
***"Other Sources" is made up of local surface water, local groundwater, construction dewatering, and stormwater capture used for irrigation (non-potable supplies).														
Source: BAWSCA FY 2018-19 Annual Survey														

**Table 3D: Total Monthly Water Use – FY 2018-19 (in ccf)**

Member	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	March	April	May	June	Total	mgd
<b>San Mateo County</b>														
Brisbane / GVMD	35,334	38,270	27,029	30,501	29,333	32,080	21,853	15,509	16,448	21,392	28,505	27,663	323,917	0.66
Burlingame	185,582	190,270	178,033	170,844	143,437	126,553	121,528	108,088	120,055	139,699	158,177	173,316	1,815,582	3.72
CWS - Bear Gulch	680,481	671,123	581,551	505,348	409,091	205,882	194,813	168,409	230,160	314,385	465,094	607,086	5,033,422	10.32
CWS - Mid Peninsula	643,395	644,899	590,535	560,072	481,997	371,320	373,946	342,484	387,426	440,799	540,619	614,181	5,991,673	12.28
CWS - South SF	292,030	284,652	267,615	268,240	239,653	212,975	212,306	191,962	213,816	227,798	255,619	278,842	2,945,508	6.04
Coastside CWD	113,610	90,882	93,209	80,869	66,685	49,545	59,826	43,877	55,548	67,246	68,342	83,142	872,781	1.79
Daly City	251,173	309,909	247,259	260,749	256,212	218,291	245,647	210,798	280,691	227,757	266,795	270,830	3,046,110	6.24
East Palo Alto	74,269	70,627	75,390	64,795	68,044	54,977	51,742	48,040	55,564	67,234	62,516	70,117	763,315	1.56
Estero MID	216,847	232,827	183,704	169,263	142,823	107,579	112,578	100,959	106,031	176,504	199,357	221,191	1,969,663	4.04
Hillsborough	155,230	166,602	129,299	112,403	70,334	38,186	40,006	31,312	32,457	91,511	108,371	149,067	1,124,778	2.31
Menlo Park	168,471	158,315	169,789	134,250	131,447	75,379	65,804	73,250	62,368	80,039	120,862	143,631	1,383,605	2.84
Mid-Peninsula WD	131,751	131,791	118,992	115,579	100,419	75,215	78,185	69,879	77,800	90,155	111,745	119,062	1,220,573	2.50
Millbrae	100,036	98,678	107,725	87,115	80,210	76,384	65,486	59,738	61,942	58,063	73,134	80,778	949,289	1.95
North Coast CWD	105,461	125,691	99,245	99,485	86,455	87,736	82,123	79,224	84,066	89,801	87,453	115,299	1,142,039	2.34
Redwood City	460,357	491,021	378,253	354,112	283,612	265,087	235,926	242,589	278,651	372,014	399,088	485,960	4,246,670	8.70
San Bruno	136,482	123,307	148,089	116,294	135,900	95,872	113,055	87,686	103,725	85,863	119,673	108,805	1,374,751	2.82
Westborough WD	36,851	35,542	31,958	33,714	34,624	35,286	22,640	27,520	25,640	30,596	35,945	29,517	379,833	0.78
<b>Subtotal</b>	<b>3,787,360</b>	<b>3,864,406</b>	<b>3,427,675</b>	<b>3,163,632</b>	<b>2,760,276</b>	<b>2,128,347</b>	<b>2,097,463</b>	<b>1,901,325</b>	<b>2,192,389</b>	<b>2,580,856</b>	<b>3,101,294</b>	<b>3,578,487</b>	<b>34,583,510</b>	<b>70.87</b>
<b>% of Annual Use</b>	<b>11%</b>	<b>11%</b>	<b>10%</b>	<b>9%</b>	<b>8%</b>	<b>6%</b>	<b>6%</b>	<b>5%</b>	<b>6%</b>	<b>7%</b>	<b>9%</b>	<b>10%</b>		
<b>Santa Clara County</b>														
Milpitas	402,224	433,893	561,956	363,554	332,660	432,819	271,086	252,995	345,373	300,334	368,659	394,038	4,459,591	9.14
Mountain View	479,192	512,648	389,611	395,506	333,263	237,527	252,032	215,990	242,828	320,406	403,408	438,186	4,220,597	8.65
Palo Alto	575,831	547,593	577,275	477,537	463,859	282,572	264,615	271,885	242,323	287,861	466,079	512,401	4,969,831	10.18
Purissima Hills WD	105,882	119,622	84,345	82,512	62,695	27,023	22,868	21,739	25,200	50,785	76,325	91,706	770,703	1.58
San Jose	310,879	258,254	286,520	208,427	252,400	124,785	153,812	122,244	171,326	166,258	254,178	204,104	2,513,187	5.15
Santa Clara	1,015,909	1,131,952	934,759	932,754	783,690	671,925	543,850	537,701	561,765	672,727	784,492	951,471	9,522,995	19.52
Stanford	143,395	167,555	157,149	122,202	107,769	51,613	39,784	47,361	50,968	67,428	116,833	156,108	1,228,165	2.52
Sunnyvale	915,217	940,578	798,359	799,073	665,527	484,518	486,326	436,179	484,649	616,204	767,187	843,644	8,237,461	16.88
<b>Subtotal</b>	<b>3,948,529</b>	<b>4,112,095</b>	<b>3,789,975</b>	<b>3,381,565</b>	<b>3,001,863</b>	<b>2,312,782</b>	<b>2,034,373</b>	<b>1,906,094</b>	<b>2,124,432</b>	<b>2,482,003</b>	<b>3,237,161</b>	<b>3,591,658</b>	<b>35,922,530</b>	<b>73.62</b>
<b>% of Annual Use</b>	<b>11%</b>	<b>11%</b>	<b>11%</b>	<b>9%</b>	<b>8%</b>	<b>6%</b>	<b>6%</b>	<b>5%</b>	<b>6%</b>	<b>7%</b>	<b>9%</b>	<b>10%</b>		
<b>Alameda County</b>														
Alameda CWD	2,003,405	1,974,197	1,818,615	1,736,623	1,449,763	1,166,754	1,131,291	1,001,929	1,113,215	1,270,529	1,580,220	1,820,198	18,066,739	37.02
Hayward	756,241	697,990	685,326	687,683	589,222	453,231	494,707	426,098	409,549	444,243	595,525	582,033	6,821,848	13.98
<b>Subtotal</b>	<b>2,759,646</b>	<b>2,672,187</b>	<b>2,503,941</b>	<b>2,424,306</b>	<b>2,038,985</b>	<b>1,619,985</b>	<b>1,625,998</b>	<b>1,428,027</b>	<b>1,522,764</b>	<b>1,714,772</b>	<b>2,175,745</b>	<b>2,402,231</b>	<b>24,888,587</b>	<b>51.00</b>
<b>% of Annual Use</b>	<b>11%</b>	<b>11%</b>	<b>10%</b>	<b>10%</b>	<b>8%</b>	<b>7%</b>	<b>7%</b>	<b>6%</b>	<b>6%</b>	<b>7%</b>	<b>9%</b>	<b>10%</b>		
<b>Total</b>	<b>10,495,536</b>	<b>10,648,688</b>	<b>9,721,590</b>	<b>8,969,503</b>	<b>7,801,124</b>	<b>6,061,115</b>	<b>5,757,834</b>	<b>5,235,445</b>	<b>5,839,585</b>	<b>6,777,631</b>	<b>8,514,201</b>	<b>9,572,375</b>	<b>95,394,627</b>	<b>195.49</b>
<b>% of Annual Use</b>	<b>11%</b>	<b>11%</b>	<b>10%</b>	<b>9%</b>	<b>8%</b>	<b>6%</b>	<b>6%</b>	<b>5%</b>	<b>6%</b>	<b>7%</b>	<b>9%</b>	<b>10%</b>		
<b>Note:</b> Totals inclusive of supplemental purchases.														
<b>Source:</b> BAWSCA FY 2018-19 Annual Survey														



**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	0.70	0.97	0.97	0.97	0.97
Burlingame	4.79	4.91	5.04	5.19	5.23
CWS - Bear Gulch	9.98	11.08	11.14	11.21	11.29
CWS - Mid-Peninsula	13.46	14.51	14.35	14.26	14.13
CWS - South SF	6.70	7.30	7.40	7.50	7.90
<b>CWS Total</b>	<b>30.14</b>	<b>32.89</b>	<b>32.89</b>	<b>32.97</b>	<b>33.32</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	2.90	2.96	3.02	3.02	3.02
Estero MID	4.12	4.14	4.21	4.27	4.31
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	3.10	3.12	3.15	3.20
Millbrae	2.60	2.70	2.70	2.80	3.00
North Coast CWD	2.90	2.96	3.02	3.02	3.02
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	0.83	0.82	0.80	0.80	0.80
<b>Subtotal</b>	<b>78.43</b>	<b>82.39</b>	<b>83.13</b>	<b>83.93</b>	<b>84.85</b>
<b>Santa Clara County</b>					
Milpitas	5.00	6.07	7.15	8.21	9.27
Mountain View	8.52	8.67	8.90	9.16	9.47
Palo Alto	10.60	10.20	9.93	9.70	9.50
Purissima Hills WD	2.17	2.17	2.17	2.17	2.17
San Jose	5.35	6.21	7.11	8.06	9.05
Santa Clara	4.50	4.50	4.50	4.50	4.50
Stanford	1.50	1.60	1.80	1.95	2.10
Sunnyvale	9.93	10.95	10.95	10.95	10.95
<b>Subtotal</b>	<b>47.57</b>	<b>50.37</b>	<b>52.51</b>	<b>54.70</b>	<b>57.01</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>155.20</b>	<b>163.82</b>	<b>168.06</b>	<b>172.23</b>	<b>177.24</b>
<b>Total w/o SJ &amp; SC</b>	<b>145.35</b>	<b>153.11</b>	<b>156.45</b>	<b>159.67</b>	<b>163.69</b>
<b>Source: BAWSCA FY 2018-19 Annual Survey</b>					

**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	0.00	0.00	0.00	0.00	0.00
San Bruno	1.50	1.50	1.50	1.67	2.02
<b>Subtotal</b>	<b>5.08</b>	<b>5.08</b>	<b>5.08</b>	<b>5.25</b>	<b>5.60</b>
<b>Santa Clara County</b>					
Milpitas	0.00	0.00	0.00	0.00	0.00
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	9.10	9.60	9.60	9.60	10.40
Sunnyvale	0.40	0.30	0.30	0.30	0.30
<b>Subtotal</b>	<b>10.86</b>	<b>12.12</b>	<b>13.03</b>	<b>14.00</b>	<b>15.80</b>
<b>Alameda County</b>					
Alameda CWD	9.10	9.10	9.10	9.10	9.10
<b>Total</b>	<b>25.04</b>	<b>26.30</b>	<b>27.21</b>	<b>28.35</b>	<b>30.50</b>

*Source: BAWSCA FY 2018-19 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 Creek and Denniston Creek					
3 Del Valle Reservoir					

*Source: BAWSCA FY 2018-19 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	1.80	1.80	1.80	1.80	1.80
Millbrae	0.02	0.02	0.02	0.02	0.02
North Coast CWD	0.20	0.20	0.20	0.20	0.20
Redwood City	0.80	0.96	1.12	1.28	1.44
<b>Subtotal</b>	<b>3.12</b>	<b>3.28</b>	<b>3.44</b>	<b>3.60</b>	<b>3.76</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	1.57	1.76
Santa Clara	4.60	4.60	4.60	4.60	4.60
Sunnyvale	1.30	1.40	1.50	1.50	1.50
<b>Subtotal</b>	<b>9.62</b>	<b>10.71</b>	<b>11.18</b>	<b>11.61</b>	<b>11.99</b>
<b>Alameda County</b>					
Hayward	0.26	0.52	1.04	2.08	2.08
<b>Total</b>	<b>12.99</b>	<b>14.51</b>	<b>15.66</b>	<b>17.28</b>	<b>17.83</b>

Source: BAWSCA FY 2018-19 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	4.40	5.34	5.01	5.75	6.49
Mountain View 1	1.07	1.07	1.07	1.07	1.07
Santa Clara 1	4.70	4.70	4.70	4.70	4.7
Stanford 2	1.20	1.25	1.30	1.35	1.40
Sunnyvale 1	8.93	9.84	11.36	11.36	11.36
<b>Subtotal</b>	<b>20.30</b>	<b>22.20</b>	<b>23.44</b>	<b>24.23</b>	<b>25.02</b>
<b>Alameda County</b>					
Alameda CWD 3	20.12	23.44	24.36	24.18	24
<b>Total</b>	<b>40.47</b>	<b>45.69</b>	<b>47.85</b>	<b>48.46</b>	<b>49.07</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					

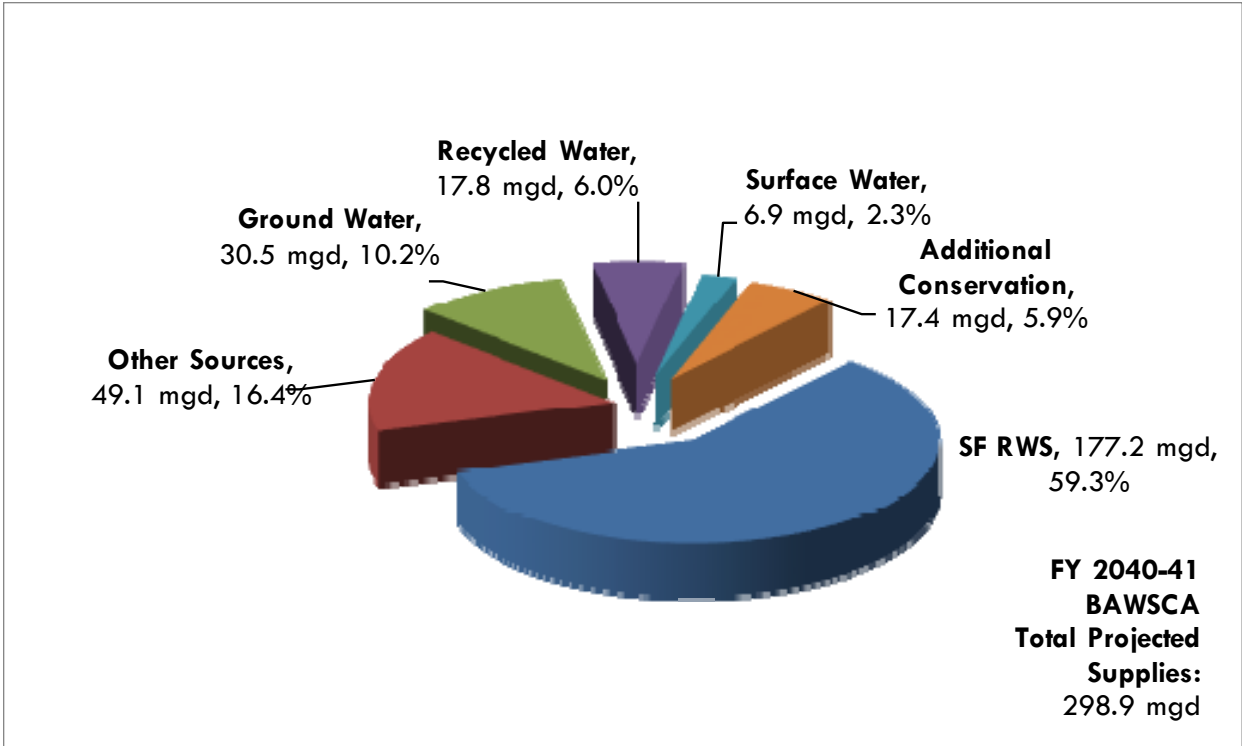
Source: BAWSCA FY 2018-19 Annual Survey

**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	155.20	163.82	168.06	172.23	177.24
Groundwater	25.04	26.30	27.21	28.35	30.50
Surface Water	6.86	6.86	6.86	6.86	6.86
Recycled	12.99	14.51	15.66	17.28	17.83
Other	40.47	45.69	47.85	48.46	49.07
Additional Conservation	9.96	11.96	13.81	15.78	17.36
<b>Total</b>	<b>250.52</b>	<b>269.14</b>	<b>279.45</b>	<b>288.96</b>	<b>298.86</b>
<i>Source: BAWSCA FY 2018-19 Annual Surveys</i>					

