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**6.3. CONJUNCTIVE USE**

As described in Section 4.3.4, between 2002 and 2005 major groundwater users within the southern Westside Basin agreed to reduce their groundwater extraction from the Basin in exchange for additional surface water supplies from SFPUC, as part of a Conjunctive Use Pilot Project. Since the completion of the project in 2005, Daly City and SFPUC have continued with a permanent extension of the project in the area of Daly City. At this time however, agreements for an on-going conjunctive use project between SFPUC and San Bruno have not been negotiated.

**6.4. RECYCLED WATER PROJECTS**

San Bruno does not presently anticipate the use of recycled water in the near future. See Section 7 for a detailed description of the joint San Bruno / South San Francisco 2004 Recycled Water Feasibility Study.

**6.5. OTHER POTENTIAL FUTURE WATER SUPPLY PROJECTS**

At this time, no additional future water supply projects are anticipated by the City of San Bruno.

### **9.2.7 BMP 7 - Public Information**

San Bruno distributes information about water conservation to the public through bill inserts and brochures. The City also maintains a website providing water conservation tips and rebate applications for high-efficiency clothes washers.<sup>29</sup> Information provided by the City includes tips for both indoor water use (e.g., toilets, washers, showers, and leak detection), as well as outdoor water use (e.g., irrigation, xeriscape, ET controllers, etc.). This site is usually maintained by the Water Conservation Coordinator.

### **9.2.8 BMP 8 - School Education**

In 2003 and 2004 San Bruno participated in BAWSCA's "Our Water" school education program. Due to contractor difficulties, however, BAWSCA is not offering the "Our Water" program for the 2005-06 fiscal year. "Our Water" was intended to be a creative and user-friendly approach to water conservation education at the elementary school level developed by Kollage Community School for the Arts in Belmont. "Our Water" was an integrated curriculum that combined water conservation lessons from the Water Education Foundation's "California Water Story" curriculum for 4th grade, with instruction in visual, performing, and literary arts. The "Our Water" curriculum was presented in 50-minute sessions conducted once a week over nine weeks. Each school or class was assigned an arts instructor in visual art, dance, or poetry. Pre- and post-tests were given to students to measure the effectiveness of the program in enhancing their water conservation awareness.

Since discontinuing the "Our Water" school education program in 2005, BAWSCA has implemented a new "Water Wise" conservation and education program that will provide school-age children with water efficient plumbing fixtures and education material in participating communities. Due to changes in staff within the City's Public Works Department, San Bruno was not able to participate in the "Water Wise" program during FY 2005-06, but is considering participation in FY 2006-07.

The City has also facilitated poster competitions for elementary school children since FY 2000-01. Each year contestants submit drawing depicting water conservation. The winning drawing is made into a poster for distribution within the City promoting water conservation education.

### **9.2.9 BMP 9 - Commercial, Industrial, Institutional Accounting**

San Bruno's Finance Department previously tracked water use by customer account using a software program developed by the City of Redwood City. This program allowed the City to track water users in the Commercial, Industrial, and Institutional sectors and identify top consumers, the software program was used primarily for accounting purposes and for triggering leak investigations. As of January 2006, the City has switched to a

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<sup>29</sup> <http://www.sanbrunowater.ca.gov/>

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new accounting software that will facilitate easier tracking of individual CII accounts and enable San Bruno to target these accounts for water conservation purposes.

The City has recently joined a regional program to offer rebates for purchase of high efficiency commercial clothes washers. The program is designed to encourage the replacement of inefficient, top-loading washers in commercial settings with more efficient washers. Between July 2007 and February of 2008, five rebates of \$220 each were awarded by the City of San Bruno.

In addition to the commercial washer rebate program, San Bruno will also be participating in two other regional programs beginning in FY 2008-09 that address water use at CII accounts. BAWSCA's large landscape program will target the highest landscape water users in the City and provide site surveys, monthly water use reporting, and water use budgets to help customers reduce water use. BAWSCA's new high-efficiency toilet rebate program will also be open to CII customers, as described in Section 9.2.14 below.

#### **9.2.10 BMP 10 - Wholesaler Incentives**

This BMP does not apply to San Bruno because San Bruno is not a wholesale water agency.

