URBAN WATER MANAGEMENT PLAN

2010

Mid-Peninsula Water District
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I. INTRODUCTION

This report has been prepared in compliance with the Urban Water Management Planning Act, as amended.1 It updates the Mid-Peninsula Water District’s existing Urban Water Management Plan.2

This is the fifth Urban Water Management Plan to be prepared by the District3 under the terms of AB 797 (1983) and subsequent amending legislation. This Plan also includes a Water Shortage Contingency Plan as required under the provisions of AB 11X of (1991) and addresses changes required by subsequent legislation including the Water Conservation Act of 2009 (SBX7-7). The Plan also incorporates the water conservation initiatives that the District has adopted under the terms of the Memorandum of Understanding Regarding Urban Water Conservation in California, to which the District is a signatory.

This Plan will be presented to the Water District’s Board of Directors for review and adoption. Once adopted it will supersede the existing plan prepared in 2005. It will be filed with the Water Efficiency Office in the Department of Water Resources, the California State Library, the Bay Area Water Supply and Conservation Agency, the San Francisco Water Department, San Mateo County and the Cities of Belmont and San Carlos, as required by law, and will be used by the District staff during the current five-year planning cycle. As required by §10621 (a) of the Water Code, the District will update the Plan again by December 2015.

ACRONYMS AND ABBREVIATIONS USED IN THIS REPORT

ABAG - Association of Bay Area Governments
AF – Acre Feet (1 AF = 325,851 gallons)
AFY – Acre Feet per Year
BAWSCA – Bay Area Water Supply and Conservation Agency
BMP - Best Management Practice
CII – Commercial, Institutional and Institutional
CIMIS – California Irrigation Management Information System
CUWCC - California Urban Water Conservation Council
DMM - Demand Management Measure
EOC - Emergency Operations Center
Eto – Evapo-transpiration rate
hcf unit - A billing unit of 100 cubic feet or 748 gallons
gpcd - Gallons per capita per day
ISA – Interim Supply Allocation
ISG – Individual Supply Guarantee
mg - million gallons
mgd - million gallons a day
MOU - Memorandum of Understanding
MPWD – Mid-Peninsula Water District
PEIR – Program Environmental Impact Report
RWS – Regional Water System; also Hetch-Hetchy System
SFPUC - San Francisco Public Utilities Commission
WSA – Water Supply Agreement
WCIP - Water Conservation Implementation Plan
WSAP – Water Shortage Allocation Plan

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1California Water Code, Division 6, Part 2.6; §10610, et. seq. Established by Assembly Bill 797 (1983),
3Throughout this report the Mid-Peninsula Water District may be referred to variously as the “District”, “MPWD”, and the “Water District” as well as by its proper name.
II. PUBLIC AND INTERAGENCY COORDINATION

A. PUBLIC PARTICIPATION

The Mid-Peninsula Water District has encouraged community participation in its urban water management planning efforts since the first Plan was adopted in 1990. The District provided a notice of preparation of this *Urban Water Management Plan* to all customers through a printed message on their water bills and on the District’s website ([www.midpeninsulawater.org](http://www.midpeninsulawater.org)) in the Spring of 2011. In late February and early March, 2011, notices of preparation were also sent to the Cities of Belmont and San Carlos, San Mateo County, the South Bayside Systems Authority and the Belmont-San Carlos Fire Department. (See Appendix F) On June 23, 2011 the District will convene a public hearing at its office in Belmont to receive comments on the Plan prior to its final adoption by the Board of Directors and submittal to the California Department of Water Resources.

B. INTERAGENCY COORDINATION

1. BAY AREA WATER SUPPLY AND CONSERVATION AGENCY

The Water District is a member of BAWSCA, Bay Area Water Supply and Conservation Agency and participates in a number of the regional water conservation initiatives coordinated by BAWSCA. BAWSCA was created on May 27, 2003 to represent the interests of 26 cities and water districts, a water company, and a university, in Alameda, Santa Clara and San Mateo counties that purchase water on a wholesale basis from the San Francisco Regional Water System (RWS). Collectively the BAWSCA agencies are referred to as the Wholesale Customers.

BAWSCA is the only entity that has the authority to directly represent the needs of the cities, wholesale customers that depend on the RWS. Through BAWSCA the wholesale customers can work with the San Francisco Public Utilities Commission (SFPUC) on an equal basis to ensure the RWS is rehabilitated and maintained to collectively and efficiently meet local responsibilities.

BAWSCA has the authority to coordinate water conservation, supply and recycling activities for its agencies; acquire water and make it available to other agencies on a wholesale basis; finance projects, including improvements to the regional water system; and build facilities jointly with other local public agencies or on its own to carry out the agency’s purposes.

Compliance with the Urban Water Management Planning Act lies with each agency that delivers water to its customers. In this instance, the responsibility for completing an UWMP lies
with the Mid-Peninsula Water District. BAWSCA’s role in the development of the 2010 UWMP updates is to work closely with its member agencies and the SFPUC to maintain consistency among the multiple documents being developed.