**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 2018-19

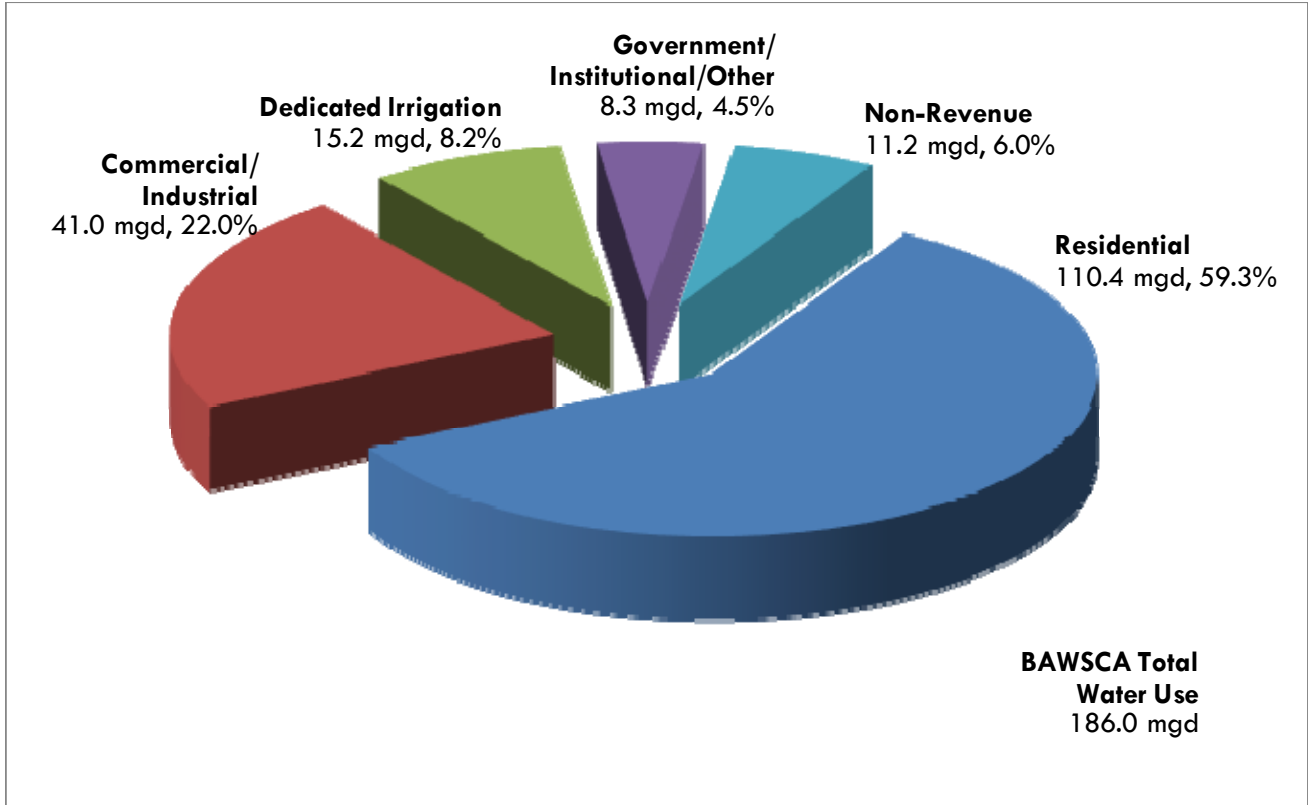


Figure 4B: Total Water Use by Customer Class – FY 2018-19

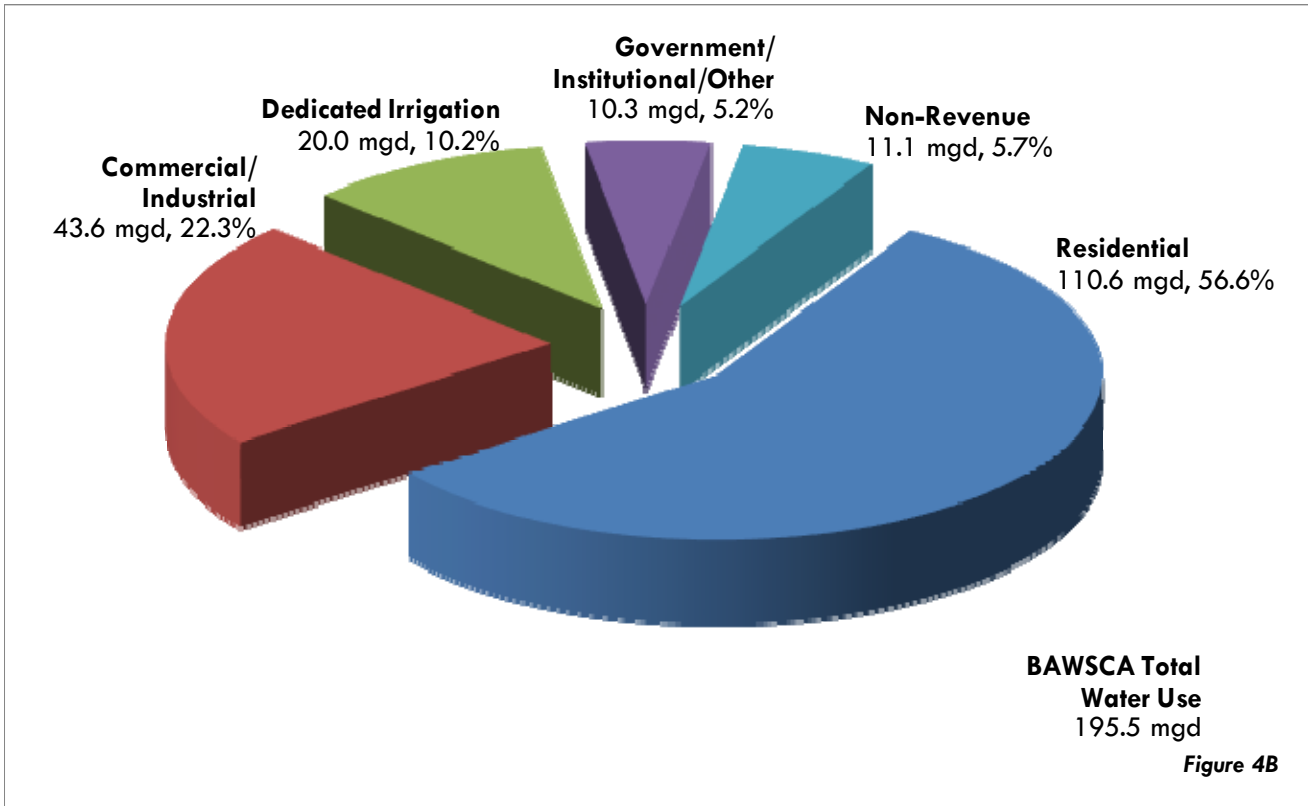


Figure 4C: Potable Water Use by Sector for BAWSCA Agencies – FY 2018-19

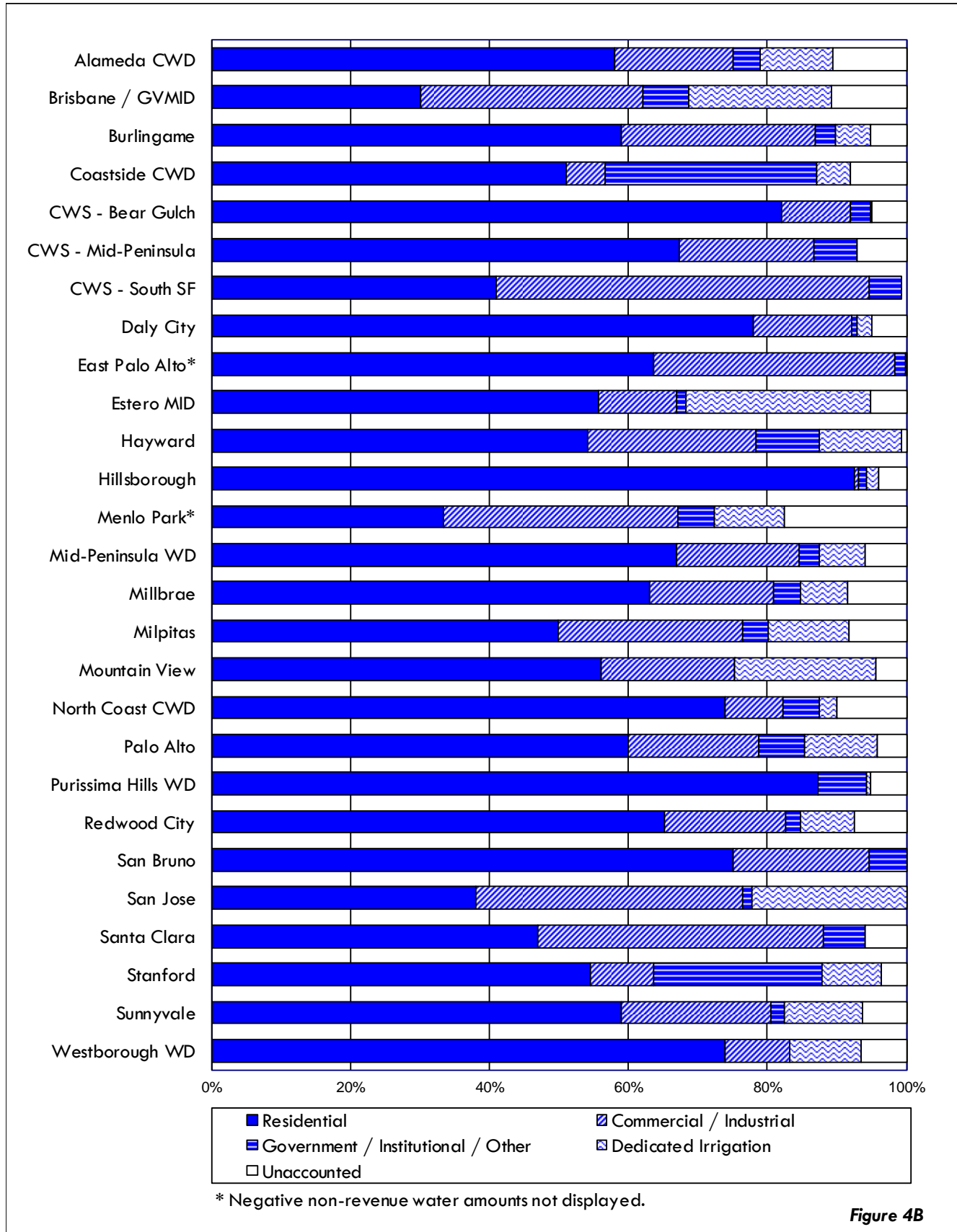


Figure 4B



**Table 4A: Potable Water Use by Customer Class – FY 2018-19 (in ccf)**

Member	Residential			Non-Residential					Dedicated Irrigation†	Non-Revenue Water‡	Total Potable 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	81,379	16,115	97,494	103,510	0	103,510	21,611	125,121	66,422	34,880	323,917	0.66
Burlingame	682,012	303,385	985,397	239,054	225,429	464,483	50,398	514,881	84,519	84,385	1,669,182	3.42
CWS - Bear Gulch	4,017,850	115,241	4,133,091	495,014	863	495,877	141,270	637,147	11,325	251,859	5,033,422	10.32
CWS - Mid-Peninsula	3,173,325	864,540	4,037,865	1,141,535	17,005	1,158,540	376,023	1,534,563	0	419,245	5,991,673	12.28
CWS - South SF	1,075,602	151,136	1,226,738	1,361,300	241,197	1,602,497	137,532	1,740,029	0	-21,259	2,945,508	6.04
Coastside CWD	405,417	40,750	446,167	48,065	0	48,065	266,457	314,522	41,335	70,757	872,781	1.79
Daly City	1,542,182	686,626	2,228,808	404,930	121	405,051	25,502	430,553	61,466	138,665	2,859,492	5.86
East Palo Alto*	487,190	0	487,190	257,516	7,560	265,076	11,049	276,125	0	1,479	764,794	1.57
Esteros MID	447,219	649,307	1,096,526	191,349	30,504	221,853	28,313	250,166	520,452	102,519	1,969,663	4.04
Hillsborough	1,041,123	0	1,041,123	5,418	0	5,418	13,670	19,088	20,300	44,267	1,124,778	2.31
Menlo Park	399,391	126,466	525,857	342,666	189,082	531,748	83,394	615,142	158,041	84,565	1,383,605	2.84
Mid-Peninsula WD	639,339	178,783	818,122	168,132	46,530	214,662	35,620	250,282	79,886	72,283	1,220,573	2.50
Millbrae	442,551	156,285	598,836	169,181	0	169,181	37,590	206,771	63,924	79,746	949,277	1.95
North Coast CWD	676,238	150,761	826,999	93,884	0	93,884	58,796	152,680	28,819	111,264	1,119,762	2.29
Redwood City	1,791,487	778,409	2,569,896	646,880	46,465	693,345	79,605	772,950	303,190	297,725	3,943,761	8.08
San Bruno*	1,032,586	0	1,032,586	269,983	0	269,983	72,182	342,165	0	0	1,374,751	2.82
Westborough	245,400	35,752	281,152	34,958	0	34,958	0	34,958	39,384	24,339	379,833	0.78
<b>Subtotal</b>	<b>18,180,291</b>	<b>4,253,556</b>	<b>22,433,847</b>	<b>5,973,375</b>	<b>804,756</b>	<b>6,778,131</b>	<b>1,439,012</b>	<b>8,217,143</b>	<b>1,479,063</b>	<b>1,796,720</b>	<b>33,926,773</b>	<b>69.53</b>
<b>mgd equiv</b>	<b>37.26</b>	<b>8.72</b>	<b>45.97</b>	<b>12.24</b>	<b>1.65</b>	<b>13.89</b>	<b>2.95</b>	<b>16.84</b>	<b>3.03</b>	<b>3.68</b>	<b>69.53</b>	
<b>Santa Clara County</b>												
Milpitas	1,218,094	759,756	1,977,850	564,893	495,420	1,060,313	144,921	1,205,234	460,410	327,065	3,970,559	8.14
Mountain View	1,032,221	1,243,259	2,275,480	615,135	165,614	780,749	874	781,623	828,647	174,548	4,060,298	8.32
Palo Alto	1,980,848	777,810	2,758,658	742,928	123,110	866,038	306,078	1,172,116	480,699	189,517	4,600,990	9.43
Purissima Hills WD	672,238	0	672,238	0	0	0	54,239	54,239	4,508	39,718	770,703	1.58
San Jose**	88,628	720,025	808,653	149,021	662,781	811,802	27,188	838,990	470,681	-26,268	2,092,056	4.29
Santa Clara	1,858,824	1,788,503	3,647,326	2,505,214	678,743	3,183,957	472,059	3,656,016	0	459,492	7,762,834	15.91
Stanford	165,757	214,641	380,398	473	62,901	63,374	169,600	232,974	58,453	25,334	697,159	1.43
Sunnyvale	2,465,753	2,249,906	4,715,659	1,728,835	0	1,728,835	142,209	1,871,044	899,064	509,447	7,995,215	16.38
<b>Subtotal</b>	<b>9,482,362</b>	<b>7,753,900</b>	<b>17,236,262</b>	<b>6,306,499</b>	<b>2,188,570</b>	<b>8,495,068</b>	<b>1,317,168</b>	<b>9,812,236</b>	<b>3,202,463</b>	<b>1,698,853</b>	<b>31,949,814</b>	<b>65.48</b>
<b>mgd equiv</b>	<b>19.43</b>	<b>15.89</b>	<b>35.32</b>	<b>12.92</b>	<b>4.49</b>	<b>17.41</b>	<b>2.70</b>	<b>20.11</b>	<b>6.56</b>	<b>3.48</b>	<b>65.48</b>	
<b>Alameda County</b>												
Alameda CWD	7,371,873	3,128,653	10,500,526	2,094,844	973,115	3,067,959	683,769	3,751,728	1,909,035	1,905,450	18,066,739	37.02
Hayward	2,443,217	1,252,835	3,696,052	583,397	1,064,312	1,647,709	629,273	2,276,982	807,220	41,594	6,821,848	13.98
<b>Subtotal</b>	<b>9,815,090</b>	<b>4,381,488</b>	<b>14,196,578</b>	<b>2,678,241</b>	<b>2,037,427</b>	<b>4,715,668</b>	<b>1,313,042</b>	<b>6,028,710</b>	<b>2,716,255</b>	<b>1,947,044</b>	<b>24,888,587</b>	<b>51.00</b>
<b>mgd equiv</b>	<b>20.11</b>	<b>8.98</b>	<b>29.09</b>	<b>5.49</b>	<b>4.18</b>	<b>9.66</b>	<b>2.69</b>	<b>12.35</b>	<b>5.57</b>	<b>3.99</b>	<b>51.00</b>	
<b>Total</b>	<b>37,477,743</b>	<b>16,388,944</b>	<b>53,866,687</b>	<b>14,958,115</b>	<b>5,030,753</b>	<b>19,988,867</b>	<b>4,069,222</b>	<b>24,058,089</b>	<b>7,397,781</b>	<b>5,442,617</b>	<b>90,765,174</b>	<b>186.01</b>
<b>mgd equiv</b>	<b>76.80</b>	<b>33.59</b>	<b>110.39</b>	<b>30.65</b>	<b>10.31</b>	<b>40.96</b>	<b>8.34</b>	<b>49.30</b>	<b>15.16</b>	<b>11.15</b>	<b>186.01</b>	
* Single family amount includes multi-family				† Dedicated Irrigation refers to separately metered irrigation usage and includes agriculture								
				‡ Non-Revenue water calculated as difference between total production and total consumption.								
<b>Source: BAWSCA FY 2018-19 Annual Survey</b>												