#### **9.2.11 BMP 11 - Conservation Pricing**

As described in Section 9.2.4, BMP 4- Metering, San Bruno's customers are billed for every 100 cubic feet of water used ("unit"), with an additional fixed monthly service charge according to their meter size. Rates are based on wholesale water prices from SFPUC and the cost of groundwater production and water distribution. A complete list of current water rates is included in Table 21. Customers in the RSF sector are billed at a lower base rate than RMF and CII customers (\$2.75 per unit versus \$2.92 per unit, respectively). The City also institutes an increasing tiered rate structure for RSF accounts (i.e., customers are charged an additional \$0.98 for each unit of water consumed over the accounts base allocation). RMF and CII accounts are not subject to the tiered rate structure.

Additionally, to compensate for revenue losses and the resulting fiscal impacts during periods of water conservation, the City Council maintains the authority to adopt conservation pricing and water use surcharges in times of drought (San Bruno's Municipal Code "SBMC" §10.16.140).

#### **9.2.12 BMP 12 - Conservation Coordinator**

The City currently has a vacancy in its Water Conservation Coordinator position. Included in Appendix G is the advertisement published by the City during its job search. Interviews are ongoing.

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From 2000 through 2004 Phil Hanes served as the City's Water Conservation Coordinator.<sup>30</sup> In addition, the City maintained a student intern through the summer of 2003 to assist Mr. Hanes in his conservation duties. These duties included maintaining the City's water conservation brochures and website,<sup>31</sup> as well as responding to leak investigations and other water conservation activities for the City.

As of March 2008, the City's Water Conservation Coordinator vacancy has not yet been filled. In the interim, conservation-related activities are performed by various other members of the City's staff. Below is a list of the staff members who perform conservation-related activities, followed by the approximate percentage of their job which is dedicated to these duties, in parentheses.

- Deputy Public Works Director for Maintenance & Operations (15%)
- Water Services Manager (25%)
- Management Analyst (10%)

Collectively, these staff members are approximately equivalent to a half-time Water Conservation Coordinator.

### **9.2.13 BMP 13 - Waste Prohibitions**

San Bruno's Water Conservation Plan, outlined in SBMC §10.16, defines and prohibits "non-essential" water uses during times of drought. Section 10.4 describes these prohibitions in further detail. The SBMC §10.16 identifies a variety of activities related to indoor and outdoor water use (e.g., excess landscape watering, indiscriminate running of water that results in runoff into the street or gutter) and empowers City staff to enforce these prohibitions with both civil and criminal penalties (see Section 10.4).

The City's Public Works Department is looking into adopting similar standards that would apply during non-drought times. These prohibitions are expected to be implemented by mid-2009.

### **9.2.14 BMP 14 - Ultra Low Flow Toilets**

San Bruno does not currently institute a water conservation program for ultra low flow toilets. As mentioned in Section 9.2.12, the City's Water Conservation Coordinator position has been vacant since late 2004. Additional turnover in San Bruno's Public Works Department in the past year has also posed additional roadblocks in the Water Conservation Coordinator program, and thus also in the institution of new demand management measures. San Bruno will consider participation in BAWSCA's new regional ultra low flow toilet ("ULFT") replacement program, or implementing an independent rebate program designed and run by City staff, once the Water Conservation Coordinator and other key positions are filled.

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<sup>30</sup> Approximately 50% of Mr. Hanes' duties were conservation oriented.

<sup>31</sup> <http://www.sanbrunowater.ca.gov>

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As of March 2008, BAWSCA's regional ULFT replacement program was canceled due to implementation difficulties. Instead, BAWSCA plans to institute a regional rebate program for high-efficiency toilets, which use even less water than the ULFT options, and will be applicable to both residential and CII customers. The City will participate in this regional program, which is scheduled to begin July 2008. The specific details of the program and steps for implementation are currently in the planning stages.

**9.3. SCHEDULE OF IMPLEMENTATION**

*10631. A plan shall be adopted in accordance with this chapter and shall do all of the following:*

*10631 (f) (2) A schedule of implementation for all water demand management measures proposed or described in the plan.*

San Bruno intends to implement each BMP as described above under the individual subsections.