2. OTHER AGENCIES

Most land use planning and development approvals within the Water District’s boundaries are the responsibility of the City of Belmont. The City of San Carlos and San Mateo County also have planning authority over small portions of the District’s territory. Wastewater treatment is provided by the South Bayside System Authority in Redwood City. Fire suppression services are provided by the Belmont-San Carlos Fire Department. The coordination with these agencies is summarized in Table 1.

<table>
<thead>
<tr>
<th>Agency</th>
<th>Was contacted for Assistance</th>
<th>Was sent a copy of the Draft Plan</th>
<th>Was sent a Notice of Intention to Prepare Plan</th>
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<tr>
<td>BAWSCA</td>
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<td>✔</td>
<td>✔</td>
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<tr>
<td>City of Belmont</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
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<tr>
<td>City of San Carlos</td>
<td></td>
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<td>✔</td>
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<tr>
<td>San Mateo County</td>
<td></td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>South Bayside System Authority</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>Belmont-San Carlos Fire Department</td>
<td></td>
<td>✔</td>
<td>✔</td>
</tr>
</tbody>
</table>

1 The District has a single irrigation connection in the City of Redwood City and a single irrigation connection in the City of San Mateo. For purposes of this report these cities are classified as customers; they have not been contacted for assistance or coordination, nor have they been sent copies of the Draft Plan.
III. DESCRIPTION OF THE MID-PENINSULA WATER DISTRICT

A. LOCATION AND SIZE

The Mid-Peninsula Water District\(^1\) is located in east central San Mateo County on the San Francisco Peninsula about 30 miles south of San Francisco. It serves the City of Belmont and portions of the City of San Carlos and an unincorporated County area, covering an area of about 5 square miles. Figure 1 is a map of the District highlighting the District boundaries, while Figure 2 shows the District’s boundaries on a street map. Figure 3 is a map of the District’s distribution system.

The District was formed in 1929 under the County Water District Act of California. When formed, the District consolidated the operations of seven small water systems serving about 320 customers. In the 1930’s the District contracted with the San Francisco Water Department to purchase water from the newly built Hetch Hetchy water project, eliminating local dependence on small, unreliable wells and gaining a more secure, reliable and expandable source of supply.

Like most of the Bay Area, the District experienced rapid growth following World War II. The 1950’s and 1960’s saw both population and housing growth and increased water demand. The rate of growth in the area served by the District tapered off dramatically in the 1970’s and has remained low over the past 25 years.

B. CLIMATE

The Belmont area has a semi-arid Mediterranean climate typified by moderate to warm summers and mild winters. The warmest months of the year are August and September, and the coldest are December and January. As shown in Table 2, the average daily maximum temperature in September at the nearby San Mateo weather monitoring station is 78.0°. The average minimum temperature in the coolest month (January) is 41.7°.

\(^{1}\)Until July 2000 the Mid-Peninsula Water District was know as the Belmont County Water District.
STREET MAP SHOWING DISTRICT BOUNDARIES

FIGURE 2

MID-PENINSULA WATER DISTRICT SERVICE AREA

BELMONT
### Table 2
**Mid-Peninsula Water District Climate Data**

<table>
<thead>
<tr>
<th>Standard Average Eto (in./mo.)</th>
<th>January</th>
<th>February</th>
<th>March</th>
<th>April</th>
<th>May</th>
<th>June</th>
<th>July</th>
</tr>
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<tbody>
<tr>
<td>1.55</td>
<td>1.96</td>
<td>3.56</td>
<td>4.80</td>
<td>5.74</td>
<td>6.30</td>
<td>6.51</td>
<td></td>
</tr>
</tbody>
</table>

| Average Rainfall (in.)        | 4.37    | 2.65     | 2.47  | 1.49  | 0.40| 0.11 | 0.05 |

| Average Max. Temperature (°F) | 57.8    | 61.7     | 63.7  | 66.7  | 70.1| 74.2 | 76.8 |

<table>
<thead>
<tr>
<th>Standard Average Eto (in./mo.)</th>
<th>August</th>
<th>September</th>
<th>October</th>
<th>November</th>
<th>December</th>
<th>Annual</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.89</td>
<td>4.65</td>
<td>3.41</td>
<td>2.10</td>
<td>1.40</td>
<td>47.8</td>
<td></td>
</tr>
</tbody>
</table>

| Average Rainfall (in.)        | 0.06   | 0.18      | 0.98    | 2.49     | 43.52    | 18.77  |

| Average Max. Temperature      | 77.0   | 78.0      | 73.2    | 65.6     | 58.4     | 68.6   |

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Eto (EvapoTranspiration) rates in inches/month from California Irrigation Management System (CIMIS) reference Evapotranspiration Zones Map; averaged for Zone 3 (Coastal Valleys and Plains) and Zone 8 (Inland San Francisco Bay Area with some marine influence).

Rainfall and temperature data for San Mateo monitoring station, from Western Regional Climate Center; 1948-2004.