**Table 4B: Total Water Use by Customer Class – FY 2018-19 (in ccf)**

Member	Residential			Non-Residential					Dedicated Irrigation†	Non-Revenue Water‡	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	81,379	16,115	<b>97,494</b>	103,510	0	<b>103,510</b>	21,611	<b>125,121</b>	66,422		34,880	<b>323,917</b>	<b>0.66</b>
Burlingame	682,012	303,385	<b>985,397</b>	239,054	225,429	<b>464,483</b>	50,398	<b>514,881</b>	230,919		84,385	<b>1,815,582</b>	<b>3.72</b>
CWS - Bear Gulch	4,017,850	115,241	<b>4,133,091</b>	495,014	863	<b>495,877</b>	141,270	<b>637,147</b>	11,325		251,859	<b>5,033,422</b>	<b>10.32</b>
CWS - Mid-Peninsula	3,173,325	864,540	<b>4,037,865</b>	1,141,535	17,005	<b>1,158,540</b>	376,023	<b>1,534,563</b>	0		419,245	<b>5,991,673</b>	<b>12.28</b>
CWS - South SF	1,075,602	151,136	<b>1,226,738</b>	1,361,300	241,197	<b>1,602,497</b>	137,532	<b>1,740,029</b>	0		-21,259	<b>2,945,508</b>	<b>6.04</b>
Coastside CWD	405,417	40,750	<b>446,167</b>	48,065	0	<b>48,065</b>	266,457	<b>314,522</b>	41,335		70,757	<b>872,781</b>	<b>1.79</b>
Daly City	1,542,182	686,626	<b>2,228,808</b>	404,930	121	<b>405,051</b>	25,502	<b>430,553</b>	61,466		325,283	<b>3,046,110</b>	<b>6.24</b>
East Palo Alto*	487,190	0	<b>487,190</b>	257,516	7,560	<b>265,076</b>	11,049	<b>276,125</b>	0		0	<b>763,315</b>	<b>1.56</b>
Hester MID	447,219	649,307	<b>1,096,526</b>	191,349	30,504	<b>221,853</b>	28,313	<b>250,166</b>	520,452		102,519	<b>1,969,663</b>	<b>4.04</b>
Hillsborough	1,041,123	0	<b>1,041,123</b>	5,418	0	<b>5,418</b>	13,670	<b>19,088</b>	20,300		44,267	<b>1,124,778</b>	<b>2.31</b>
Menlo Park	399,391	126,466	<b>525,857</b>	342,666	189,082	<b>531,748</b>	83,394	<b>615,142</b>	158,041		84,565	<b>1,383,605</b>	<b>2.84</b>
Mid-Peninsula WD	639,339	178,783	<b>818,122</b>	168,132	46,530	<b>214,662</b>	35,620	<b>250,282</b>	79,886		72,283	<b>1,220,573</b>	<b>2.50</b>
Millbrae	442,551	156,285	<b>598,836</b>	169,181	0	<b>169,181</b>	37,590	<b>206,771</b>	63,924		79,758	<b>949,289</b>	<b>1.95</b>
North Coast CWD	676,238	150,761	<b>826,999</b>	93,884	0	<b>93,884</b>	58,796	<b>152,680</b>	28,819		133,541	<b>1,142,039</b>	<b>2.34</b>
Redwood City	1,791,487	778,409	<b>2,569,896</b>	647,396	54,358	<b>701,754</b>	79,627	<b>781,381</b>	594,772		300,621	<b>4,246,670</b>	<b>8.70</b>
San Bruno*	1,032,586	0	<b>1,032,586</b>	269,983	0	<b>269,983</b>	72,182	<b>342,165</b>	0		0	<b>1,374,751</b>	<b>2.82</b>
Westborough	245,400	35,752	<b>281,152</b>	34,958	0	<b>34,958</b>	0	<b>34,958</b>	39,384		24,339	<b>379,833</b>	<b>0.78</b>
<b>Subtotal</b>	<b>18,180,291</b>	<b>4,253,556</b>	<b>22,433,847</b>	<b>5,973,891</b>	<b>812,649</b>	<b>6,786,540</b>	<b>1,439,034</b>	<b>8,225,574</b>	<b>1,917,045</b>		<b>2,007,044</b>	<b>34,583,510</b>	<b>70.87</b>
<b>mgd equiv</b>	<b>37.26</b>	<b>8.72</b>	<b>45.97</b>	<b>12.24</b>	<b>1.67</b>	<b>13.91</b>	<b>2.95</b>	<b>16.86</b>	<b>3.93</b>		<b>4.11</b>	<b>70.87</b>	
<b>Santa Clara County</b>													
Milpitas	1,218,094	759,756	<b>1,977,850</b>	564,893	495,420	<b>1,060,313</b>	144,921	<b>1,205,234</b>	943,171		333,336	<b>4,459,591</b>	<b>9.14</b>
Mountain View	1,032,221	1,243,259	<b>2,275,480</b>	616,849	165,614	<b>782,463</b>	1,446	<b>783,909</b>	970,445		190,763	<b>4,220,597</b>	<b>8.65</b>
Palo Alto	1,980,848	777,810	<b>2,758,658</b>	742,928	123,110	<b>866,038</b>	674,653	<b>1,540,691</b>	480,965		189,517	<b>4,969,831</b>	<b>10.18</b>
Purissima Hills WD	672,238	0	<b>672,238</b>	0	0	<b>0</b>	54,239	<b>54,239</b>	4,508		39,718	<b>770,703</b>	<b>1.58</b>
San Jose**	88,628	720,025	<b>808,653</b>	149,021	836,444	<b>985,465</b>	27,188	<b>1,012,653</b>	717,498		-25,617	<b>2,513,187</b>	<b>5.15</b>
Santa Clara	1,858,824	1,904,011	<b>3,762,834</b>	3,230,080	1,031,818	<b>4,261,898</b>	1,038,369	<b>5,300,267</b>	0		459,893	<b>9,522,995</b>	<b>19.52</b>
Stanford	165,757	214,641	<b>380,398</b>	473	62,901	<b>63,374</b>	169,600	<b>232,974</b>	572,128		42,667	<b>1,228,167</b>	<b>2.52</b>
Sunnyvale	2,465,753	2,249,906	<b>4,715,659</b>	1,728,835	0	<b>1,728,835</b>	142,209	<b>1,871,044</b>	1,427,092		223,665	<b>8,237,461</b>	<b>16.88</b>
<b>Subtotal</b>	<b>9,482,362</b>	<b>7,869,408</b>	<b>17,351,770</b>	<b>7,033,079</b>	<b>2,715,307</b>	<b>9,748,386</b>	<b>2,252,625</b>	<b>12,001,011</b>	<b>5,115,807</b>		<b>1,453,943</b>	<b>35,922,531</b>	<b>73.62</b>
<b>mgd equiv</b>	<b>19.43</b>	<b>16.13</b>	<b>35.56</b>	<b>14.41</b>	<b>5.56</b>	<b>19.98</b>	<b>4.62</b>	<b>24.59</b>	<b>10.48</b>		<b>2.98</b>	<b>73.62</b>	
<b>Alameda County</b>													
Alameda CWD	7,371,873	3,128,653	<b>10,500,526</b>	2,094,844	973,115	<b>3,067,959</b>	683,769	<b>3,751,728</b>	1,909,035		1,905,450	<b>18,066,739</b>	<b>37.02</b>
Hayward	2,443,217	1,252,835	<b>3,696,052</b>	583,397	1,064,312	<b>1,647,709</b>	629,273	<b>2,276,982</b>	807,220		41,594	<b>6,821,848</b>	<b>13.98</b>
<b>Subtotal</b>	<b>9,815,090</b>	<b>4,381,488</b>	<b>14,196,578</b>	<b>2,678,241</b>	<b>2,037,427</b>	<b>4,715,668</b>	<b>1,313,042</b>	<b>6,028,710</b>	<b>2,716,255</b>		<b>1,947,044</b>	<b>24,888,587</b>	<b>51.00</b>
<b>mgd equiv</b>	<b>20.11</b>	<b>8.98</b>	<b>29.09</b>	<b>5.49</b>	<b>4.18</b>	<b>9.66</b>	<b>2.69</b>	<b>12.35</b>	<b>5.57</b>		<b>3.99</b>	<b>51.00</b>	
<b>Total</b>	<b>37,477,743</b>	<b>16,504,452</b>	<b>53,982,195</b>	<b>15,685,211</b>	<b>5,565,383</b>	<b>21,250,594</b>	<b>5,004,701</b>	<b>26,255,295</b>	<b>9,749,107</b>		<b>5,408,030</b>	<b>95,394,628</b>	<b>195.49</b>
<b>mgd equiv</b>	<b>76.80</b>	<b>33.82</b>	<b>110.63</b>	<b>32.14</b>	<b>11.41</b>	<b>43.55</b>	<b>10.26</b>	<b>53.81</b>	<b>19.98</b>		<b>11.08</b>	<b>195.49</b>	

\* Single family amount includes multi-family

† Dedicated Irrigation refers to separately metered irrigation usage and includes agriculture

‡ Non-Revenue water calculated as difference between total production and total consumption.

Source: BAWSCA FY 2018-19 Annual Survey

**Table 4C: Number of Customer Accounts – FY 2018-19**

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	1,531	119	1,650	290	0	290	0	290	91	2,031
Burlingame	6,843	737	7,580	609	261	870	556	1,426	204	9,210
CWS - Bear Gulch	16,958	187	17,145	1,250	1	1,251	155	1,406	8	18,559
CWS - Mid-Peninsula	31,276	745	32,021	3,361	93	3,454	372	3,826	0	35,847
CWS - SSF	14,030	177	14,207	1,884	52	1,936	240	2,176	0	16,383
Coastside CWD	5,833	110	5,943	315	0	315	1,252	1,567	76	7,586
Daly City	18,942	2,911	21,853	751	5	756	394	1,150	130	23,133
East Palo Alto	3,694	0	3,694	147	40	187	97	284	0	3,978
Estero MID	4,538	2,598	7,136	188	56	244	246	490	526	8,152
Hillsborough	4,203	0	4,203	10	0	10	17	27	82	4,312
Menlo Park	3,388	217	3,605	182	244	426	192	618	143	4,366
Mid-Peninsula WD	7,201	204	7,405	429	47	476	79	555	59	8,019
Millbrae	5,796	197	5,993	291	0	291	47	338	93	6,424
North Coast CWD	11,149	302	11,451	342	0	342	643	985	90	12,526
Redwood City	19,191	1,680	20,871	1,425	47	1,472	841	2,313	439	23,623
San Bruno	9,444	1,038	10,482	753	3	756	83	839	134	11,455
Westborough WD	3,730	14	3,744	50	0	50	0	50	94	3,888
<b>Subtotal</b>	167,747	11,236	178,983	12,277	849	13,126	5,214	18,340	2,169	199,492
<b>Santa Clara County</b>										
Milpitas	12,420	1,908	14,328	508	297	805	626	1,431	764	16,523
Mountain View	12,677	2,323	15,000	1,098	342	1,440	30	1,470	1,019	17,489
Palo Alto	15,124	2,199	17,323	1,341	66	1,407	975	2,382	421	20,126
Purissima Hills WD	2,091	0	2,091	0	0	0	101	101	10	2,202
San Jose	1,157	280	1,437	173	289	462	89	551	377	2,365
Santa Clara	17,067	4,799	21,866	2,573	329	2,902	525	3,427	0	25,293
Stanford										
Sunnyvale	23,624	1,663	25,287	2,594	0	2,594	187	2,781	919	28,987
<b>Subtotal</b>	84,160	13,172	97,332	8,287	1,323	9,610	2,533	12,143	3,510	112,985
<b>Alameda County</b>										
Alameda CWD	73,771	3,968	77,739	3,956	1,186	5,142	1,123	6,265	2,487	86,491
Hayward	30,864	1,253	32,117	2,213	2,322	4,535	609	5,144	1,387	38,648
<b>Subtotal</b>	104,635	5,221	109,856	6,169	3,508	9,677	1,732	11,409	3,874	125,139
<b>Total</b>	356,542	29,629	386,171	26,733	5,680	32,413	9,479	41,892	9,553	437,616
*Individually metered homes, townhouses, and condos			† Dedicated Irrigation refers to separately metered irrigation usage							
Source: BAWSCA FY 2018-19 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 (1906-2018)</b>				
	19.0	14.2	14.1	19.7
<b>Recent Past</b>				
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
FY 2017-18	11.6	9.2	9.9	14.1
FY 2018-19	20.3	16.4	16.1	23.3
<b>FY 2018-19 Deviation from Historical Avg</b>				
	1.3	2.2	2.0	3.6
<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 (1948-2018)</b>				
Annual	71.2	70.5	68.4	65.4
Summer**	81.5	81.2	77.0	72.3
<b>Recent Past</b>				
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
2017-18 Annual	71.8	73.5	69.9	67.7
Summer**	82.1	83.9	79.1	75.0
2018-19 Annual	70.1	71.3	68.2	66.0
Summer**	79.0	81.1	76.2	70.3
<b>FY 2018-19 Deviation From Historical Avg</b>				
Annual	-1.0	0.7	-0.2	0.7
Summer**	-2.5	0.0	-0.8	-2.0
*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

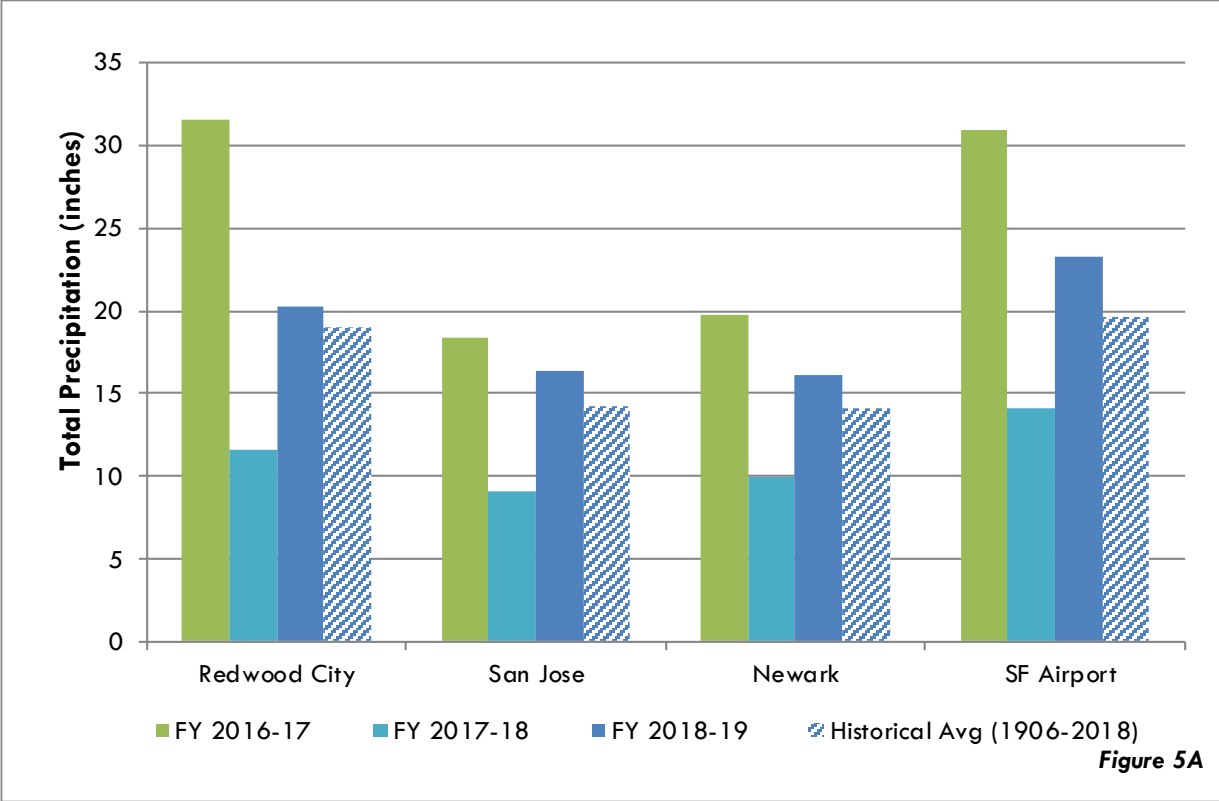
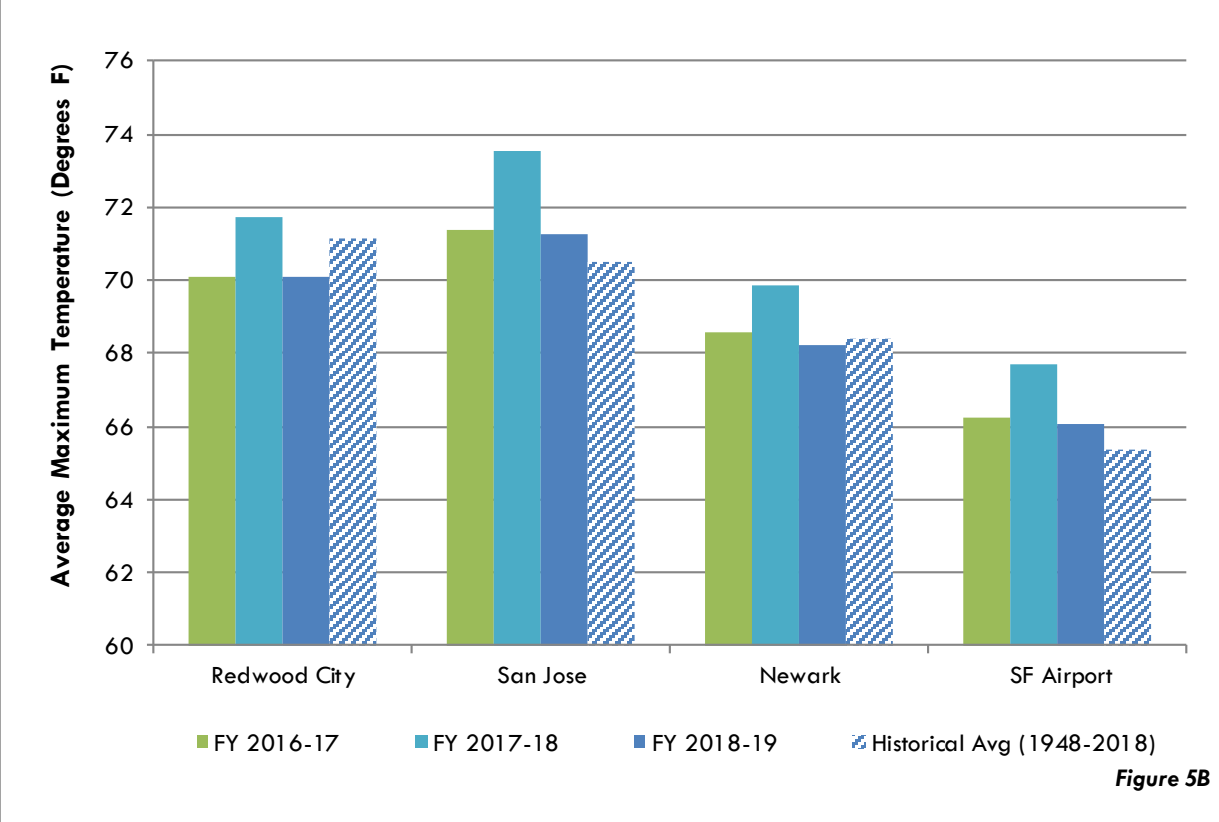


Figure 5B: Average Maximum Daily Temperature



## 6. Service Area Populations





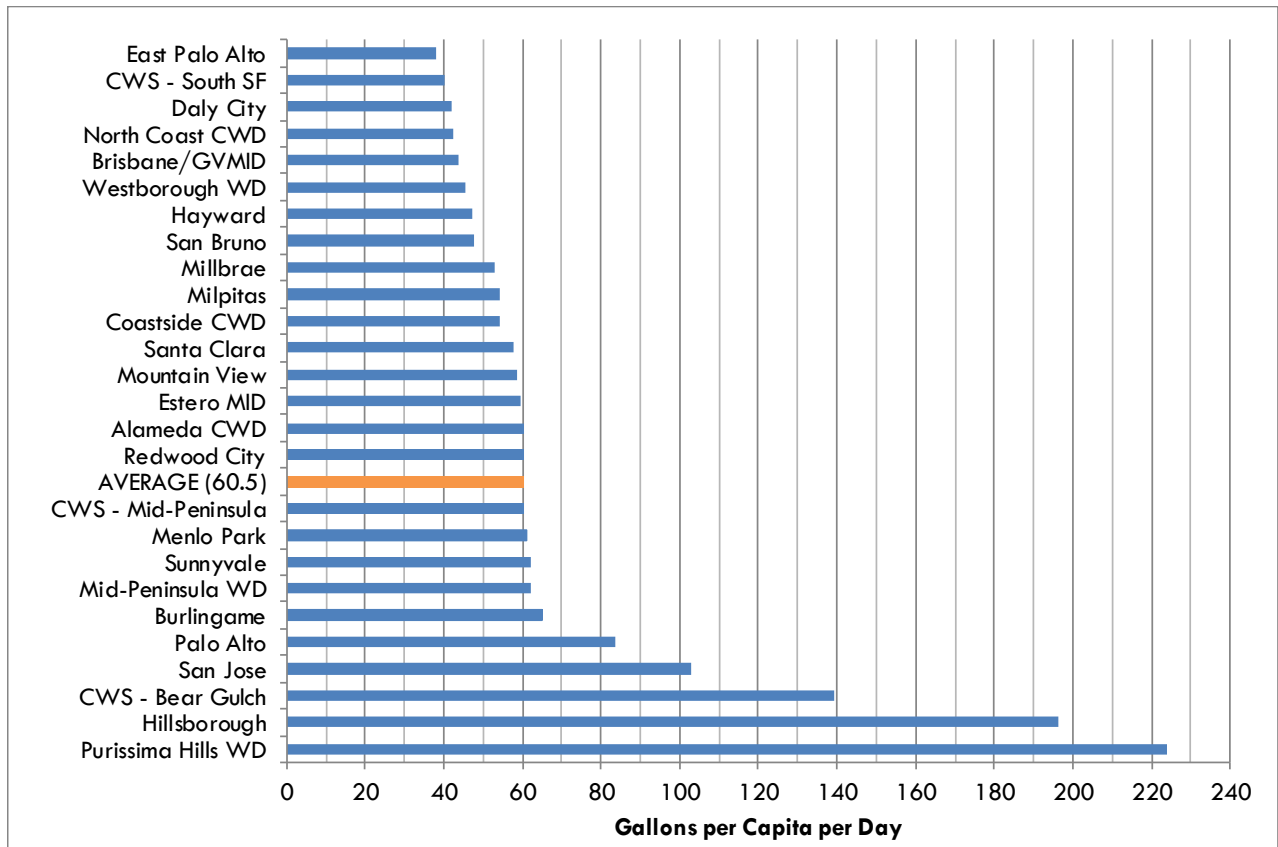
**Table 6: BAWSCA Service Area Populations**