**9.4. EFFECTIVENESS OF IMPLEMENTATION**

*10631. A plan shall be adopted in accordance with this chapter and shall do all of the following:*

*10631 (f)(3) A description of the methods, if any, that the supplier will use to evaluate the effectiveness of water demand management measures implemented or described under the plan.*

The City does not currently evaluate the effectiveness (in terms of water savings) of each individual BMP described above. However, as described in Section 3.1, total water demand within the City has declined since 2000, and although no official study has been conducted regarding the specific causes of this decline, it has been attributed, in part, to the City's increased water conservation efforts.

**9.5. CONSERVATION SAVINGS**

*10631. A plan shall be adopted in accordance with this chapter and shall do all of the following:*

*10631 (f) (4) An estimate, if available, of existing conservation savings on water use within the supplier's service area, and the effect of the savings on the supplier's ability to further reduce demand.*

The City does not currently implement a formal program for tracking the effectiveness of the individual BMPs on water use savings within the City. Potential methods for quantifying the water saved by BMPs that the City implements could include development of a database that would allow the City to track those accounts that had retrofitted their plumbing fixtures as part of a BMP (e.g., water-efficient clothes washers and other low-flow fixtures), and comparing water use at those accounts pre- and post-retrofit. The City may consider such an analysis in future years, although compensating for climatic, land use or other changes at an individual account may make such determination of BMP-specific water savings imperfect.

### **10.3.1 San Bruno's Emergency Response Plan**

In response to the requirements of the Public Health, Security and Bioterrorism Preparedness and Response Act of 2002 ("Bioterrorism Act"), Section 1433 amendment to the Safe Drinking water Act, San Bruno prepared a Water System ERP, completed in 2004 and updated in 2005. The City's ERP provides a framework for emergency response by the City's Public Works Department ("Department") and:

- Describes the Department's emergency management organization;
- Outlines the roles and responsibilities the Department and its staff during emergency response and recover;
- Compiles and organizes water system emergency response protocols and procedures; and
- Identifies contingency plans to be implemented in the event that one or more of San Bruno's water supplies were to become unusable.

San Bruno's ERP also includes procedures for emergency chloramination at the City's five groundwater supply wells, a plan for distributing emergency water quality information, and a drinking water contamination response plan. These components provide guidance in response to disasters and attacks, both natural and man-made. For example, San Bruno's ERP is designed to be implemented in the event of structural damage triggered by an earthquake, and to provide emergency standby generators at wells and pump stations in the event of a power outage. Though San Bruno currently uses portable generators as a backup power supply, the City's long-term goal is to install backup power supply to each well and pump station.

#### 10.3.1.1 SFPUC Service Interruption

In the event that service is interrupted from any of San Bruno's SFPUC metered connections, personnel are instructed to shut down the effected connection and reroute water from the remaining connections where possible, as described for each particular connection in the ERP Contingency Plan. If necessary, groundwater may be routed to higher pressure zones via booster stations and then back-fed through pressure reducing valves from the higher to lower zones within the distribution system.

#### 10.3.1.2 Emergency Inter-ties to Adjacent Distribution Systems

Emergency inter-ties with NCCWD, the City of Millbrae, and Cal Water – South San Francisco have also been established to provide additional options for emergency water supplies in the event that neighboring agencies SFPUC connections remain intact. San Bruno maintains two interties with NCCWD, one with the City of Millbrae, and two with Cal Water – South San Francisco.

### **10.3.2 SFPUC Emergency Operations Plan**

In accordance with California Government Code §8607.2, SFPUC has established a Suburban Customer Water Supply Emergency Operations and Notification Plan ("EOP")

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prosecuted by criminal complaint, filed by San Bruno's city attorney, or by citation from the police department, or neighborhood improvement representative.