The average annual precipitation is 18.77 inches, virtually all of which is rainfall, with about 90 percent falling between November and April. Rainfall amounts vary widely from year to year, with a low of 11.16 inches in 1953 and a high of 29.77 inches in 1973.

The District is located on the eastern slopes of the coastal mountains overlooking San Francisco Bay, and features hilly terrain, with elevations ranging from sea level to almost 900 feet. As a result, the service area is located where two reference evapo-transpiration zones blend together; the District’s winters are warmer than most of the Inland San Francisco Bay zone (Zone 8) while the summers are warmer than typical for the Coastal Valleys and Plains zone (Zone 3). The Eto Rates shown in Table 2 are an average of the rates for both zones.

Relative to most other areas in California, the evapo-transpiration rate is low, particularly during the summer months. Urban water consumption in the San Francisco Bay hydrologic region is among the lowest in the State, estimated to average 157 gallons per capita per day (gpcd) compared to the statewide average of 192 gpcd.
C. DEMOGRAPHY

The population of the District was estimated at 26,030 in 2010. This includes all of the Belmont Sphere of Influence area (25,900 people) plus about 130 residents of San Carlos.¹

Belmont is primarily residential, although there are significant commercial, institutional and industrial sectors to the local economy. According to ABAG, there are currently about 12,880 employed residents in Belmont while the City has an employment base of 8,370 jobs.² The Mid-Peninsula Water District also serves unincorporated Harbor Bay industrial area plus 32 commercial and 18 industrial customers in the City of San Carlos, so the actual number of employees served by the District is larger than the ABAG job projection for Belmont alone.

The population of the area served by the District has grown slowly in recent years. Between the 1990 and 2000 censuses, the population grew by about 626 people, an increase of only 2.5% over 10 years or 0.025% per year. During the same period, employment within the District decreased by a substantial amount – in 1990 the City of Belmont had an estimated 12,160 jobs, but by 2000 the number of jobs had dropped by 26%, to 8,950. ABAG does not project the number of jobs to rebound to their 1990 level until after 2025.

Despite the recent slow growth and shortage of easily developed land, ABAG expects that the population of Belmont will grow by 11.9% over the next 25 years. The number of households, which is sometimes an indicator of changes in the number of water connections, is projected to increase by 11.4%, representing 1,250 new households by 2035. The population projections are summarized in Table 3. As indicated, ABAG projects that Belmont will grow from 25,900 to 29,000, between 2010 and 2035. The population of the area in San Carlos served by the District is expected to be stable, varying only in proportion to expected changes in persons per household. Overall population in the District is expected to grow at an average rate of about 0.48% per year in the next 25 years.

At the beginning of 2010, the Water District had 7,975 service connections of which 92% were residential services. Over the next 25 years it is expected that the District will add connections at a rate that is generally proportional to the projected rate of growth, or approximately 38 new connections a year.

¹Association of Bay Area Governments (ABAG), Projections 2009, pp. 51. The District’s 56 residential connections in San Carlos represent an estimated population of 130 people, based on ABAG’s estimate of 2.33 persons per household.
²Ibid., pp. 54, 55.
D. WATER SUPPLY FACILITIES

The District purchases all of its water from the San Francisco Public Utilities Commission (SFPUC). The SFPUC water is delivered to the District in two ways: via a 20-inch water transmission pipeline that is connected to the SFPUC system in Redwood City and via a 24-inch pipeline connected to a pump station on the SFPUC watershed property near the Pulgas Water Temple. Water from the regional system is treated before delivery to the District.

The District operates and maintains a complex distribution system that includes 9 pressure zones, 19 pumps, 11 water tanks, 20 water regulating valves, 790 fire hydrants and 94 miles of water mains. The District has the ability to transfer water between pressure zones either in a pump up or flow down mode. The District also has redundancy built into the distribution system so that it can, if necessary, supply all customers from either one of the San Francisco Public Utilities Commission connections.

E. WATER SUPPLY SOURCES

1. THE HETCH HETCHY SYSTEM

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1 In this report the terms “Hetch Hetchy System,” “Regional Water System” and “RWS” are used interchangeably and are intended to refer to the overall SFPUC water supply system.
Currently, the District obtains all of its water from the City and County of San Francisco’s regional system, operated by the SFPUC. This supply is predominantly from the Sierra Nevada, delivered through the Hetch Hetchy aqueducts, but also includes treated water produced by the SFPUC from its local watersheds and facilities in Alameda and San Mateo Counties. The Hetch Hetchy Regional System is illustrated in Figure 4.

The amount of imported water available to the SFPUC’s retail and wholesale customers is constrained by hydrology, physical facilities, and the institutional parameters that allocate the water supply of the Tuolumne River. Due to these constraints, the SFPUC is very dependent on reservoir storage to firm-up its water supplies.

The SFPUC serves its retail and wholesale water demands with an integrated operation of local Bay Area water production and imported water from Hetch Hetchy. In practice, the local watershed facilities are operated to capture local runoff.

Water from the regional system is supplied to MPWD from two connections, BDPL 1 and 2, and the Crystal Springs Bypass Tunnel.