	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 2017-18	FY 2018-19	Projections				
												FY 2020-21	FY 2025-26	FY 2030-31	FY 2035-36	FY 2040-41
<b>San Mateo County</b>																
Brisbane/GVMID	3,159	3,993	4,282	4,282	4,282	4,282	4,282	4,562	4,156	4,573	4,587	4,590	4,632	4,761	4,906	5,056
Burlingame	28,867	30,493	30,282	30,282	30,282	30,282	32,993	31,109	31,109	31,109	31,109	32,793	34,477	36,162	37,846	39,530
CWS - Bear Gulch	57,078	55,810	57,254	57,845	58,098	58,352	59,883	59,883	60,513	60,719	60,827	61,202	62,555	63,944	65,369	66,831
CWS - Mid-Peninsula	123,260	120,350	126,850	128,445	128,037	129,037	133,679	133,679	135,455	135,943	138,419	139,642	146,125	153,178	160,856	169,216
CWS - South SF	56,210	56,010	58,658	58,815	59,567	60,172	61,223	61,223	61,769	62,039	62,894	63,430	65,732	68,133	70,639	73,254
Coastside CWD	19,221	20,216	20,216	17,094	16,900	16,652	16,668	16,704	16,704	16,776	16,811	16,848	16,873	16,886	18,363	19,840
Daly City	107,099	107,773	101,920	102,043	102,820	104,462	108,510	109,139	109,139	109,139	109,139	118,000	122,700	129,700	136,900	143,900
East Palo Alto	29,690	29,690	26,181	25,215	25,927	25,927	29,143	24,424	26,181	26,181	26,181	27,490	28,865	30,308	31,823	33,414
Estero MID	36,100	36,100	36,100	36,100	36,567	37,000	37,088	37,165	37,518	37,687	37,861	37,200	38,035	38,661	39,079	39,440
Guadalupe Valley	438						Included with Brisbane									
Hillsborough	10,844	11,982	10,825	10,825	10,850	10,860	10,869	10,869	10,869	10,869	10,869	10,869	10,913	10,956	11,000	11,000
Los Trancos																
Menlo Park	14,139	14,139	14,198	14,198	14,198	16,066	15,342	16,066	16,066	17,071	17,648	18,224	21,214	24,204	27,194	30,184
Mid-Peninsula WD	26,050	26,130	26,130	26,270	26,270	26,270	26,730	26,730	26,924	26,924	26,924	26,924	27,560	28,259	28,793	29,438
Millbrae	21,387	21,387	21,532	21,532	21,532	21,532	21,532	22,848	22,848	22,848	23,168	22,848	24,192	25,571	27,076	28,657
North Coast CWD	40,000	40,401	40,000	40,000	39,000	39,000	40,000	40,000	40,000	40,000	40,000	39,800	40,600	41,400	42,000	42,400
Redwood City	83,895	85,098	84,557	86,647	86,647	86,427	87,059	87,023	87,023	87,023	87,023	90,518	93,765	97,128	100,614	104,247
San Bruno	40,165	41,114	41,114	41,420	41,114	43,798	43,798	44,409	44,409	44,409	44,409	45,600	48,600	51,200	53,400	55,800
Skyline							Included with CWS - Bear Gulch									
Westborough WD	12,000	12,690	13,300	13,259	13,259	13,259	13,260	14,050	14,050	12,703	12,703	12,791	13,101	13,411	13,721	14,020
<b>Subtotal</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>746,013</b>	<b>750,572</b>	<b>768,769</b>	<b>799,939</b>	<b>833,862</b>	<b>869,579</b>	<b>906,227</b>
<b>Santa Clara County</b>																
Milpitas	70,817	70,817	66,790	67,804	67,894	69,783	70,800	75,521	77,528	78,106	74,865	82,300	90,400	98,100	106,000	109,100
Mountain View	74,762	75,787	75,275	73,774	73,656	75,280	76,413	75,430	77,801	79,027	79,492	79,010	82,590	86,170	89,750	93,330
Palo Alto	63,400	65,408	64,403	64,538	66,368	66,642	66,152	68,020	66,930	67,320	67,709	68,020	70,500	73,700	77,100	84,600
Purissima Hills WD	6,050	6,060	6,118	6,120	6,127	6,142	6,140	6,150	6,150	6,150	6,150	6,150	6,165	6,180	6,195	6,220
San Jose*	16,900	14,645	14,624	14,658	15,178	15,286	15,948	9,059	13,733	16,084	16,032	20,785	32,712	45,536	59,059	73,167
Santa Clara	117,200	118,830	118,830	118,263	119,311	118,459	120,973	120,973	123,752	129,604	129,604	128,691	135,012	141,726	148,951	156,482
Stanford	27,397	27,491	28,218	28,792	29,401	29,635	30,486	30,943	31,558	32,218	32,578	33,094	35,173	37,373	39,560	41,766
Sunnyvale	137,538	138,826	141,099	142,896	145,973	147,055	148,028	148,372	149,831	153,389	155,567	154,671	161,314	167,957	174,600	181,243
<b>Subtotal</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>561,898</b>	<b>561,997</b>	<b>572,721</b>	<b>613,866</b>	<b>656,742</b>	<b>701,215</b>	<b>745,908</b>
<b>Alameda County</b>																
Alameda CWD	331,293	332,000	327,000	331,000	336,000	340,000	344,000	348,000	350,538	356,000	356,160	358,000	361,000	369,000	388,000	403,000
Hayward	150,878	153,104	146,000	147,113	148,756	151,037	152,889	158,985	158,985	160,500	160,500	150,919	157,655	164,617	171,979	179,916
<b>Subtotal</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>516,500</b>	<b>516,660</b>	<b>508,919</b>	<b>518,655</b>	<b>533,617</b>	<b>559,979</b>	<b>582,916</b>
<b>Total</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>1,824,411</b>	<b>1,829,229</b>	<b>1,850,409</b>	<b>1,932,460</b>	<b>2,024,221</b>	<b>2,130,773</b>	<b>2,235,051</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.																
<b>Source: BAWSCA Annual Surveys</b>																

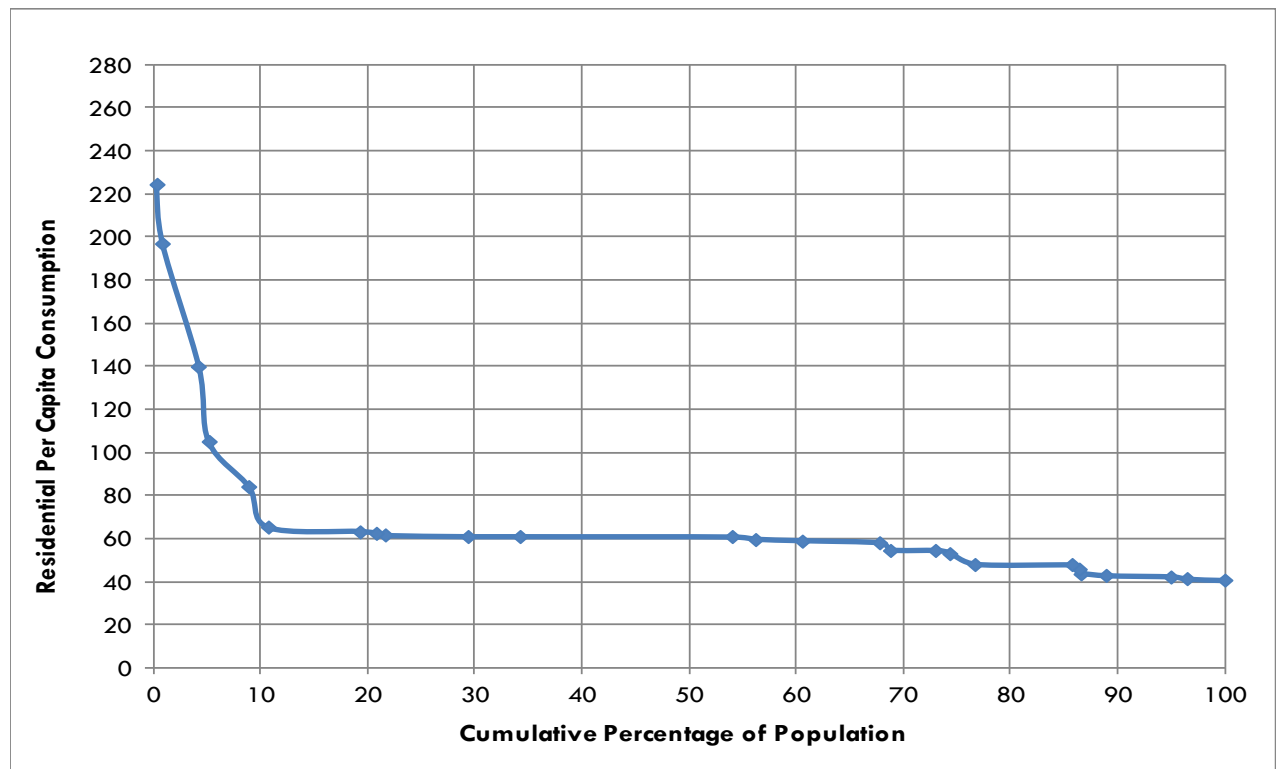
## 7. Current Water Use Per Capita



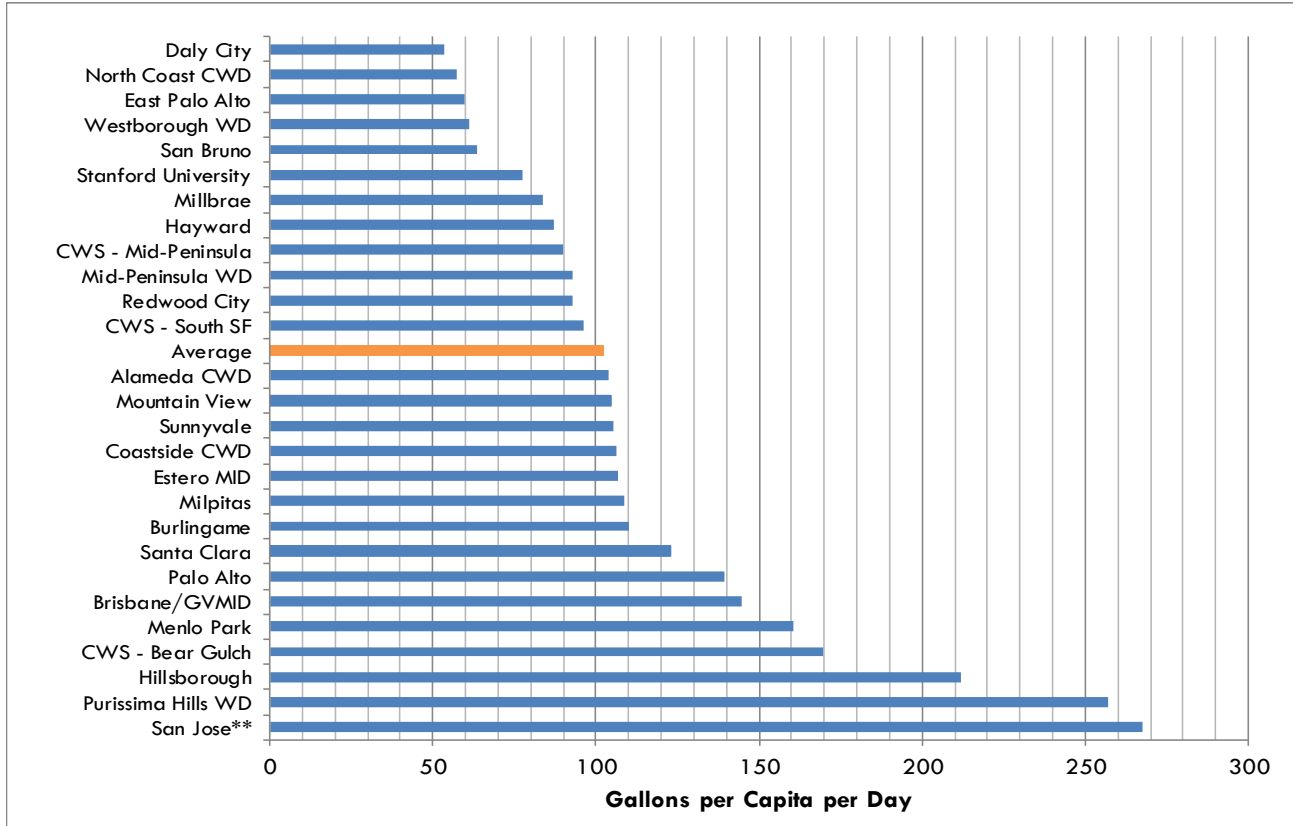
**Figure 7A-1: Residential Per Capita Consumption - FY 2018-19 (in gpcd)**



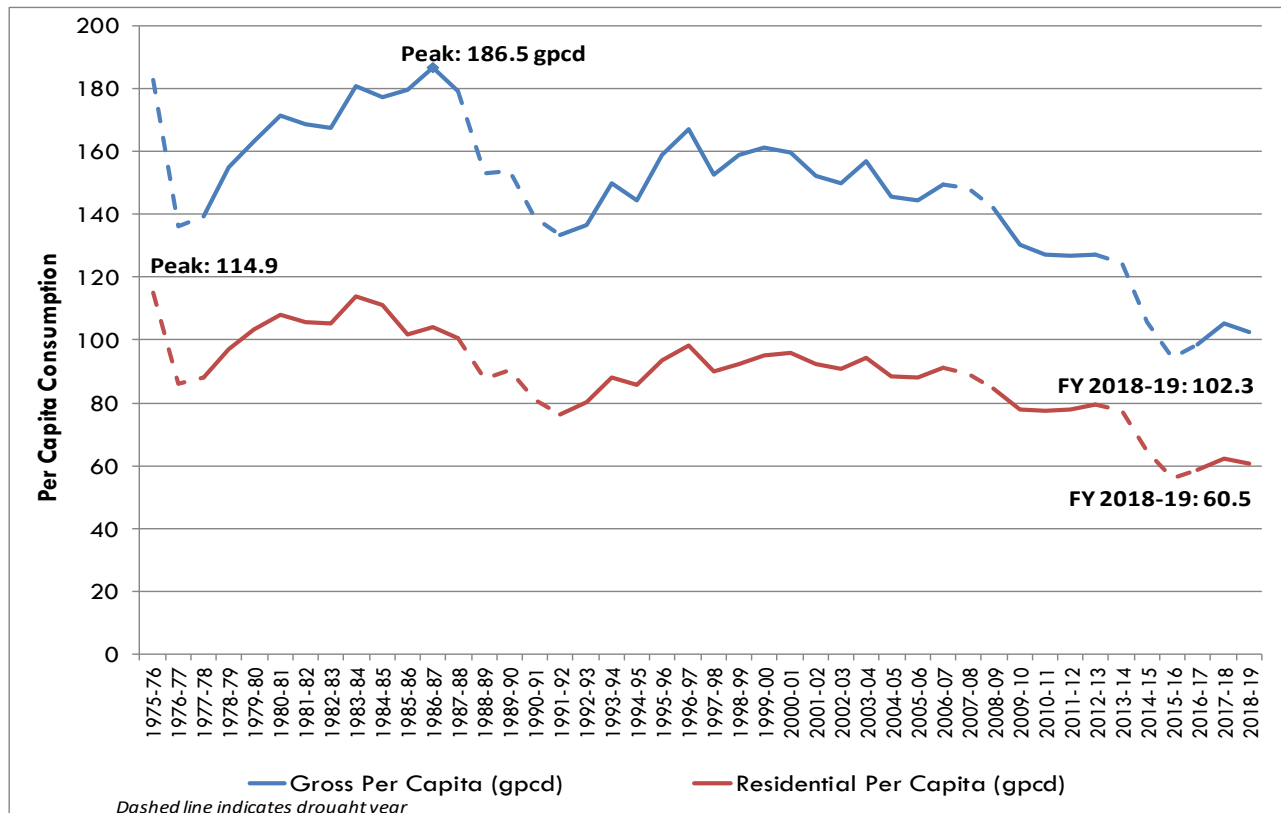
**Figure 7A-2: Residential Per Capita Consumption (in gpcd) Distributed by Percentage of Population- FY 2018-19**