**10.5. ANALYSIS OF REVENUE IMPACTS OF REDUCED SALES DURING SHORTAGES**

*10632 (g) An analysis of the impacts of each of the actions and conditions described in subdivisions (a) to (f), inclusive, on the revenues and expenditures of the urban water supplier, and proposed measures to overcome those impacts, such as the development of reserves and rate adjustments.*

Because San Bruno bills its customers per unit volume of water consumed, the City would experience a reduction in revenue upon implementation of the water conservation and/or rationing plan. As described in Section 9.2.11, to compensate for the expected revenue reduction cause by water conservation, the City Council reserves the authority to adopt a temporary rate increase and institute an excess water surcharge (SBMC §10.16.140). Such rate increases would be based on a variety of components (including the change in quantity of sales, and fiscal impacts to the City and to customers) and evaluated at the time of drought. [In addition to rate increases, capital reserves could potentially be used but would require approval from the City Council.](#)

**10.6. WATER USE MONITORING PROCEDURE AND ORDINANCE**

*10632 (h) A draft water shortage contingency resolution or ordinance.*

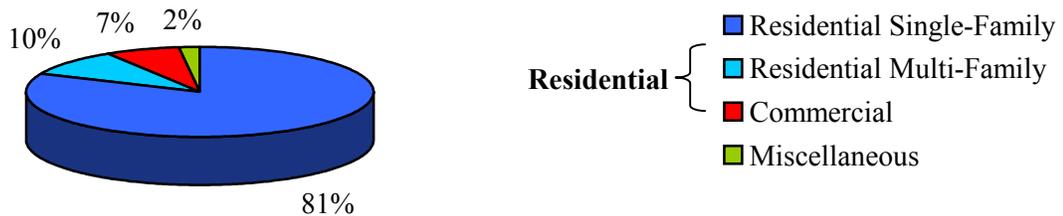
*10632 (i) A mechanism for determining actual reductions in water use pursuant to the urban water shortage contingency analysis.*

San Bruno's Water Shortage Contingency Plan as described in the above sections is codified in the "Water Conservation" Chapter 10.16 of the SBMC (see Appendix I). In order to determine the actual reduction in water use during water shortage periods, the City plans to increase the frequency at which it conducts meter readings to ensure that customers are conserving water. By frequently monitoring water use at its residential and CII accounts, the City will ensure compliance with water shortage rationing and be able to impose penalties on those who are not complying with the directed mandatory water conservation measures or water allocations. Non-compliance with the required water conservation will result in the penalties described in Section 10.4, potentially including fines, flow restriction devices, and termination of service.

**Table 11b**  
**Projected Future Number of Accounts (a)**  
 City of San Bruno, California

Customer Sector		Projected Future Number of Accounts				
		2010	2015	2020	2025	2030
<b>Residential</b>	Residential Single-Family	10,279	10,474	10,669	10,865	11,060
	Residential Multi-Family	1,209	1,231	1,254	1,277	1,300
	<i>Total Residential</i>	<i>11,487</i>	<i>11,705</i>	<i>11,924</i>	<i>12,142</i>	<i>12,361</i>
<b>Commercial</b>		644	709	775	841	907
<b>Miscellaneous</b>		260	265	270	275	279
<b>Total Number of Accounts</b>		<b>12,391</b>	<b>12,679</b>	<b>12,969</b>	<b>13,258</b>	<b>13,547</b>