2. SFPUC’S WATER SYSTEM IMPROVEMENT PLAN

In order to enhance the ability of the SFPUC water supply system to meet identified service goals for water quality, seismic reliability, delivery reliability, and water supply, the SFPUC has undertaken the Water System Improvement Program (WSIP), approved October 31, 2008. The WSIP will deliver capital improvements aimed at enhancing the SFPUC’s ability to meet its water service mission of providing high quality water to customers in a reliable, affordable and environmentally sustainable manner. Many of the water supply and reliability projects evaluated in the WSIP were originally put forth in the SFPUC’s Water Supply Master Plan (2000).

A Program Environmental Impact Report (PEIR) was prepared in accordance with the California Environmental Quality Act for the WSIP. The PEIR, certified in 2008, analyzed the broad environmental effects of the projects in the WSIP at a program level and the water supply impacts of various alternative supplies at a project level. Individual WSIP projects are also undergoing individual project specific environmental review as required.
In approving the WSIP, the Commission adopted a Phased WSIP Variant for water supply that was analyzed in the PEIR. This Phased WSIP Variant established a mid-term water supply planning milestone in 2018 when the Commission would reevaluate water demands through 2030. At the same meeting, the Commission also imposed the Interim Supply Limitation, which limits the volume of water that the member agencies and San Francisco can collectively purchase from RWS to 265 MGD until at least 2018. Although the Phased WSIP Variant included a mid-term water supply planning milestone, it also included full implementation of all proposed WSIP facility improvement projects to insure that the public health, seismic safety, and delivery reliability goals were achieved as soon as possible.

As of July 1, 2010, the WSIP was 27% complete overall with the planning and design work over 90% complete. The WSIP is scheduled to be completed in December 2015.

3. OTHER SOURCES OF SUPPLY

Surface Water. The Mid-Peninsula Water District’s only viable supply source, at the current time, is the San Francisco Water Department’s Hetch Hetchy System. None of the local streams produce sufficient quantity of water to be a viable source of supply, and no potential diversion and storage projects have been identified.

Groundwater. Local groundwater resources are not considered to be adequate quality or quantity to be a viable augmenting resource, and have not been developed as a source of supply for the District. Nor has the District developed a conjunctive use program utilizing local groundwater resources.

Recycled Water. Recycled water is available at the South Bayside Systems Authority treatment plant, located a short distance south of the San Mateo Bridge. However, past engineering studies have determined that it would not be financially feasible to construct a transmission system to transport the reclaimed water to the Belmont area. It is not expected that recycled water will become available within the District’s boundaries in the foreseeable future. See Chapter VI, D below, for further details.

Desalination. The Mid-Peninsula Water District does not have an existing or planned program to develop or distribute any desalinated water.

F. RELIABILITY OF SUPPLY

1. CURRENT CONTRACTUAL ASSURANCES

2009 Water Supply Agreement
The business relationship between San Francisco and its wholesale customers is largely defined by the Water Supply Agreement between the City and County of San Francisco and Wholesale Customers in Alameda County, San Mateo County and Santa Clara County entered into in July 2009 (WSA). The new WSA replaced the Settlement Agreement and Master Water Sales Contract that
expired June 2009. The WSA addresses the rate-making methodology used by the City in setting wholesale water rates for its wholesale customers in addition to addressing water supply and water shortages for the RWS. The WSA has a 25 year term.

In terms of water supply, the WSA provides for a 184 million gallon per day (MGD, expressed on an annual average basis) "Supply Assurance" to the SFPUC's wholesale customers, subject to reduction, to the extent and for the period made necessary by reason of water shortage, due to drought, emergencies, or by malfunctioning or rehabilitation of the regional water system. The WSA does not guarantee that San Francisco will meet peak daily or hourly customer demands when their annual usage exceeds the Supply Assurance. The SFPUC's wholesale customers have agreed to the allocation of the 184 MGD Supply Assurance among themselves, with each entity's share of the Supply Assurance set forth on Attachment C to the WSA. The Mid-Peninsula Water District's Supply Assurance is 3.891 MGD. The Supply Assurance survives termination or expiration of the WSA and MPWD’s Individual Water Sales Contract with San Francisco.

The Water Shortage Allocation Plan between the SFPUC and its wholesale customers, adopted as part of the WSA in July 2009, addresses shortages of up to 20% of system-wide use. The Tier 1 Shortage Plan allocates water from the RWS between San Francisco Retail and the wholesale customers during system-wide shortages of 20% or less. The WSA also anticipated a Tier 2 Shortage Plan adopted by the wholesale customers, which would allocate the available water from the RWS among the wholesale customers.

Individual Supply Guarantees
In 2009, the Mid-Peninsula Water District, along with 25 other Bay Area water suppliers signed a Water Supply Agreement (WSA) with San Francisco, supplemented by an individual Water Supply Contract. These contracts, which expire in 25 years, provide for a 184 million gallon a day (mgd, expressed on an annual average basis) Supply Assurance to the SFPUC's wholesale customers collectively. The Mid-Peninsula Water District’s Individual Supply Guarantee (ISG) is 3.891 MGD (or approximately 4,358.50 acre-feet per year). Although the WSA and accompanying Water Supply Contract expire in 2034, the Supply Assurance (which quantifies San Francisco’s obligation to supply water to its individual wholesale customers) survives their expiration and continues indefinitely, as noted above.