**Figure 7B: Gross Per Capita Consumption(inin gpcd) – FY 2018-19**



**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 2018-19**

			<b>*Residential Per Capita Consumption</b>	<b>**Single-Family Average Monthly Use</b>
	<b>Service Area</b>	<b>Residential Consumption*</b>		
<b>Member</b>	<b>Population</b>	<b>(ccf)</b>	<b>(gpcd)</b>	<b>(ccf)</b>
East Palo Alto***	26,181	487,190	38.0	11.7
CWS - South SF	62,894	1,226,738	40.1	6.4
Daly City	109,139	2,228,808	41.9	6.8
North Coast CWD	40,000	826,999	42.4	5.1
Brisbane/GVMID	4,587	97,494	43.6	4.4
Westborough WD	12,703	281,152	45.4	5.5
Hayward	160,500	3,708,772	47.4	6.4
San Bruno	44,409	1,032,586	47.7	9.1
Millbrae	23,168	598,836	53.0	6.4
Milpitas	74,865	1,977,850	54.1	8.2
Coastside CWD	16,811	446,167	54.4	5.8
Santa Clara	129,604	3,647,326	57.7	9.1
Mountain View	79,492	2,275,480	58.7	6.8
Esteros MID	37,861	1,096,526	59.4	8.2
Alameda CWD	356,160	10,500,526	60.4	8.3
Redwood City	87,023	2,569,896	60.5	7.8
CWS - Mid-Peninsula	138,419	4,037,865	60.6	8.5
Menlo Park	17,648	525,857	61.1	9.8
Sunnyvale	155,567	4,715,659	62.0	8.7
Mid-Peninsula WD	26,924	818,122	62.3	7.4
Burlingame	31,109	985,397	64.9	8.3
Palo Alto	67,709	2,758,658	83.5	10.9
San Jose	16,032	808,652	103.0	6.4
CWS - Bear Gulch	60,827	4,133,091	139.2	19.7
Hillsborough	10,869	1,041,123	196.3	20.6
Purissima Hills WD	6,150	672,238	224.0	26.8
<b>Agency Totals</b>	<b>1,796,651</b>	<b>53,011,819</b>		
<b>Average Residential Per Capita Consumption</b>			<b>60.5</b>	
<b>Average Single Family Monthly Use</b>				<b>9.3</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 2018-19 Annual Survey				

**Table 7B: Gross Per Capita Consumption and Single-Family Average Monthly Use Among BAWSCA Members - FY 2018-19**

			<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>
Daly City	109,139	2,859,492	53.7
North Coast CWD	40,000	1,119,762	57.4
East Palo Alto	26,181	763,315	59.7
Westborough WD	12,703	379,833	61.3
San Bruno	44,409	1,374,751	63.4
Stanford University	32,578	1,228,167	77.3
Millbrae	23,168	949,277	84.0
Hayward	160,500	6,821,848	87.1
CWS - Mid-Peninsula	138,419	5,991,673	88.7
Redwood City	87,023	3,943,761	92.9
Mid-Peninsula WD	26,924	1,220,573	92.9
CWS - South SF	62,894	2,945,508	96.0
Alameda CWD	356,160	18,066,739	104.0
Mountain View	79,492	4,060,298	104.7
Sunnyvale	155,567	7,995,215	105.3
Coastside CWD	16,811	872,781	106.4
Esteros MID	37,861	1,969,663	106.6
Milpitas	74,865	3,970,559	108.7
Burlingame	31,109	1,669,182	110.0
Santa Clara	129,604	7,762,834	122.7
Palo Alto	67,709	4,600,990	139.3
Brisbane/GVMID	4,587	323,917	144.7
Menlo Park	17,648	1,383,605	160.7
CWS - Bear Gulch	60,827	5,033,422	169.6
Hillsborough	10,869	1,124,778	212.1
Purissima Hills WD	6,150	770,703	256.8
San Jose**	16,032	2,092,056	267.4
<b>Totals</b>	<b>1,829,229</b>	<b>91,294,703</b>	
		<b>Average gpcpd</b>	<b>102.3</b>
		<b>Median of Agencies</b>	<b>104.7</b>
*Exclusive of recycled water; inclusive of unaccounted for water.			
**Service area predominantly commercial/industrial.			
<b>Source:</b> BAWSCA FY 2018-19 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
2017-18	1,825,063	192.0	105.2	62.0
2018-19	1,827,189	187.1	102.3	60.5

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

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

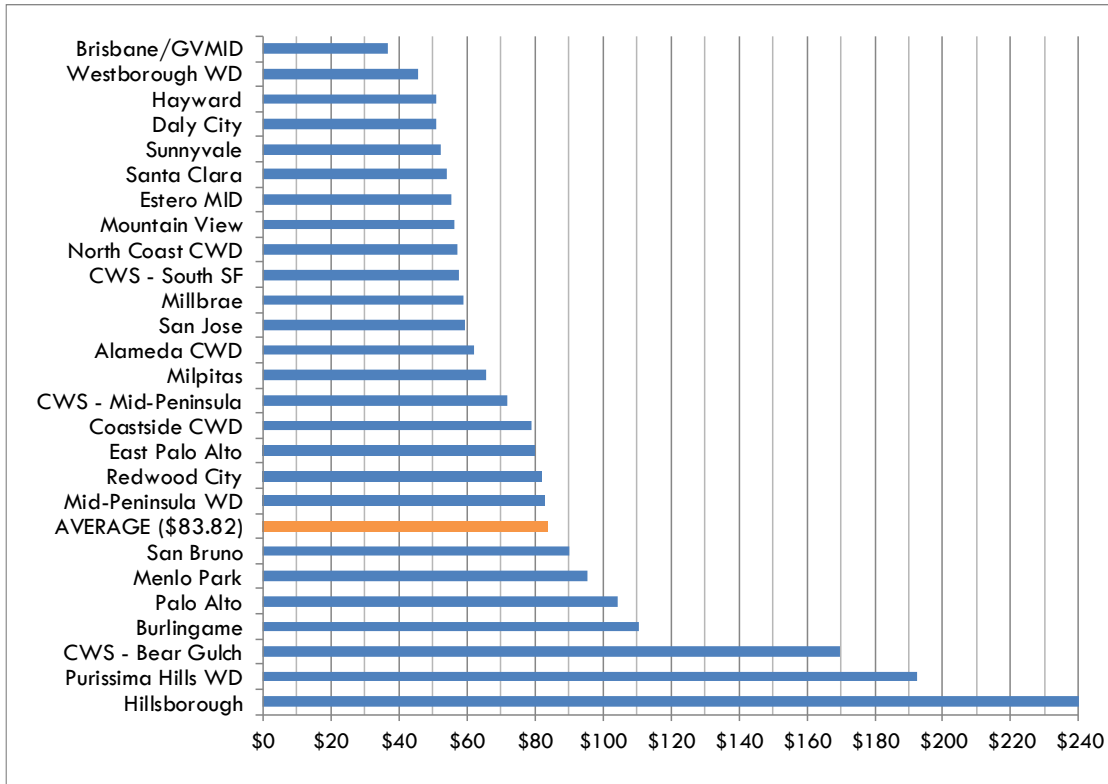
**Note:** Population figures shown above may not always match those figures shown in past annual surveys due to corrected data. Also, to conform with standardized reporting of gross per capita use, recycled water use has been removed from total water usage data starting in FY 1997-98.

**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 2018-19**



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

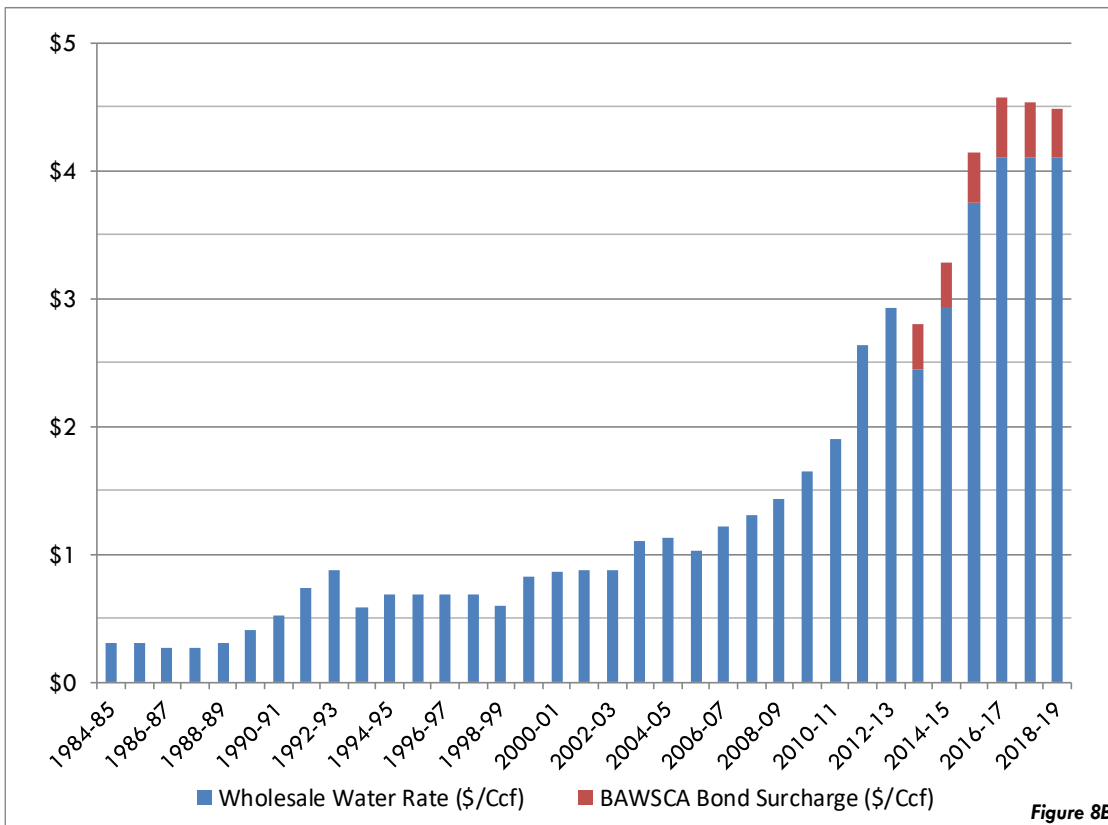


Figure 8B

**Table 8A: Single Family Water Bills\* Based on Average Monthly Use for 2018-19, Using Rates in Effect for FY 2018-19.**

**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>
Brisbane/GVMID	4.4		\$36.91
Westborough WD		5.5	\$45.53
Hayward	6.4		\$50.87
Daly City	6.8		\$51.15
Sunnyvale	8.7		\$52.23
Santa Clara	9.1		\$54.28
Estero MID		8.2	\$55.32
Mountain View	6.8		\$56.61
North Coast CWD		5.1	\$57.17
CWS - South SF		6.4	\$57.76
Millbrae	6.4		\$58.88
San Jose	6.4		\$59.56
Alameda CWD		8.3	\$62.02
Milpitas	8.2		\$65.73
CWS - Mid-Peninsula		8.5	\$71.88
Coastside CWD		5.8	\$78.92
East Palo Alto	11.7		\$80.02
Redwood City	7.8		\$81.97
Mid-Peninsula WD		7.4	\$82.95
San Bruno	9.1		\$90.36
Menlo Park	9.8		\$95.41
Palo Alto	10.9		\$104.47
Burlingame	8.3		\$110.49
CWS - Bear Gulch		19.7	\$169.60
Purissima Hills WD		26.8	\$192.58
Hillsborough	20.6		\$259.84
	<b>8.8</b>	<b>10.6</b>	<b>\$83.82</b>
* Inclusive of any service charge.			
<b>Note:</b> 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.			
<b>Source:</b> BAWSCA FY 2018-19 Annual Survey			

**Table 8B: Single Family Water Bills\* Based on Average Monthly Use for FY 2018-19, Using Rates in Effect for FY 2018-19  
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	Remarks
<b>Alameda CWD</b>	Bimonthly	\$52.33	\$4.25				\$62.02	Effective: 7/1/2018
8.3			\$4.42					3/1/2019
<b>Brisbane/Guadalupe Valley MID</b>	Bimonthly	\$22.67	\$5.19	1	-	3	\$36.91	Effective: 12/31/2016
4.4		3/4" meter	\$7.00	4	-	8		
			\$8.69	9	-	16		
			\$11.05	17	+			
<b>Burlingame</b>	Bimonthly	\$84.03	\$7.32	0.0	-	5.4	\$110.49	Effective: 1/1/2019
8.3		5/8" and 3/4" meters	\$8.21	5.4	-	10.7		
			\$9.11	10.7	-	21.4		
			\$10.01	21.4	-	32.1		
			\$10.91	32.1	+			
<b>CWS - Bear Gulch</b>	Monthly	\$20.69	\$7.32	1	-	10	\$169.60	Effective: 7/15/2019
19.7		5/8" and 3/4" meters	\$7.77	11	-	35		
			\$9.30	35	+			
<b>CWS - Mid Peninsula</b>	Monthly	\$16.36	\$6.48	0	-	7	\$71.88	Effective: 1/1/2019
8.5		5/8" and 3/4" meters	\$6.98	8	-	12		
			\$8.64	12	+			
<b>CWS - South San Francisco</b>	Monthly	\$16.36	\$6.48	1	-	7	\$57.76	Effective: 1/1/2019
6.4		5/8" and 3/4" meters	\$6.98	8	-	12		
			\$8.64	12	+			
<b>Coastside CWD</b>	Bimonthly	\$55.55	\$8.83	1	-	8	\$78.92	Effective: 7/1/2018
5.8			\$12.92	9	-	16		
			\$15.63	17	+			
<b>Daly City</b>	Bimonthly	\$37.84	\$4.75	0	-	13	\$51.15	Effective: 1/1/2019
6.8		5/8" and 3/4" meters	\$6.29	14	26			
			\$8.68	27	+			
<b>East Palo Alto</b>	Bimonthly	\$15.37	\$6.16				\$75.39	Effective: 7/1/2018
11.0		5/8 - 1" meters						
<b>Estero MID</b>	Bimonthly	\$21.45	\$5.43	0	-	20	\$55.32	Effective: 7/1/2018
8.2		3/4" meter	\$6.10	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 2018-19, Using Rates in Effect for FY 2018-19**

**Inclusive of Service Charge (2 of 3)**

Member/ Average Monthly Use (Units)	Billing Cycle	Service Charge	Rate per ccf	Rate Blocks (ccf)			Total Monthly Bill	Remarks	
<b>Hayward</b>	Bimonthly	\$28.00	\$5.80	1	-	8	\$52.26	Effective:	10/1/2019
6.6		5/8" meter	\$7.14	9	-	25			
			\$8.41	26	+				
<b>Hillsborough</b>	Monthly	\$137.36	\$5.88	0	-	20	\$259.84	Effective:	1/1/2018
20.6		3/4" meter	\$7.59	20	-	44			
			\$10.43	44	-	70			
			\$15.92	70	+				
<b>Menlo Park</b>	Monthly	\$25.19	\$5.28	1	-	6	\$95.41	Effective:	7/1/2018
9.8		5/8" and 3/4" meters	\$6.97	6	+				
<b>Mid-Peninsula WD</b>	Monthly	\$26.00	\$5.69	0	-	2	\$82.95	Effective:	7/1/2018
7.4		5/8" meter	\$8.44	3	-	9			
			\$10.29	10	-	22			
			\$12.14	55	+				
<b>Millbrae</b>	Bimonthly	\$0.00	\$9.20				\$58.88	Effective:	7/1/2018
6.4									
<b>Milpitas</b>	Bimonthly	\$27.01	\$6.39				\$65.73	Effective:	4/1/2019
8.2		5/8" meter							
<b>Mountain View</b>	Bimonthly	\$15.15	\$5.15	0	-	3	\$56.61	Effective:	7/1/2018
6.8		All single-family accounts	\$6.87	3	-	15			
			\$10.99	15	+				
<b>North Coast CWD</b>	Bimonthly	\$50.93	\$6.26	1	-	5	\$57.17	Effective:	7/1/2018
5.1			\$7.46	6	-	10			
			\$12.86	11	-	19			
			\$21.61	20	+				
<b>Palo Alto</b>	Monthly	\$18.43	\$6.64	0	-	6	\$104.47	Effective:	7/1/2018
10.9		5/8" meter	\$9.44	7	+				
<b>Purissima Hills WD</b>	Monthly	\$20.00	\$5.42	1	-	10	\$192.58	Effective:	7/1/2019
26.8		3/4" meter	\$7.05	11	-	30			
			\$9.15	31	-	60			
			\$11.24	61	-	100			
			\$13.33	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 2018-19, Using Rates in Effect for FY 2018-19  
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> 7.8	Bimonthly	\$29.52	\$6.13	0	-	8	\$81.97	Effective:	7/1/2018
			\$7.35	9	-	20			
			\$10.20	21	-	40			
			\$13.45	41	+				
<b>San Bruno</b> 9.1	Bimonthly	\$24.36	\$8.58	0	-	10	\$90.36	Effective:	10/23/2019
		3/4" meter	\$10.27	11	-	20			
			\$13.65	21	+				
<b>San Jose MWD-N</b> 6.4	Bimonthly	\$55.54	\$4.98	0	0	0	\$59.56	Effective:	7/1/2018
		5/8" meter	\$0.00	0	0				
<b>Santa Clara</b> 9.1	Monthly	\$5.98	\$5.98				\$54.28	Effective:	7/1/2018
									Service charge is the minimum monthly charge, not added if usage is greater than the minimum
<b>Sunnyvale</b> 8.7	Bimonthly	\$28.10	\$4.39	0	-	10	\$5.61	Effective:	7/1/2017
		5/8 x 3/4" meter	\$5.36	11	-	0			
<b>Westborough WD</b> 5.5	Bimonthly	\$20.00	\$6.48				\$45.53	Effective:	7/1/2018

\* Average single family use among BAWSCA agencies varies from 4.5 to 28.8 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 Monthly Bill</b>	<b>Average Monthly Service Charge</b>
All BAWSCA Agencies	\$83.82	\$18.60
Municipal Agencies Only	\$82.01	\$19.29
Special Districts / Private	\$86.28	\$17.66
** Inclusive of service charge		
Source: BAWSCA FY 2018-19 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
2017-18	\$ 4.10	\$ 0.44
2018-19	\$ 4.10	\$ 0.39

\*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	356,160
Number of Accounts	86,491
Number of SF RWS Connections	8
Connections to SF RWS Mains	BDPL 1, 2, 3, 4 and 5
Avg. Day Demand (mgd)	37.02
Avg. Day Purchases from SF RWS (mgd)	7.78
% Demand Met with SF RWS Supplies	21%
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 is currently operating one surface

water treatment plant that can treat SWP imports 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 15-16 (ccf)	Actual FY 16-17 (ccf)	Actual FY 17-18 (ccf)	Actual FY 18-19 (ccf)
San Francisco Water	3,037,166	3,081,217	3,716,845	3,798,529
State Water Project	4,766,541	3,644,398	6,675,349	6,030,448
Desalinated Water	3,328,476	3,428,770	3,119,652	2,907,621
Local Groundwater	2,267,513	2,908,717	3,647,727	3,347,726
Surface Water	2,405,251	3,923,142	898,047	1,982,415
Recycled Water	0	0	0	0
<b>Total</b>	<b>15,804,947</b>	<b>16,986,243</b>	<b>18,057,620</b>	<b>18,066,739</b>
<b>mgd equivalent</b>	<b>32.39</b>	<b>34.81</b>	<b>37.01</b>	<b>37.02</b>