**Distribution of Accounts (2030)**



**Abbreviations:**

CII = Commercial, Industrial, and Institutional

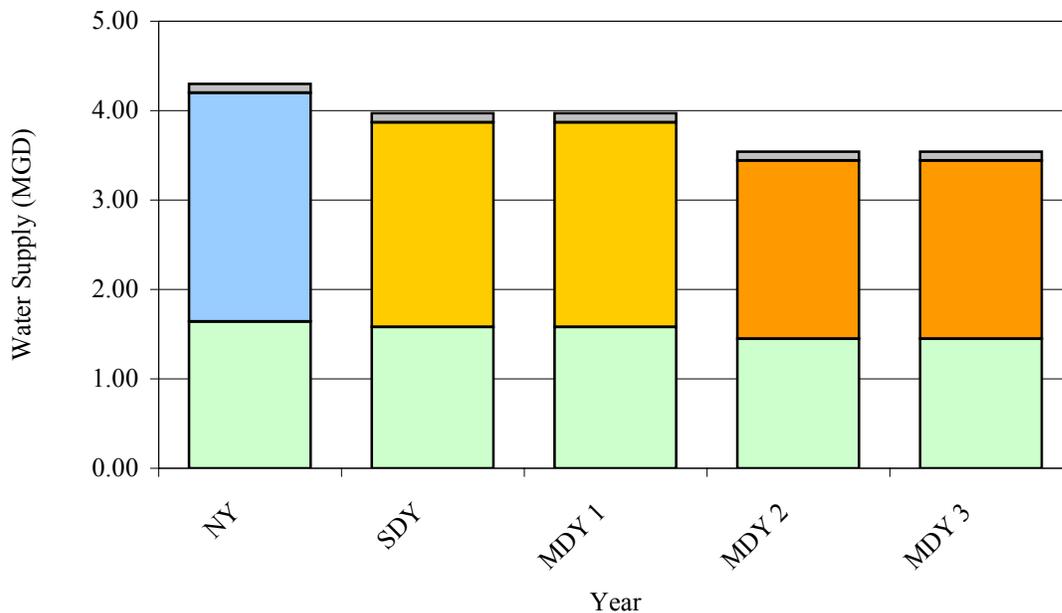
MGD = Millions of gallons per day

**Notes:**

(a) Projected future accounts were estimated using the Decision Support System Model, developed for San Francisco Public Utilities Commission's Water System Improvement Program (URS, 2005).

**Table 25**  
**Estimated Minimum Three Year Supply (2005)**  
 City of San Bruno, California

Supply Source	Normal Year (2005)	Single Dry Year (a) (2005)	Multiple Dry Years (b) (Beginning in 2005)		
			1	2	3
SFPUC Purchases (c) (d)	2.56	2.29	2.29	1.99	1.99
Groundwater Production (e)	1.64	1.58	1.58	1.45	1.45
<i>Subtotal Water Supply</i>	<i>4.20</i>	<i>3.87</i>	<i>3.87</i>	<i>3.44</i>	<i>3.44</i>
Conservation Savings (f)	0.10	0.10	0.10	0.10	0.10
<b>Total Water Supply</b>	<b>4.3</b>	<b>3.9</b>	<b>3.9</b>	<b>3.4</b>	<b>3.4</b>



**Abbreviations:**

MGD = Millions of gallons per day  
 NCCWD = North Coast County Water District  
 RWS = Regional Water System  
 SFPUC = San Francisco Public Utilities Commission

- Conservation
- SFPUC Purchases - Normal Year
- SFPUC Purchases - Dry Year (RWS = 100% of Normal)
- SFPUC Purchases - Dry Year (RWS = 90% of Normal)
- Groundwater

**Table 25**  
**Estimated Minimum Three Year Supply (2005)**  
City of San Bruno, California

**Notes:**

- (a) A single dry year is defined herein as any year in which precipitation is equal to precipitation in 1987, the design single dry year based on the historical rainfall record from 1920 through 2002.
- (b) A multiple dry year period is defined herein as any consecutive years where precipitation is equal to precipitation in 1987 through 1992, the design multiple year drought based on the historical rainfall record from 1920 through 2002.
- (c) SFPUC purchases are equal to the quantity of wholesale water available to San Bruno, as projected by SFPUC in their 1 June 2005 letter to San Bruno regarding water supply reliability. Projections are based on SFPUC's Water System Reliability Model and the assumed renewal of on a 2005 total water demand of 4.2 MGD; San Bruno's actual demand in 2005 was 3.76 MGD.
- (d) NCCWD's 2005 Urban Water Management Plan estimates multiple dry year supply cutbacks of 6.6% to 18.8% (NCCWD, 2005). Since San Bruno's NCCWD supplies are from the SFPUC Regional System, for the purposes of this UWMP they are included in the SFPUC Purchase estimates and expected to have the same reliability.
- (e) The projected quantity of groundwater extracted by San Bruno is based on the availability of wholesale water and San Bruno's total demand, such that local supply cutbacks are equal to the total cutbacks to the Regional Water System (up to 20%).
- (f) "Conservation Savings" were estimated as part of the SFPUC Water System Improvement Program. Estimates were submitted to SFPUC in San Bruno's 18 April 2005 letter.