2. INTERIM SUPPLY LIMITATION AND THE WATER CONSERVATION IMPLEMENTATION PLAN

On October 31, 2008 the SFPUC imposed an Interim Supply Limitation on the RWS that limits the volume of water that BAWSCA member agencies and San Francisco can collectively purchase from the RWS to 265 MGD until at least 2018.

In September 2009, BAWSCA completed the Water Conservation Implementation Plan (WCIP). The goal of the WCIP is to develop an implementation strategy for BAWSCA and its member agencies to attain the water efficiency goals that the agencies committed to in 2004 as part of the
Program Environmental Impact Report (PEIR) of the Water System Improvement Program (WSIP), described above. The WCIP’s goal was expanded to include identification of how BAWSCA member agencies could use water conservation as a way to continue to provide reliable water supplies to their customers thorough 2018 given the SFPUC’s 265 million gallons per day (MGD) Interim Supply Limitation.

Based on the WCIP development and analysis process, BAWSCA and its member agencies identified five new water conservation measures, which, if implemented fully throughout the BAWSCA service area, could potentially save an additional 8.4 MGD by 2018 and 12.5 MGD by 2030. The demand projections for the BAWSCA member agencies, as transmitted to the SFPUC on June 30, 2010, indicate that the collective purchases from the SFPUC will stay below 184 MGD through 2018 as a result of revised water demand projections, the identified water conservation savings, and other actions.

Several member agencies have elected to participate in the BAWSCA regional water conservation programs and BAWSCA continues to work with individual member agencies to incorporate the savings identified in the WCIP into their future water supply portfolios with the goal of maintaining collective SFPUC purchases below 184 MGD through 2018.

Table 4, below, summarizes the Mid-Peninsula Water District’s Supply Guarantee and Interim Supply Assurance (through 2018).

<table>
<thead>
<tr>
<th>Supply Source</th>
<th>Estimated Annual Maximum Purchases</th>
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<tr>
<td></td>
<td>Interim Supply (through 2018)</td>
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<tr>
<td>San Francisco Public Utilities Commission</td>
<td>4,158.91 AFYb (3.71 MGD)</td>
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<th>Notes:</th>
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<tbody>
<tr>
<td>a Supplies would typically be constrained in single or multiple years of below-normal precipitation.</td>
</tr>
<tr>
<td>c Individual Supply Guarantee for MPWD from the Water Supply Agreement, July 1, 2009, Attachment C.</td>
</tr>
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</table>

### 3. Long Term Reliable Water Supply Strategy

BAWSCA’s water management objective is to ensure that a reliable, high quality supply of water is available where and when people within the BAWSCA service area need it. A reliable supply of water is required to support the health, safety, employment, and economic
opportunities of the existing and expected future residents in the BAWSCA service area and to supply water to the agencies, businesses, and organizations that serve those communities. BAWSCA is developing the Long-Term Reliable Water Supply Strategy (Strategy) to meet the projected water needs of its member agencies and their customers through 2035 and to increase their water supply reliability under normal and drought conditions.

The Strategy is proceeding in three phases. Phase I was completed in 2010 and defined the magnitude of the water supply issue and the scope of work for the Strategy. Phase II of the Strategy is currently under development and will result in a refined estimate of when, where, and how much additional supply reliability and new water supplies are needed throughout the BAWSCA service area through 2035, as well as a detailed analysis of the water supply management projects, and the development of the Strategy implementation plan. Phase II will be complete by 2013. Phase III will include the implementation of specific water supply management projects. Depending on cost-effectiveness, as well as other considerations, the projects may be implemented by a single member agency, by a collection of the member agencies, or by BAWSCA in an appropriate timeframe to meet the identified needs. Project implementation may begin as early as 2013 and will continue throughout the Strategy planning horizon, in coordination with the timing and magnitude of the supply need.

The development and implementation of the Strategy will be coordinated with the BAWCSA member agencies and will be adaptively managed to ensure that the goals of the Strategy, i.e., increased normal and drought year reliability, are efficiently and cost-effectively being met.

G. EXCHANGES WITH OTHER AGENCIES

As a wholesale customer of the SFPUC, the MPWD is directly connected to San Francisco’s huge Hetch Hetchy system. As noted above, the District’s water transmission system is connected with the San Francisco system at two points. There is a low elevation connection in Redwood City and a high elevation connection in the vicinity of the Pulgas Water Temple.

In addition, the District has interties with four adjoining water systems. There are separate connections with the Redwood City system, the Foster City system, and the California Water Service Company systems serving San Mateo (2 connections) and San Carlos (also 2 connections).