### Demand by Sector

Residential	9,278,709	10,686,198	10,708,680	10,500,526
Commercial/Industrial	2,846,250	2,999,503	3,152,692	3,067,959
Other	553,225	647,774	683,279	683,769
Dedicated Irrigation	1,203,688	1,545,155	2,018,205	1,909,035
Non-Revenue Water	1,923,075	1,107,614	1,494,764	1,905,450
<b>Total</b>	<b>15,804,947</b>	<b>16,986,243</b>	<b>18,057,620</b>	<b>18,066,739</b>
<b>mgd equivalent</b>	<b>32.39</b>	<b>34.81</b>	<b>37.01</b>	<b>37.02</b>

Per Capita Use	Actual FY 15-16 (gpcpd)	Actual FY 16-17 (gpcpd)	Actual FY 17-18 (gpcpd)	Actual FY 18-19 (gpcpd)
Residential	55	62	62	60
Gross	93	99	104	92

**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>85.7</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*	4,587
Number of Accounts	2,031
Number of SF RWS Connections	5
Connections to SF RWS Mains	Crystal Springs Pipeline #1 and #2
Avg. Day Demand (mgd)	0.66
Avg. Day Purchases from SF RWS (mgd)	0.66
% Demand Met with SF RWS Supplies	100%
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**

Supply by Source	Actual FY 15-16 (ccf)	Actual FY 16-17 (ccf)	Actual FY 17-18 (ccf)	Actual FY 18-19 (ccf)
San Francisco Water	257,414	294,756	334,217	323,917
Recycled Water	0	0	0	0
Other	0	0	0	0
<b>Total</b>	257,414	294,756	334,217	323,917
<b>mgd equivalent</b>	0.53	0.60	0.68	0.66

**Demand by Sector**

Residential	89,940	97,425	98,769	97,494
Commercial/Industrial	99,719	110,718	115,945	103,510
Other	3,825	10,803	16,449	21,611
Dedicated Irrigation	43,195	48,045	74,357	66,422
Non-Revenue Water	20,735	27,765	28,697	34,880
<b>Total</b>	257,414	294,756	334,217	323,917
<b>mgd equivalent</b>	0.53	0.60	0.68	0.66

Per Capita Use	Actual FY 15-16 (gpcpd)	Actual FY 16-17 (gpcpd)	Actual FY 17-18 (gpcpd)	Actual FY 18-19 (gpcpd)
Residential	40	48	44	44
Gross	116	145	150	119

**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**

Designation	Type	Capacity (gallons)
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>		2,900,000

**Interties**

Name	No.	Diameter (in.)
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	9,210
Number of SF RWS Connections	6
Connections to SF RWS Mains	Crystal Springs #2 and #3, Sunset Pipeline
Avg. Day Demand (mgd)	3.72
Avg. Day Purchases from SF RWS (mgd)	3.42
% 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 15-16 (ccf)	Actual FY 16-17 (ccf)	Actual FY 17-18 (ccf)	Actual FY 18-19 (ccf)
San Francisco Water	1,505,779	1,592,044	1,695,956	1,669,182
Recycled Water	146,388	146,400	146,400	146,400
Other	0	0	0	0
<b>Total</b>	<b>1,652,167</b>	<b>1,738,444</b>	<b>1,842,356</b>	<b>1,815,582</b>
<b>mgd equivalent</b>	<b>3.39</b>	<b>3.56</b>	<b>3.78</b>	<b>3.72</b>

**Demand by Sector**

Residential	855,442	915,404	1,002,137	985,397
Commercial/Industrial	457,266	433,018	471,718	464,483
Other	35,083	39,480	48,409	50,398
Dedicated Irrigation	55,755	213,269	240,638	230,919
Non-Revenue Water	55,755	137,273	79,454	84,385
<b>Total</b>	<b>1,652,167</b>	<b>1,738,444</b>	<b>1,842,356</b>	<b>1,815,582</b>
<b>mgd equivalent</b>	<b>3.39</b>	<b>3.56</b>	<b>3.78</b>	<b>3.72</b>

Per Capita Use	Actual FY 15-16 (gpcpd)	Actual FY 16-17 (gpcpd)	Actual FY 17-18 (gpcpd)	Actual FY 18-19 (gpcpd)
Residential	56	60	66	65
Gross	99	105	112	99

**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	60,827
Number of Accounts	18,559
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)	10.32
Avg. Day Purchases from SF RWS (mgd)	9.48
% Demand Met with SF RWS Supplies	92%
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 16-17 (ccf)	Actual FY 17-18 (ccf)	Actual FY 17-18 (ccf)	Actual FY 18-19 (ccf)
San Francisco Water	4,118,677	5,000,555	5,000,555	4,625,668
Local Groundwater	0	0	0	0
Surface Water	388,045	164,808	164,808	407,754
Recycled Water	0	0	0	0
Other	0	0	0	0
<b>Total</b>	<b>4,506,722</b>	<b>5,165,363</b>	<b>5,165,363</b>	<b>5,033,422</b>
<b>mgd equivalent</b>	<b>9.24</b>	<b>10.59</b>	<b>10.59</b>	<b>10.32</b>

### Demand by Sector

Residential	3,683,770	4,276,795	4,276,795	4,133,091
Commercial/Industrial	431,082	470,128	470,128	495,877
Other	118,413	146,964	146,964	141,270
Dedicated Irrigation	10,355	12,430	12,430	11,325
Non-Revenue Water	263,102	259,046	259,046	251,859
<b>Total</b>	<b>4,506,722</b>	<b>5,165,363</b>	<b>5,165,363</b>	<b>5,033,422</b>
<b>mgd equivalent</b>	<b>9.24</b>	<b>10.59</b>	<b>10.59</b>	<b>10.32</b>

Per Capita Use	Actual FY 16-17 (gpcpd)	Actual FY 17-18 (gpcpd)	Actual FY 17-18 (gpcpd)	Actual FY 18-19 (gpcpd)
Residential	108	144	144	139
Gross	132	174	174	161

**Facilities and Distribution**

**Storage Reservoirs**

Designation	Type	Capacity (gallons)
Bear Gulch Reservoir*	Earth	215,000,000
Sta. 002-Tank 1	Steel	250,000
Sta. 002-Tank 2	Steel	500,000
Sta. 005-Tank 6	Fiberglass-Lined Redwood	100,000 (inactive)
Sta. 005-Tank 8	Steel	250,000
Sta. 005-Tank 9	Steel	1,000,000
Sta. 006-Tank 1	Steel	200,000
Sta. 007-Tank 5	Fiberglass-Lined Redwood	100,000
Sta. 015-Tank 1	Fiberglass-Lined Redwood	30,000
Sta. 016-Res.1	Steel	1,000,000
Sta. 017-Tank 1	Steel	250,000
Sta. 019-Tank 1	Steel	500,000
Sta. 019-Tank 2	Steel	500,000
Sta. 021-Tank 1	Steel	1,000,000
Sta. 021-Tank 2	Steel	1,000,000
Sta. 022-Tank 1	Steel	450,000
Sta. 025-Tank 1	Fiberglass-Lined Redwood	100,000
Sta. 027-Tank 4	Steel	750,000
Sta. 028-Tank 1	Steel	200,000

Designation	Type	Capacity (gallons)
Sta. 029-Tank 1	Fiberglass-Lined Redwood	100,000
Sta. 029-Tank 2	Fiberglass-Lined Redwood	100,000
Sta. 029-Tank 3	Steel	150,000
Sta. 030-Tank 1	Steel	1,000,000
Sta. 031-Tank 2	Steel	165,000
Sta. 032-Tank 1	Steel	250,000
Sta. 033-Tank 1	Steel	10,000
Sta. 034-Tank 1	Steel	75,000
Sta. 036-Tank 1	Steel	125,000
Sta. 037-Tank 1	Steel	55,000
Sta. 038-Tank 1	Steel	212,000
Sta. 039-Tank 1	Steel	282,000
Sta. 041-Tank 1	Steel	189,000
Sta. 041-Tank 2	Steel	192,000
Sta. 042-Tank 1	Steel	60,000
Sta. 042-Tank 2	Steel	60,000
Sta. 047-Tank 1	Steel	80,376
Sta. 047-Tank 2	Steel	80,376

**Total** 226,177,752

\* 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	138,419
Number of Accounts	35,847
Number of SF RWS Connections	8
Connections to SF RWS Mains	Bay Crossing 1 and 2, BDPL 1 and 2, Crystal Springs #2, Sunset Pipeline
Avg. Day Demand (mgd)	12.28
Avg. Day Purchases from SF RWS (mgd)	12.28
% 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 15-16 (ccf)</b>	<b>Actual FY 16-17 (ccf)</b>	<b>Actual FY 17-18 (ccf)</b>	<b>Actual FY 18-19 (ccf)</b>
San Francisco Water	5,325,284	5,539,001	6,083,059	5,991,673
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>5,325,284</b>	<b>5,539,001</b>	<b>6,083,059</b>	<b>5,991,673</b>
<b>mgd equivalent</b>	<b>10.91</b>	<b>11.35</b>	<b>12.47</b>	<b>12.28</b>

**Demand by Sector**

Residential	3,523,247	3,693,419	4,102,976	4,037,865
Commercial/Industrial	1,080,215	1,069,940	1,180,495	1,158,540
Other	324,881	355,830	388,192	376,023
Non-Revenue Water	396,941	419,812	411,396	419,245
<b>Total</b>	<b>5,325,284</b>	<b>5,539,001</b>	<b>6,083,059</b>	<b>5,991,673</b>
<b>mgd equivalent</b>	<b>10.91</b>	<b>11.35</b>	<b>12.47</b>	<b>12.28</b>

<b>Per Capita Use</b>	<b>Actual FY 15-16 (gpcpd)</b>	<b>Actual FY 16-17 (gpcpd)</b>	<b>Actual FY 17-18 (gpcpd)</b>	<b>Actual FY 18-19 (gpcpd)</b>
Residential	54	56	62	61
Gross	82	84	92	89

**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

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

**San Mateo Total** 14,656,000

**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)
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	62,894
Number of Accounts	16,383
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)	6.04
Avg. Day Purchases from SF RWS (mgd)	4.67
% 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. Currently, Cal Water's wells are offline due to participation in the SFPUC in lieu program. Approximately 20% of the demand can be met by groundwater pumping when SFPUC RWS surface supply is limited. 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 15-16 (ccf)</b>	<b>Actual FY 16-17 (ccf)</b>	<b>Actual FY 17-18 (ccf)</b>	<b>Actual FY 18-19 (ccf)</b>
SF RWS - Customary	2,394,025	2,193,604	2,374,361	2,277,038
SF RWS - Supplemental	38,981	668,470	668,470	668,470
Local Groundwater	511,717	0	0	0
Surface Water	0	0	0	0
Recycled Water	0	0	0	0
Other	0	0	0	0
<b>Total</b>	<b>2,944,723</b>	<b>2,862,074</b>	<b>3,042,831</b>	<b>2,945,508</b>
<b>mgd equivalent</b>	<b>6.03</b>	<b>5.87</b>	<b>6.24</b>	<b>6.04</b>

**Demand by Sector**

Residential	1,157,906	1,182,800	1,226,444	1,226,738
Commercial/Industrial	1,627,433	1,555,853	1,664,103	1,361,300
Other	92,474	92,621	123,328	125,602
Non-Revenue Water	66,910	30,800	28,956	231,868
<b>Total</b>	<b>2,944,723</b>	<b>2,862,074</b>	<b>3,042,831</b>	<b>2,945,508</b>
<b>mgd equivalent</b>	<b>6.03</b>	<b>5.87</b>	<b>6.24</b>	<b>6.04</b>

<b>Per Capita Use</b>	<b>Actual FY 15-16 (gpcpd)</b>	<b>Actual FY 16-17 (gpcpd)</b>	<b>Actual FY 17-18 (gpcpd)</b>	<b>Actual FY 18-19 (gpcpd)</b>
Residential	39	39	41	40
Gross	99	95	101	89

**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	Destroyed
Well 15	95	Destroyed
Well 17	200	Destroyed
Well 18	340	Inactive
Well 19	160	Active
Well 20	150	Active
Well 21	220	Active
Well 22	295	Active
Well 23	300	Active
Well 24	380	Active
<b>Total</b>	1,505	(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	16,811
Number of Accounts	7,586
Number of SF RWS Connections	2
Connections to SF RWS Mains	Crystal Springs Intake and Stone Dam (Pilarcitos Lake)
Avg. Day Demand (mgd)	1.79
Avg. Day Purchases from SF RWS (mgd)	1.12
% Demand Met with SF RWS Supplies	63%
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; (1) Pilarcitos Lake at Stone Dam, (2) Crystal Springs Reservoir, (3) the Pilarcitos Creek Infiltration Well Field, and (4) the Denniston (groundwater and surface water) Project. Water purchased from the SF RWS is supplied from two different raw water sources: Pilarcitos Lake at Stone Dam and Upper Crystal Springs Reservoir.

Raw water from Upper Crystal Springs Reservoir, Pilarcitos Lake at Stone Dam and the Pilarcitos Creek Infiltration Wells terminate at the Nunes Water Treatment Plant. Raw water from Denniston Creek and the Denniston Well Field terminate at the Denniston Water Treatment Plant.

**Water Supply and Demand**

<b>Supply by Source</b>	<b>Actual FY 15-16 (ccf)</b>	<b>Actual FY 16-17 (ccf)</b>	<b>Actual FY 17-18 (ccf)</b>	<b>Actual FY 18-19 (ccf)</b>
San Francisco Water	575,225	515,655	464,037	547,861
Local Groundwater	2,006	10,227	29,278	10,508
Surface Water	240,108	286,685	408,890	314,412
Recycled Water	0	0	0	0
<b>Total</b>	<b>817,399</b>	<b>812,567</b>	<b>902,206</b>	<b>872,781</b>
<b>mgd equivalent</b>	<b>1.67</b>	<b>1.67</b>	<b>1.85</b>	<b>1.79</b>

**Demand by Sector**

Residential	423,998	427,958	464,899	446,167
Commercial/Industrial	123,773	44,685	46,566	48,065
Other	95,609	90,426	165,626	266,457
Dedicated Irrigation	101,460	175,193	136,865	41,335
Non-Revenue Water	72,499	74,305	88,250	70,757
<b>Total</b>	<b>817,339</b>	<b>812,567</b>	<b>902,206</b>	<b>872,781</b>
<b>mgd equivalent</b>	<b>1.67</b>	<b>1.67</b>	<b>1.85</b>	<b>1.79</b>

<b>Per Capita Use</b>	<b>Actual FY 15-16 (gpcpd)</b>	<b>Actual FY 16-17 (gpcpd)</b>	<b>Actual FY 17-18 (gpcpd)</b>	<b>Actual FY 18-19 (gpcpd)</b>
Residential	52	53	57	54
Gross	100	100	110	78

**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
<b>Total</b>		<b>8.00</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

\*\*Surface water infiltration wells

## 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	23,133
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)	6.24
Avg. Day Purchases from SF RWS (mgd)	5.86
% Demand Met with SF RWS Supplies	94%
Maximum Local Water Production (mgd)	3.43
Alternative Supply Sources	Local Groundwater, Recycled Water
Interties with Other Agencies	GVMID, 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 15-16 (ccf)</b>	<b>Actual FY 16-17 (ccf)</b>	<b>Actual FY 17-18 (ccf)</b>	<b>Actual FY 18-19 (ccf)</b>
San Francisco Water	2,152,800	1,867,312	1,717,837	1,804,183
SF RWS Supplemental Water	146,803	1,041,345	1,060,963	1,055,309
Local Groundwater	750,309	0	0	0
Recycled Water	91,882	259,062	276,321	186,618
<b>Total</b>	<b>3,141,794</b>	<b>3,167,719</b>	<b>3,055,121</b>	<b>3,046,110</b>
<b>mgd equivalent</b>	<b>6.44</b>	<b>6.49</b>	<b>6.26</b>	<b>6.24</b>

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

**Demand by Sector**

Residential	2,129,965	2,170,365	2,191,793	2,228,808
Commercial/Industrial	414,229	403,779	397,010	405,051
Other	107,583	69,008	36,395	25,502
Dedicated Irrigation	49,839	294,993	74,738	61,466
Non-Revenue Water	440,178	229,574	355,185	325,283
<b>Total</b>	<b>3,141,794</b>	<b>3,167,719</b>	<b>3,055,121</b>	<b>3,046,110</b>
<b>mgd equivalent</b>	<b>6.44</b>	<b>6.49</b>	<b>6.26</b>	<b>6.24</b>

<b>Per Capita Use</b>	<b>Actual FY 15-16 (gpcpd)</b>	<b>Actual FY 16-17 (gpcpd)</b>	<b>Actual FY 17-18 (gpcpd)</b>	<b>Actual FY 18-19 (ccf)</b>
Residential	40	41	41	42
Gross (Less Recycled Water)	57	55	52	51

**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	3,978
Number of SF RWS Connections	3
Connections to SF RWS Mains	BDPL 1 and 2
Avg. Day Demand (mgd)	1.56
Avg. Day Purchases from SF RWS (mgd)	1.56
% 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" pipeline 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.

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 15-16 (ccf)</b>	<b>Actual FY 16-17 (ccf)</b>	<b>Actual FY 17-18 (ccf)</b>	<b>Actual FY 18-19 (ccf)</b>
San Francisco Water	690,728	734,911	772,528	763,315
Resale SF RWS (Menlo Park)	0	0	0	0
Local Groundwater	0	0	0	0
Recycled Water	0	0	0	0
Other	0	0	0	0
<b>Total</b>	<b>690,728</b>	<b>734,911</b>	<b>772,528</b>	<b>763,315</b>
<b>mgd equivalent</b>	<b>1.42</b>	<b>1.51</b>	<b>1.58</b>	<b>1.56</b>

**Demand by Sector**

Residential	615,001	523,703	521,090	487,190
Commercial/Industrial	67,549	125,874	142,101	265,076
Other	58	12,304	16,082	11,049
Non-Revenue Water	8,120	73,030	93,255	0
<b>Total</b>	<b>690,728</b>	<b>734,911</b>	<b>772,528</b>	<b>763,315</b>
<b>mgd equivalent</b>	<b>1.42</b>	<b>1.51</b>	<b>1.58</b>	<b>1.56</b>

<b>Per Capita Use</b>	<b>Actual FY 15-16 (gpcpd)</b>	<b>Actual FY 16-17 (gpcpd)</b>	<b>Actual FY 17-18 (gpcpd)</b>	<b>Actual FY 18-19 (gpcpd)</b>
Residential	52	41	41	38
Gross	58	58	60	60

**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	37,861
Number of Accounts	8,152
Number of SF RWS Connections	1
Connections to SF RWS Mains	Crystal Springs #2
Avg. Day Demand (mgd)	4.04
Avg. Day Purchases from SF RWS (mgd)	4.04
% 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 15-16 (ccf)</b>	<b>Actual FY 16-17 (ccf)</b>	<b>Actual FY 17-18 (ccf)</b>	<b>Actual FY 18-19 (ccf)</b>
San Francisco Water	1,728,029	1,874,751	2,068,753	1,969,663
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>1,768,029</b>	<b>1,874,751</b>	<b>2,068,753</b>	<b>1,969,663</b>
<b>mgd equivalent</b>	<b>3.62</b>	<b>3.84</b>	<b>4.24</b>	<b>4.04</b>

**Demand by Sector**

Residential	1,007,662	1,045,227	1,113,272	1,096,526
Commercial/Industrial	217,524	213,328	236,286	221,853
Other	27,954	27,720	28,093	28,313
Dedicated Irrigation	351,772	381,425	503,058	520,452
Non-Revenue Water	163,117	207,051	188,044	102,519
<b>Total</b>	<b>1,768,029</b>	<b>1,874,751</b>	<b>2,068,753</b>	<b>1,969,663</b>
<b>mgd equivalent</b>	<b>3.62</b>	<b>3.84</b>	<b>4.24</b>	<b>4.04</b>

<b>Per Capita Use</b>	<b>Actual FY 15-16 (gpcpd)</b>	<b>Actual FY 16-17 (gpcpd)</b>	<b>Actual FY 17-18 (gpcpd)</b>	<b>Actual FY 18-19 (gpcpd)</b>
Residential	56	57	61	59
Gross	97	102	112	101

**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

Public Works & Utilities 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	160,500
Number of Accounts	38,648
Number of SF RWS Connections	4 (two at each turnout)
Connections to SF RWS Mains	BDPL 1 and 2
Avg. Day Demand (mgd)	13.98
Avg. Day Purchases from SF RWS (mgd)	13.98
% 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 15-16 (ccf)	Actual FY 16-17 (ccf)	Actual FY 17-18 (ccf)	Actual FY 18-19 (ccf)
San Francisco Water	5,979,616	6,281,522	7,101,954	6,821,848
Local Groundwater	0	0	0	0
Recycled Water*	864,321	354,959	313,485	361,987
<b>Total</b>	<b>6,843,937</b>	<b>6,636,481</b>	<b>7,415,439</b>	<b>7,183,835</b>
<b>mgd equivalent</b>	<b>14.03</b>	<b>13.60</b>	<b>15.20</b>	<b>14.72</b>

\*Recycled water delivery includes volumes delivered by Russell City Energy Center (RCEC) and Skywest Golf Course

### Demand by Sector

Residential	3,372,168	3,486,839	3,708,772	3,696,052
Commercial/Industrial	1,371,311	1,291,502	1,507,655	1,647,709
Other	277,018	305,097	415,716	629,273
Dedicated Irrigation	556,161	540,224	784,722	807,220
Non-Revenue Water	402,958	657,860	685,089	41,594
<b>Total</b>	<b>5,979,616</b>	<b>6,281,522</b>	<b>7,101,954</b>	<b>6,821,848</b>
<b>mgd equivalent</b>	<b>12.25</b>	<b>12.87</b>	<b>14.55</b>	<b>13.98</b>

Per Capita Use	Actual FY 15-16 (gpcpd)	Actual FY 16-17 (gpcpd)	Actual FY 17-18 (gpcpd)	Actual FY 18-19 (gpcpd)
Residential	43	45	47	47
Gross	77	81	91	82

### 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**

<b>Name</b>	<b>Capacity (mgd)</b>	<b>Status</b>
Well A	1.7	Standby (Emergency)
Well B*	2.9	Standby (Emergency)
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	4,312
Number of SF RWS Connections	9 Turnouts, 12 meters
Connections to SF RWS Mains	Crystal Springs #2, Sunset Pipeline
Avg. Day Demand (mgd)	2.31
Avg. Day Purchases from SF RWS (mgd)	2.31
% 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 15-16 (ccf)</b>	<b>Actual FY 16-17 (ccf)</b>	<b>Actual FY 17-18 (ccf)</b>	<b>Actual FY 18-19 (ccf)</b>
San Francisco Water	1,050,944	1,139,003	1,234,547	1,124,778
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>1,050,944</b>	<b>1,139,003</b>	<b>1,234,547</b>	<b>1,124,778</b>
<b>mgd equivalent</b>	<b>2.15</b>	<b>2.33</b>	<b>2.53</b>	<b>2.31</b>

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

Residential	883,507	975,463	1,119,178	1,041,123
Commercial/Industrial	5,637	4,567	5,574	5,418
Institutional/Other	10,992	12,364	17,058	13,670
Dedicated Irrigation	17,607	16,965	22,327	20,300
Non-Revenue Water	133,201	129,644	70,410	44,267
<b>Total</b>	<b>1,050,944</b>	<b>1,139,003</b>	<b>1,234,547</b>	<b>1,124,778</b>
<b>mgd equivalent</b>	<b>2.15</b>	<b>2.33</b>	<b>2.53</b>	<b>2.31</b>

<b>Per Capita Use</b>	<b>Actual FY 15-16 (gpcpd)</b>	<b>Actual FY 16-17 (gpcpd)</b>	<b>Actual FY 17-18 (gpcpd)</b>	<b>Actual FY 18-19 (gpcpd)</b>
Residential	167	184	211	196
Gross	198	215	233	204

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  
 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	17,648
Number of Accounts	4,366
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)	2.84
Avg. Day Purchases from SF RWS (mgd)	2.84
% 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
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. 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, and East Palo Alto. CWS is the primary emergency source of water for Menlo Park.

**Water Supply and Demand**

<b>Supply by Source</b>	<b>Actual FY 15-16 (ccf)</b>	<b>Actual FY 16-17 (ccf)</b>	<b>Actual FY 17-18 (ccf)</b>	<b>Actual FY 18-19 (ccf)</b>
San Francisco Water	1,074,516	1,153,760	1,393,425	1,383,605
Resale SF RWS Purchase	0	0	0	0
Other	0	0	0	0
<b>Total</b>	<b>1,074,516</b>	<b>1,153,760</b>	<b>1,393,425</b>	<b>1,383,605</b>
<b>mgd equivalent</b>	<b>2.20</b>	<b>2.36</b>	<b>2.86</b>	<b>2.84</b>

**Demand by Sector**

Residential	469,556	509,673	563,673	525,857
Commercial/Industrial	444,993	541,163	506,000	531,748
Other	55,167	63,640	80,463	83,394
Dedicated Irrigation	1,011	133,276	158,074	158,041
Non-Revenue Water	103,789	-93,992	85,215	84,565
<b>Total</b>	<b>1,074,516</b>	<b>1,153,760</b>	<b>1,393,425</b>	<b>1,383,605</b>
<b>mgd equivalent</b>	<b>2.20</b>	<b>2.36</b>	<b>2.86</b>	<b>2.84</b>

<b>Per Capita Use</b>	<b>Actual FY 15-16 (gpcpd)</b>	<b>Actual FY 16-17 (gpcpd)</b>	<b>Actual FY 17-18 (gpcpd)</b>	<b>Actual FY 18-19 (gpcpd)</b>
Residential	60	65	68	61
Gross	137	147	167	161

**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

## 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	8,019
Number of SF RWS Connections	2
Connections to SF RWS Mains	BDPL 1 and 2, Crystal Springs Bypass Tunnel
Avg. Day Demand (mgd)	2.50
Avg. Day Purchases from SF RWS (mgd)	2.50
% Demand Met with SF RWS Supplies	100%
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 15-16 (ccf)</b>	<b>Actual FY 16-17 (ccf)</b>	<b>Actual FY 17-18 (ccf)</b>	<b>Actual FY 18-19 (ccf)</b>
San Francisco Water	1,076,654	1,134,389	1,221,454	1,220,573
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>1,076,654</b>	<b>1,134,389</b>	<b>1,221,454</b>	<b>1,220,573</b>
<b>mgd equivalent</b>	<b>2.21</b>	<b>2.32</b>	<b>2.50</b>	<b>2.50</b>

**Demand by Sector**

Residential	732,057	769,601	838,748	818,122
Commercial/Industrial	219,557	222,735	201,081	214,662
Other	64,982	61,447	29,635	35,620
Dedicated Irrigation	0	1,200	85,637	79,886
Non-Revenue Water	60,058	79,406	66,353	72,283
<b>Total</b>	<b>1,076,654</b>	<b>1,134,389</b>	<b>1,221,454</b>	<b>1,220,573</b>
<b>mgd equivalent</b>	<b>2.21</b>	<b>2.32</b>	<b>2.50</b>	<b>2.50</b>

<b>Per Capita Use</b>	<b>Actual FY 15-16 (gpcpd)</b>	<b>Actual FY 16-17 (gpcpd)</b>	<b>Actual FY 17-18 (gpcpd)</b>	<b>Actual FY 18-19 (gpcpd)</b>
Residential	56	59	64	62
Gross	82	86	93	87

**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	23,168
Number of Accounts	6,424
Number of SF RWS Connections	5
Connections to SF RWS Mains	Murchison, Greenhills, Park, 195 ECR, Helen
Avg. Day Demand (mgd)	1.95
Avg. Day Purchases from SF RWS (mgd)	1.95
% Demand Met with SF RWS Supplies	100%
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 15-16 (ccf)</b>	<b>Actual FY 16-17 (ccf)</b>	<b>Actual FY 17-18 (ccf)</b>	<b>Actual FY 18-19 (ccf)</b>
San Francisco Water	899,785	918,695	992,853	949,277
Local Groundwater	0	0	0	0
Surface Water	0	0	0	0
Recycled Water	0	12,000	12	12
Other	0	0	0	0
<b>Total</b>	<b>899,785</b>	<b>930,695</b>	<b>992,865</b>	<b>949,289</b>
<b>mgd equivalent</b>	<b>1.84</b>	<b>1.91</b>	<b>2.03</b>	<b>1.95</b>

**Demand by Sector**

Residential	542,393	570,181	611,413	598,836
Commercial/Industrial	162,215	158,303	154,123	169,181
Other	28,293	29,353	37,467	37,590
Dedicated Irrigation	47,125	52,420	78,080	63,924
Non-Revenue Water	119,759	120,438	111,782	79,758
<b>Total</b>	<b>899,785</b>	<b>930,695</b>	<b>992,865</b>	<b>949,289</b>
<b>mgd equivalent</b>	<b>1.84</b>	<b>1.91</b>	<b>2.03</b>	<b>1.95</b>

<b>Per Capita Use</b>	<b>Actual FY 15-16 (gpcpd)</b>	<b>Actual FY 16-17 (gpcpd)</b>	<b>Actual FY 17-18 (gpcpd)</b>	<b>Actual FY 18-19 (gpcpd)</b>
Residential	49	51	55	53
Gross (less recycled water)	81	82	89	77

**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	74,865
Number of Accounts	16,523
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)	9.14
Avg. Day Purchases from SF RWS (mgd)	5.30
% Demand Met with SF RWS Supplies	58%
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**

Supply by Source	Actual FY 15-16 (ccf)	Actual FY 16-17 (ccf)	Actual FY 17-18 (ccf)	Actual FY 18-19 (ccf)
San Francisco Water	2,215,396	2,391,431	2,538,687	2,585,031
Santa Clara Valley WD	1,485,678	1,406,074	1,378,578	1,385,528
Recycled Water	329,206	361,682	490,724	489,032
Other	0	0	0	0
<b>Total</b>	<b>4,030,280</b>	<b>4,159,187</b>	<b>4,407,989</b>	<b>4,459,591</b>
<b>mgd equivalent</b>	<b>8.26</b>	<b>8.52</b>	<b>9.03</b>	<b>9.14</b>

**Demand by Sector**

Residential	1,718,291	1,797,145	2,103,592	1,977,850
Commercial/Industrial	1,106,090	1,036,659	1,036,680	1,060,313
Other	109,428	128,539	138,794	144,921
Dedicated Irrigation	637,919	730,235	963,856	943,171
Non-Revenue Water	458,552	466,609	165,067	333,336
<b>Total</b>	<b>4,030,280</b>	<b>4,159,187</b>	<b>4,407,989</b>	<b>4,459,591</b>
<b>mgd equivalent</b>	<b>8.26</b>	<b>8.52</b>	<b>9.03</b>	<b>9.14</b>

Per Capita Use	Actual FY 15-16 (gpcpd)	Actual FY 16-17 (gpcpd)	Actual FY 17-18 (gpcpd)	Actual FY 18-19 (gpcpd)
Residential	47	48	55	54
Gross (Less Recycled Water)	100	100	103	113

**Facilities and Distribution**

**Storage Reservoirs**

Designation	Type	Capacity (mg)
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**

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

\*Emergency use

**Interties**

Name	No.	Diameter (in.)
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	79,492
Number of Accounts	17,489
Number of SF RWS Connections	3 turnouts/ 9 meters
Connections to SF RWS Mains	BDPL 3 and 4
Avg. Day Demand (mgd)	8.65
Avg. Day Purchases from SF RWS (mgd)	7.21
% Demand Met with SF RWS Supplies	83%
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 15-16 (ccf)</b>	<b>Actual FY 16-17 (ccf)</b>	<b>Actual FY 17-18 (ccf)</b>	<b>Actual FY 18-19 (ccf)</b>
San Francisco Water	3,305,780	3,485,016	3,617,700	3,519,587
Santa Clara Valley WD	298,782	391,915	428,455	435,348
Local Groundwater	48,897	54,628	49,973	105,363
Recycled Water	201,357	193,460	197,365	160,299
<b>Total</b>	<b>3,854,816</b>	<b>4,125,019</b>	<b>4,293,493</b>	<b>4,220,597</b>
<b>mgd equivalent</b>	<b>7.90</b>	<b>8.45</b>	<b>8.80</b>	<b>8.65</b>

**Demand by Sector**

Residential	2,082,952	2,175,622	2,333,365	2,275,480
Commercial/Industrial	783,051	755,605	777,451	782,463
Other	7,066	9,904	13,672	1,446
Dedicated Irrigation	756,193	773,367	996,185	970,445
Non-Revenue Water*	225,554	410,521	172,820	190,763
<b>Total</b>	<b>3,854,816</b>	<b>4,125,019</b>	<b>4,293,493</b>	<b>4,220,597</b>
<b>mgd equivalent</b>	<b>7.90</b>	<b>8.45</b>	<b>8.80</b>	<b>8.65</b>

<b>Per Capita Use</b>	<b>Actual FY 15-16 (gpcpd)</b>	<b>Actual FY 16-17 (gpcpd)</b>	<b>Actual FY 17-18 (gpcpd)</b>	<b>Actual FY 18-19 (gpcpd)</b>
Residential	57	57	61	59
Gross	99	104	106	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	12,526
Number of SF RWS Connections	1
Connections to SF RWS Mains	San Andreas 3
Avg. Day Demand (mgd)	2.34
Avg. Day Purchases from SF RWS (mgd)	2.29
% Demand Met with SF RWS Supplies	98%
Maximum Local Water Production (mgd)	0
Alternative Supply Sources	Local Surface Water; Recycled 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**

<b>Supply by Source</b>	<b>Actual FY 15-16 (ccf)</b>	<b>Actual FY 16-17 (ccf)</b>	<b>Actual FY 17-18 (ccf)</b>	<b>Actual FY 18-19 (ccf)</b>
San Francisco Water	900,293	1,089,419	1,169,151	1,119,762
Westborough CWD (SF RWS)	0	0	0	0
Recycled Water	13,788	15,787	0	22,277
Other	0	0	0	0
<b>Total</b>	<b>914,081</b>	<b>1,105,206</b>	<b>1,169,151</b>	<b>1,142,039</b>
<b>mgd equivalent</b>	<b>1.87</b>	<b>2.26</b>	<b>2.40</b>	<b>2.34</b>

**Demand by Sector**

Residential	828,122	813,927	856,462	826,999
Commercial/Industrial	91,672	91,672	100,196	93,884
Other	47,161	56,333	68,359	58,796
Dedicated Irrigation	22,785	23,205	58,424	28,819
Non-Revenue Water	-75,659	120,069	85,710	133,541
<b>Total</b>	<b>914,081</b>	<b>1,105,206</b>	<b>1,169,151</b>	<b>1,142,039</b>
<b>mgd equivalent</b>	<b>1.87</b>	<b>2.26</b>	<b>2.40</b>	<b>2.34</b>

<b>Per Capita Use</b>	<b>Actual FY 15-16 (gpcpd)</b>	<b>Actual FY 16-17 (gpcpd)</b>	<b>Actual FY 17-18 (gpcpd)</b>	<b>Actual FY 18-19 (gpcpd)</b>
Residential	42	42	44	42
Gross	46	56	60	53

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

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

**Water Treatment Facilities:****Surface Water**

<b>Designation</b>	<b>Capacity (mgd)</b>
San Pedro WTP	0.5

**Recycled Water**

<b>Designation</b>	<b>Capacity (mgd)</b>
Central District	0.3

**Interties**

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

<b>Name</b>	<b>No.</b>	<b>Diameter (in.)</b>
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, wastewater 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	67,709
Number of Accounts	20,126
Number of SF RWS Connections	5
Connections to SF RWS Mains	Palo Alto Pipeline, BDPL 3 and 4
Avg. Day Demand (mgd)	10.18
Avg. Day Purchases from SF RWS (mgd)	9.43
% Demand Met with SF RWS Supplies	93%
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 15-16 (ccf)	Actual FY 16-17 (ccf)	Actual FY 17-18 (ccf)	Actual FY 18-19 (ccf)
San Francisco Water	4,006,084	4,382,560	4,859,576	4,600,990
Local Groundwater	0	0	0	0
Recycled Water	350,847	289,668	392,913	368,841
Other	0	0	0	0
<b>Total</b>	<b>4,356,931</b>	<b>4,672,228</b>	<b>5,252,489</b>	<b>4,969,831</b>
<b>mgd equivalent</b>	<b>8.93</b>	<b>9.57</b>	<b>10.76</b>	<b>10.18</b>