The interties with Redwood City, Foster City and California Water Service, and the water exchanges that do occur between these systems, are neither a current nor planned source of water supply for the District. The interconnections are used to manage existing supplies, and also provide potential emergency back-up sources of water. As described below, the District also maintains a large volume of water in storage for potential emergency use.
H. PLANNED WATER SUPPLY PROJECTS AND PROGRAMS

The Mid-Peninsula Water District serves an area that is almost built out, and the District’s boundaries are set. Its supply assurance of 3.891 mgd (about 4,358.5 acre feet per year) under the terms of the Water Supply Contract with the SFPUC continues indefinitely, and is sufficient to meet current and projected water demands. The District has no plans to increase its overall water supply.

I. STORAGE

The District has eleven storage tanks with a total capacity of 13.5 million gallons. The District’s storage tanks and capacities are listed in Table 5.

<table>
<thead>
<tr>
<th>#</th>
<th>Tank Identification</th>
<th>Capacity (gal.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Hallmark #1</td>
<td>2,500,000</td>
</tr>
<tr>
<td>2</td>
<td>Hallmark #2</td>
<td>2,500,000</td>
</tr>
<tr>
<td>3</td>
<td>West Belmont #1</td>
<td>790,000</td>
</tr>
<tr>
<td>4</td>
<td>West Belmont #2</td>
<td>790,000</td>
</tr>
<tr>
<td>5</td>
<td>DeKoven #1</td>
<td>720,000</td>
</tr>
<tr>
<td>6</td>
<td>DeKoven #2</td>
<td>1,000,000</td>
</tr>
<tr>
<td>7</td>
<td>Hersom</td>
<td>1,500,000</td>
</tr>
<tr>
<td>8</td>
<td>Exborne</td>
<td>2,000,000</td>
</tr>
<tr>
<td>9</td>
<td>Exbourne #2</td>
<td>1,500,000</td>
</tr>
<tr>
<td>10</td>
<td>Buckland #1</td>
<td>100,000</td>
</tr>
<tr>
<td>11</td>
<td>Buckland #2</td>
<td>100,000</td>
</tr>
<tr>
<td></td>
<td>TOTAL</td>
<td>13,500,000</td>
</tr>
</tbody>
</table>

The current storage capacity provides an adequate reserve for fire defense, and is sufficient to supply 6 - 7 days of emergency water supply, based on the current level of demand.

J. WATER QUALITY

The SFPUC maintains and monitors the quality of the water imported from Hetch Hetchy, and collected and distributed as part of its regional system. The Hetch Hetchy supply is treated
with lime addition at River Rock for corrosion control and chlorination at Tesla Portal for disinfection. Water that is delivered to Bay Area reservoirs receives filtration and disinfection treatment at either the Sunol or Harry Tracy filtration plants. Water from either of these treatment plants may be commingled with unfiltered Hetch Hetchy Water in Bay Area transmission pipelines.

The SFPUC and its wholesale customers were granted filtration avoidance for the Hetch Hetchy supply under Federal and State regulations in 1998. Under the regulations, public water systems serving water from the Hetch Hetchy supply, including the Mid-Peninsula Water District, must demonstrate to the California Department of Health Services that the supply meets the State criteria for filtration avoidance.

Monitoring of the water quality within the District’s distribution system is the District’s responsibility. The District regularly monitors the quality of water in its system following an established set of sampling and testing protocols that have been approved by the State Department of Health. Sampling and testing is done weekly for bacteriological quality and disinfection residual, and quarterly for trihalomethanes. The on-going water quality sampling and testing efforts have consistently demonstrated that the District’s water supply meets all applicable State and Federal drinking water standards.

The District also has an on-going program of flushing distribution lines to remove deposits, encrustations, sediments and other materials and to mix water held in large storage tanks. These efforts are aimed at preventing water quality problems related to taste, odor, and turbidity, among others.

It is expected that the existing treatment systems and protocols for monitoring water quality will continue into the future (2030 and beyond) with adjustments, as appropriate, to respond to any changes regulatory requirements or in raw water sources and quality that could result from implementation of the WSIP or other future SFPUC projects.
IV. PAST AND CURRENT WATER USE – BASELINES AND TARGETS

A. WATER PRODUCTION

All of the District’s water is purchased from the San Francisco Public Utilities Commission. These wholesale purchases, which represent the District's water production volumes, are summarized in five-year increments since 1985 in Table 6, below.

<table>
<thead>
<tr>
<th>Year</th>
<th>AFY</th>
<th>mgd</th>
</tr>
</thead>
<tbody>
<tr>
<td>1985</td>
<td>4,102.12</td>
<td>3.66</td>
</tr>
<tr>
<td>1990</td>
<td>3,379.17</td>
<td>3.02</td>
</tr>
<tr>
<td>1995</td>
<td>3,230.02</td>
<td>2.88</td>
</tr>
<tr>
<td>2000</td>
<td>4,106.93</td>
<td>3.67</td>
</tr>
<tr>
<td>2005</td>
<td>3,696.17</td>
<td>3.30</td>
</tr>
<tr>
<td>2006</td>
<td>3,647.92</td>
<td>3.26</td>
</tr>
<tr>
<td>2007</td>
<td>3,690.04</td>
<td>3.29</td>
</tr>
<tr>
<td>2008</td>
<td>3,662.33</td>
<td>3.27</td>
</tr>
<tr>
<td>2009</td>
<td>3,394.55</td>
<td>3.03</td>
</tr>
<tr>
<td>2010</td>
<td>3,617.39</td>
<td>2.83</td>
</tr>
</tbody>
</table>

While the District’s population has grown by about 4.7% since 1985, water demand is approximately 25% lower than it was at that time, and is marginally lower than it was in 1990, a drought year when water rationing was in effect for part of the year. Water demand since 2000 has been modulated due to employment reductions in the Belmont area; demand began to recover by 2007, but dropped again in the recession of 2009-2010. Based on an estimated population of 26,030, the District’s 2010 water production was the equivalent of 108.6 gallons per capita per day (gcpd).
B. WATER SALES AND UNMETERED WATER

The Mid-Peninsula Water District’s annual water sales and unmetered water, in volume and as a percent of production, are depicted in Table 7. The data is presented in 5-year increments between 1985 and 2005 and in one-year segments for the past 5 years.

<table>
<thead>
<tr>
<th>Year</th>
<th>Water Sales</th>
<th>Unmetered Water*</th>
<th>Percent Unmetered Water*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1985</td>
<td>3,988.65</td>
<td>113.55</td>
<td>2.8%</td>
</tr>
<tr>
<td>1990</td>
<td>3,767.07</td>
<td>50.33</td>
<td>1.5%</td>
</tr>
<tr>
<td>1995</td>
<td>3,121.38</td>
<td>118.15</td>
<td>3.4%</td>
</tr>
<tr>
<td>2000</td>
<td>3,791.90</td>
<td>315.02</td>
<td>7.7%</td>
</tr>
<tr>
<td>2005</td>
<td>3,545.80</td>
<td>150.37</td>
<td>4.1%</td>
</tr>
<tr>
<td>2006</td>
<td>3,497.10</td>
<td>150.82</td>
<td>4.6%</td>
</tr>
<tr>
<td>2007</td>
<td>3,432.81</td>
<td>257.23</td>
<td>7.2%</td>
</tr>
<tr>
<td>2008</td>
<td>3,437.95</td>
<td>224.38</td>
<td>6.1%</td>
</tr>
<tr>
<td>2009</td>
<td>3,202.94</td>
<td>191.61</td>
<td>5.6%</td>
</tr>
<tr>
<td>2010</td>
<td>2,929.74</td>
<td>237.65</td>
<td>7.5%</td>
</tr>
</tbody>
</table>

*Staff estimates that one-third is typically for authorized uses (fire fighting, main flushing, etc.) and two-thirds is unaccounted-for water.

Unmetered water includes authorized and unauthorized uses. Authorized uses include water for fire fighting and training, hydrant flushing and other miscellaneous uses. Unauthorized uses include pipeline leaks, water meter inaccuracy, tank overflows, and possible stolen water. The unauthorized component of unmetered water is also known as unaccounted-for water. It is estimated that about one-third of the unmetered water goes to authorized uses; the remaining two-thirds is unaccounted for water. As can be seen in Table 7, unmetered water volumes can vary widely from year to year, particularly in the event of major pipeline breaks. The District has not had unmetered water volumes higher than 9% of its wholesale purchases in any of the past 30 years, and will continue its vigilance in reducing water losses with on-going programs to repair pipeline leaks as soon as they are discovered, replace old, less reliable pipelines, and upgrade older, potentially inaccurate, water meters.
C. WATER SALES BY USER CATEGORY

Table 8 depicts the District’s water sales by user categories for every year since 2000. In addition to showing water sales by user category, the number of active service connections is also shown. The District has no wholesale water accounts and does not supply any water for saline water intrusion barriers, groundwater recharge, or conjunctive use.¹

<table>
<thead>
<tr>
<th>Year</th>
<th>Single-Family Residential</th>
<th>Multi-Family Residential</th>
<th>Commercial</th>
<th>Industrial</th>
<th>Public Authorities / Other</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>7,015</td>
<td>205</td>
<td>466</td>
<td>50</td>
<td>90</td>
<td>7,826</td>
</tr>
<tr>
<td>2001</td>
<td>7,010</td>
<td>206</td>
<td>466</td>
<td>50</td>
<td>90</td>
<td>7,822</td>
</tr>
<tr>
<td>2002</td>
<td>7,039</td>
<td>206</td>
<td>492</td>
<td>51</td>
<td>95</td>
<td>7,883</td>
</tr>
<tr>
<td>2003</td>
<td>7,068</td>
<td>205</td>
<td>445</td>
<td>28</td>
<td>92</td>
<td>7,838</td>
</tr>
<tr>
<td>2004</td>
<td>7,128</td>
<td>205</td>
<td>498</td>
<td>51</td>
<td>99</td>
<td>7,981</td>
</tr>
<tr>
<td>2005</td>
<td>7,130</td>
<td>205</td>
<td>509</td>
<td>51</td>
<td>99</td>
<td>7,994</td>
</tr>
<tr>
<td>2006</td>
<td>7,092</td>
<td>239</td>
<td>477</td>
<td>79</td>
<td>79</td>
<td>7,966</td>
</tr>
<tr>
<td>2007</td>
<td>7,093</td>
<td>239</td>
<td>477</td>
<td>79</td>
<td>79</td>
<td>7,967</td>
</tr>
<tr>
<td>2008</td>
<td>7,094</td>
<td>239</td>
<td>477</td>
<td>79</td>
<td>81</td>
<td>7,970</td>
</tr>
<tr>
<td>2009</td>
<td>7,097</td>
<td>239</td>
<td>477</td>
<td>79</td>
<td>81</td>
<td>7,973</td>
</tr>
<tr>
<td>2010</td>
<td>7,099</td>
<td>239</td>
<td>477</td>
<td>79</td>
<td>81</td>
<td>7,975</td>
</tr>
</tbody>
</table>