### Demand by Sector

Residential	2,253,313	2,444,032	2,850,950	2,758,658
Commercial/Industrial	954,961	980,450	894,383	866,038
Other	583,581	543,728	678,658	674,653
Dedicated Irrigation	368,711	416,340	578,817	480,699
Non-Revenue Water	196,365	287,678	249,681	189,517
<b>Total</b>	<b>4,356,931</b>	<b>4,672,228</b>	<b>5,252,489</b>	<b>4,969,831</b>
<b>mgd equivalent</b>	<b>8.93</b>	<b>9.57</b>	<b>10.76</b>	<b>10.18</b>

Per Capita Use	Actual FY 15-16 (gpcpd)	Actual FY 16-17 (gpcpd)	Actual FY 17-18 (gpcpd)	Actual FY 18-19 (gpcpd)
Residential	68	75	87	84
Gross (Less Recycled Water)	121	134	148	145

### 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	2,202
Number of SF RWS Connections	2
Connections to SF RWS Mains	BDPL 3 and 4
Avg. Day Demand (mgd)	1.58
Avg. Day Purchases from SF RWS (mgd)	1.58
% Demand Met with SF RWS Supplies	100%
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 15-16 (ccf)</b>	<b>Actual FY 16-17 (ccf)</b>	<b>Actual FY 17-18 (ccf)</b>	<b>Actual FY 18-19 (ccf)</b>
San Francisco Water	640,369	689,261	814,270	770,703
Recycled Water	0	0	0	0
Other	0	0	0	0
<b>Total</b>	<b>640,369</b>	<b>689,261</b>	<b>814,270</b>	<b>770,703</b>
<b>Mgd equivalent</b>	<b>1.31</b>	<b>1.41</b>	<b>1.67</b>	<b>1.58</b>

**Demand by Sector**

Residential	591,604	627,686	715,387	672,238
Commercial/Industrial	0	0	0	0
Other	24,255	37,137	43,425	54,239
Dedicated Irrigation	5,061	0	4,888	4,508
Non-Revenue Water	19,449	24,438	50,570	39,718
<b>Total</b>	<b>640,369</b>	<b>689,261</b>	<b>814,270</b>	<b>770,703</b>
<b>Mgd equivalent</b>	<b>1.31</b>	<b>1.41</b>	<b>1.67</b>	<b>1.58</b>

<b>Per Capita Use</b>	<b>Actual FY 15-16 (gpcpd)</b>	<b>Actual FY 16-17 (gpcpd)</b>	<b>Actual FY 17-18 (gpcpd)</b>	<b>Actual FY 18-19 (gpcpd)</b>
Residential	197	209	283	224
Gross	213	230	271	240

**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

Public Works Services Department  
 1400 Broadway  
 Redwood City, California 94063-2505  
 Phone: (650) 780-7464 Fax: (650) 780-7445  
 Web: <http://www.redwoodcity.org/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	87,023
Number of Accounts	23,623
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)	8.70
Avg. Day Purchases from SF RWS (mgd)	8.08
% 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. Seven of the turnouts are located off Bay Division Pipelines 1, 2 and 5; one turnout is off BDPL 1, 2, 3, and 5; and five turnouts are off BDPL 3 and 4.

The distribution system consists of 25 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 10 emergency interties with California Water Service Bear Gulch and Mid-Peninsula Districts, Mid-Peninsula Water District, and the City of Menlo Park.

**Water Supply and Demand**

<b>Supply by Source</b>	<b>Actual FY 15-16 (ccf)</b>	<b>Actual FY 16-17 (ccf)</b>	<b>Actual FY 17-18 (ccf)</b>	<b>Actual FY 18-19 (ccf)</b>
San Francisco Water	3,508,414	3,820,098	4,130,668	3,943,761
Recycled Water	282,017	294,771	331,757	302,909
Other	0	0	0	0
<b>Total</b>	<b>3,790,431</b>	<b>4,114,869</b>	<b>4,462,425</b>	<b>4,246,670</b>
<b>mgd equivalent</b>	<b>7.77</b>	<b>8.43</b>	<b>9.14</b>	<b>8.70</b>

**Demand by Sector**

Residential	2,245,955	2,399,189	2,614,393	2,569,896
Commercial/Industrial	748,298	703,482	723,900	701,754
Other	73,591	72,007	76,353	79,627
Dedicated Irrigation	473,004	502,184	611,365	594,772
Non-Revenue Water	249,583	438,007	436,414	300,621
<b>Total</b>	<b>3,790,431</b>	<b>4,114,869</b>	<b>4,462,425</b>	<b>4,246,670</b>
<b>mgd equivalent</b>	<b>7.77</b>	<b>8.43</b>	<b>9.14</b>	<b>8.70</b>

<b>Per Capita Use</b>	<b>Actual FY 15-16 (gpcpd)</b>	<b>Actual FY 16-17 (gpcpd)</b>	<b>Actual FY 17-18 (gpcpd)</b>	<b>Actual FY 18-19 (gpcpd)</b>
Residential	53	57	62	61
Gross (Less Recycled Water)	83	90	97	91

**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>
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**

<b>Name</b>	<b>No.</b>	<b>Diameter (in.)</b>
CWS – Bear Gulch	2	6, 6
CWS – Mid-Peninsula	4	8, 8, 8, 12
CWS – Mid-Peninsula	2	Hydrant to Hydrant
Menlo Park	1	Hydrant to Hydrant
Mid-Pen WD	1	12



## 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	11,455
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)	2.82
Avg. Day Purchases from SF RWS (mgd)	2.49
% Demand Met with SF RWS Supplies	88%
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 15-16 (ccf)</b>	<b>Actual FY 16-17 (ccf)</b>	<b>Actual FY 17-18 (ccf)</b>	<b>Actual FY 18-19 (ccf)</b>
SF RWS - Customary	637,586	383,693	419,589	420,116
SF RWS - Supplemental	83,663	895,413	890,214	793,401
Local Groundwater	777,032	129,317	155,341	139,612
Surface Water	0	0	0	0
Recycled Water	0	0	0	0
Other (North Coast CWD)	21,622	21,121	23,411	21,622
<b>Total</b>	<b>1,519,903</b>	<b>1,429,544</b>	<b>1,488,555</b>	<b>1,374,751</b>
<b>mgd equivalent</b>	<b>3.11</b>	<b>2.93</b>	<b>3.05</b>	<b>2.82</b>

**Demand by Sector**

Residential	1,022,388	974,044	944,938	1,032,586
Commercial/Industrial	285,374	55,469	271,679	269,983
Other	60,761	58,938	67,522	72,182
Non-Revenue Water	151,380	341,093	204,416	0
<b>Total</b>	<b>1,519,903</b>	<b>1,429,544</b>	<b>1,488,555</b>	<b>1,374,751</b>
<b>mgd equivalent</b>	<b>3.11</b>	<b>2.93</b>	<b>3.05</b>	<b>2.82</b>

<b>Per Capita Use</b>	<b>Actual FY 15-16 (gpcpd)</b>	<b>Actual FY 16-17 (gpcpd)</b>	<b>Actual FY 17-18 (gpcpd)</b>	<b>Actual FY 18-19 (gpcpd)</b>
Residential	47	45	47	48
Gross	70	66	69	63

**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	16,084
Number of Accounts	2,365
Number of SF RWS Connections	2
Connections to SF RWS Mains	BDPL 3 and 4
Avg. Day Demand (mgd)	5.15 Potable and Recycled
Avg. Day Purchases from SF RWS (mgd)	4.27
% Demand Met with SF RWS Supplies	83%
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 15-16 (ccf)</b>	<b>Actual FY 16-17 (ccf)</b>	<b>Actual FY 17-18 (ccf)</b>	<b>Actual FY 18-189 (ccf)</b>
San Francisco Water	1,997,596	2,024,785	2,208,892	2,084,721
Local Groundwater	29,465	0	0	7,335
Recycled Water	364,746	0	418,060	421,131
Other	0	300,817	0	0
<b>Total</b>	<b>2,391,807</b>	<b>2,325,602</b>	<b>2,626,952</b>	<b>2,513,187</b>
<b>mgd equivalent</b>	<b>4.90</b>	<b>4.77</b>	<b>5.38</b>	<b>5.15</b>

**Demand by Sector**

Residential	930,564	773,467	820,295	808,653
Commercial/Industrial	875,508	885,644	1,057,459	985,465
Other	38,774	35,895	30,556	27,188
Dedicated Irrigation	456,091	549,254	1,169,673	717,498
Non-Revenue Water	90,871	81,342	-451,031	-25,617
<b>Total</b>	<b>2,391,807</b>	<b>2,325,602</b>	<b>2,626,952</b>	<b>2,513,187</b>
<b>mgd equivalent</b>	<b>4.90</b>	<b>4.77</b>	<b>5.38</b>	<b>5.15</b>

<b>Per Capita Use</b>	<b>Actual FY 15-16 (gpcpd)</b>	<b>Actual FY 16-17 (gpcpd)</b>	<b>Actual FY 17-18 (gpcpd)</b>	<b>Actual FY 18-19 (gpcpd)</b>
Residential	211	115	105	103
Gross (Less Recycled Water)	459	302	281	322

**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	129,604
Number of Accounts	25,293
Number of SF RWS Connections	2
Connections to SF RWS Mains	BDPL 3 and 4
Avg. Day Demand (mgd)	19.52
Avg. Day Purchases from SF RWS (mgd)	3.02
% Demand Met with SF RWS Supplies	15%
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 15-16 (ccf)</b>	<b>Actual FY 16-17 (ccf)</b>	<b>Actual FY 17-18 (ccf)</b>	<b>Actual FY 18-19 (ccf)</b>
San Francisco Water	1,135,829	970,987	1,039,840	1,474,198
Santa Clara Valley WD	1,901,738	1,920,855	1,971,390	1,966,444
Local Groundwater	4,291,577	4,752,405	5,285,829	4,322,193
Recycled Water	1,488,319	1,497,626	1,660,829	1,760,160
Other	0	0	0	0
<b>Total</b>	<b>8,817,463</b>	<b>9,141,873</b>	<b>9,957,888</b>	<b>9,522,995</b>
<b>mgd equivalent</b>	<b>18.07</b>	<b>18.73</b>	<b>20.41</b>	<b>19.52</b>

**Demand by Sector**

Residential	3,500,320	3,452,426	3,653,811	3,762,834
Commercial/Industrial	3,876,460	3,247,531	4,281,283	4,261,898
Other	941,284	423,860	986,496	1,038,369
Dedicated Irrigation	0	0	0	0
Non-Revenue Water	499,399	2,018,056	1,036,298	459,893
<b>Total</b>	<b>8,817,463</b>	<b>9,141,873</b>	<b>9,957,888</b>	<b>9,522,995</b>
<b>mgd equivalent</b>	<b>18.07</b>	<b>18.73</b>	<b>20.41</b>	<b>19.52</b>

<b>Per Capita Use</b>	<b>Actual FY 15-16 (ccf)</b>	<b>Actual FY 16-17 (ccf)</b>	<b>Actual FY 17-18 (ccf)</b>	<b>Actual FY 18-19 (ccf)</b>
Residential	58	57	58	58
Gross (Less Recycled Water)	124	127	131	144

**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**

<b>Name</b>	<b>Capacity (mgd)</b>	<b>Status</b>	<b>Name</b>	<b>Capacity (mgd)</b>	<b>Status</b>
Well 2-02	2.7	Active	Well 16-02	1.6	Active
Well 3-02	2.6	Active	Well 17-02	2.9	Active
Well 4	1.4	Active	Well 18-02	1.9	Active
Well 5-02	2.3	Active	Well 21	2.6	Active
Well 7	1.7	Active	Well 22-02	1.7	Active
Well 8	1.6	Active	Well 23	2.6	Active
Well 9-02	1.5	Active	Well 24	2.2	Active
Well 10	2.4	Active	Well 25	1.3	Active
Well 11	2.5	Active	Well 26	1.4	Active
Well 12	2.1	Active	Well 28	2.8	Active
Well 13-02	2.4	Active	Well 29	2.7	Active
Well 14	1.6	Active	Well 30	2.0	Active
Well 15	1.2	Active	Well 34	1.4	Active
			<b>Total</b>	<b>55.5</b>	

**Interties**

<b>Name</b>	<b>No.</b>	<b>Diameter (in.)</b>
SCVWD	1	10



## Stanford University

315 Bonair Siding

Stanford, California 94305-7272

Phone: (650) 725-8030 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	32,578*
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)	2.52
Avg. Day Purchases from SF RWS (mgd)	1.43
% Demand Met with SF RWS Supplies	57% (100% of domestic water)
Average Day Local Water Production (mgd)	1.1
Alternative Supply Sources	Local groundwater, surface water, stormwater, construction dewatering, 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 historically 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. Beginning in 2019, the lake water system was also supplied by captured stormwater from the campus. Construction dewatering water is also captured temporarily during active dewatering projects. The lake water system can also be supplied as needed by SF RWS water.

### Water Supply and Demand

Supply by Source	Actual FY 15-16 (ccf)	Actual FY 16-17 (ccf)	Actual FY 17-18 (ccf)	Actual FY 18-19 (ccf)
San Francisco Water	679,394	695,088	725,276	697,159
Local Groundwater	300,686	198,507	241,503	0
Surface Water	93,476	254,967	256,275	0
Other	0	0	41,684	531,006
<b>Total</b>	<b>1,073,556</b>	<b>1,148,562</b>	<b>1,264,738</b>	<b>1,228,165</b>
<b>mgd equivalent</b>	<b>2.20</b>	<b>2.35</b>	<b>2.59</b>	<b>2.52</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. 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. In the FY 2017-18 and FY 2018-19 Annual Survey, additional tracking of captured construction dewatering water for use as irrigation water is also included (other, non-potable alternative water supply).

### Demand by Sector

Residential	347,058	353,241	377,819	380,398
Commercial/Industrial	87,498	66,036	67,986	63,374
Other	140,481	157,835	168,057	169,600
Dedicated Irrigation	442,795	498,566	593,838	572,128
Non-Revenue Water	55,724	72,884	57,039	42,667
<b>Total</b>	<b>1,073,556</b>	<b>1,148,562</b>	<b>1,264,738</b>	<b>1,228,167</b>
<b>mgd equivalent</b>	<b>2.20</b>	<b>2.35</b>	<b>2.59</b>	<b>2.52</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.

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 "Non-Revenue Water" category.

Per Capita Use	Actual FY 15-16 (gpcpd)	Actual FY 16-17 (gpcpd)	Actual FY 17-18 (gpcpd)	Actual FY 18-19 (gpcpd)
Residential	n/a	n/a	n/a	n/a
Gross	71	75	80	77.3

**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
Reservoir 3 (Formally San Juan*)		1,500,000
<b>Total</b>		<b>9,500,000</b>

\*Rehabilitated reservoir was brought into service in November 2019.

**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	153,389
Number of Accounts	28,987
Number of SF RWS Connections	6
Connections to SF RWS Mains	BDPL 3 and 4
Avg. Day Demand (mgd)	16.88
Avg. Day Purchases from SF RWS (mgd)	9.01
% 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 15-16 (ccf)	Actual FY 16-17 (ccf)	Actual FY 17-18 (ccf)	Actual FY 18-19 (ccf)
San Francisco Water	3,894,246	4,066,178	4,435,240	4,394,289
Santa Clara Valley WD	2,858,242	3,458,667	3,734,325	3,560,568
Local Groundwater	65,632	61,977	49,601	40,358
Surface Water	0	0	0	0
Recycled Water	390,696	157,626	114,275	242,246
Other	0	0	0	0
<b>Total</b>	<b>7,208,816</b>	<b>7,744,448</b>	<b>8,333,441</b>	<b>8,237,461</b>
<b>mgd equivalent</b>	<b>14.77</b>	<b>15.87</b>	<b>17.08</b>	<b>16.08</b>

### Demand by Sector

Residential	3,907,240	4,135,875	4,499,086	4,715,659
Commercial/Industrial	1,508,808	1,576,363	1,702,300	1,728,835
Other	2,221,230	371,966	376,643	142,209
Dedicated Irrigation	629,772	1,100,904	916,239	1,427,092
Non-Revenue Water	450,574	559,340	839,172	223,666
<b>Total</b>	<b>7,208,816</b>	<b>7,744,448</b>	<b>8,333,441</b>	<b>8,237,461</b>
<b>mgd equivalent</b>	<b>14.77</b>	<b>15.87</b>	<b>17.08</b>	<b>16.88</b>

Per Capita Use	Actual FY 15-16 (gpcpd)	Actual FY 16-17 (gpcpd)	Actual FY 17-18 (gpcpd)	Actual FY 18-19 (gpcpd)
Residential	54	57	60	63
Gross (Less Recycled Water)	94	104	110	107

### 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>	<b>11.1</b>	

**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	12,703
Number of Accounts	3,888
Number of SF RWS Connections	1
Connections to SF RWS Mains	San Andreas 1, 2, and 3
Avg. Day Demand (mgd)	0.78
Avg. Day Purchases from SF RWS (mgd)	0.78
% Demand Met with SF RWS Supplies	100%
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 15-16 (ccf)</b>	<b>Actual FY 16-17 (ccf)</b>	<b>Actual FY 17-18 (ccf)</b>	<b>Actual FY 18-19 (ccf)</b>
San Francisco Water	390,753	356,722	383,996	379,833
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>390,753</b>	<b>356,722</b>	<b>383,996</b>	<b>379,833</b>
<b>mgd equivalent</b>	<b>0.80</b>	<b>0.73</b>	<b>0.79</b>	<b>0.78</b>

**Demand by Sector**

Residential	288,276	284,986	293,705	281,152
Commercial/Industrial	19,729	26,058	27,315	34,958
Other	0	0	0	0
Dedicated Irrigation	19,690	22,214	40,529	39,384
Non-Revenue Water	63,058	23,464	22,447	24,339
<b>Total</b>	<b>390,753</b>	<b>356,722</b>	<b>383,996</b>	<b>379,833</b>
<b>mgd equivalent</b>	<b>0.80</b>	<b>0.73</b>	<b>0.79</b>	<b>0.78</b>

<b>Per Capita Use</b>	<b>Actual FY 15-16 (gpcpd)</b>	<b>Actual FY 16-17 (gpcpd)</b>	<b>Actual FY 17-18 (gpcpd)</b>	<b>Actual FY 18-19 (gpcpd)</b>
Residential	42	42	47	45
Gross	57	52	62	57

**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