¹This information provided to comply with §10631(e)(1)(G) and (H) of the Urban Water Management Planning Act.
As can be seen in Table 8, the vast majority of the District’s connections are classified as residential. The Single Family category accounts for about 89% of the District’s connections and the Multi-family category adds another 2.9%. Commercial accounts are the largest non-residential category, constituting about 5.2% of the total. The District has 79 Industrial and 81 Public Authority accounts, each representing about 1% of the total.

The proportion of sales, by sector, averaged over the past 5 years, are depicted in Figure 5. As shown, the two largest categories are both residential, and together, they accounted for 74% of sales. The Commercial sector accounts for 15% of sales while the Industrial and Public Authority sectors account for 5% and 7% of sales, respectively.

<table>
<thead>
<tr>
<th>Year</th>
<th>SF Residential</th>
<th>MF Residential</th>
<th>Commercial</th>
<th>Industrial</th>
<th>Public Authority</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>2,003.18</td>
<td>574.16</td>
<td>548.36</td>
<td>128.1</td>
<td>225.25</td>
</tr>
<tr>
<td>2007</td>
<td>1,992.43</td>
<td>556.91</td>
<td>549.4</td>
<td>99.15</td>
<td>234.11</td>
</tr>
<tr>
<td>2008</td>
<td>2,008.10</td>
<td>553.66</td>
<td>547.43</td>
<td>90.0</td>
<td>238.76</td>
</tr>
<tr>
<td>2009</td>
<td>1,894.19</td>
<td>523.84</td>
<td>503.43</td>
<td>77.51</td>
<td>203.45</td>
</tr>
<tr>
<td>2010</td>
<td>1,737.48</td>
<td>498.09</td>
<td>444.78</td>
<td>71.09</td>
<td>178.39</td>
</tr>
</tbody>
</table>

There is a wide variation between sectors in terms of average sales per connection. In 2010, sales to the single family residential sector were 218 gallons per connection per day, while multi-family residential buildings averaged 1,860 gallons per connection per day. The commercial sector averaged 832 gallons; public authorities averaged 1,966 gallons and sales to the industrial sector averaged 803 gallons per connection per day. By comparison, in 2000 sales to the industrial sector were 4,158 gallons per connection per day, reflecting the significantly higher level of industrial activity the District formerly supported.
D. BASELINE WATER CONSUMPTION

The Water Conservation Act of 2009 (SBx7-7) incorporated new provisions into the California Water Code establishing a program aimed at achieving a 20% reduction in statewide urban water use by 2020.¹ The law and implementing guidance promulgated by the Department of Water Resources establishes procedures for water suppliers to determine their baseline water use, in gallons per capita per day, and allows water suppliers the choice of complying individually or regionally by mutual agreement with other water suppliers. Suppliers can set their water use target using one of four Target Methods.

Baseline water use is determined by dividing the agency’s gross water use, less any recycled water use, by the population served to determine the baseline water use in terms of gallons per capita per day (gpcd). The average annual use during specified five-year and ten-year periods² are used for determining base daily per capita water use for purposes of assessing compliance with the water use targets established in the Act. The use of averages smoothes out the effects of short-term water demand variations due to weather or other factors.

The law permits an agency to select its applicable 5-year base daily per capita water use from a continuous period ending no earlier than December 31, 2007 and ending no later than December 31, 2010. The 10-year base daily per capita water use number can be selected from a continuous 10-year period ending no earlier than December 31, 2004 and no later than December 31, 2010. Table 9 shows the calculated 10-year baseline per capita water use for each of the eligible years, while Table 10 shows Mid-Peninsula’s calculated 5-year baseline per capita water use for each of the eligible years. A tabulation of the baseline calculations is found in Appendix C.

<table>
<thead>
<tr>
<th>Table 9</th>
<th>TEN-YEAR BASELINE WATER USE</th>
<th>Average Annual Use in Gallons per Capita per Day (GPCD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>For the 10-Year period ending in:</td>
<td>2004</td>
<td>2005</td>
</tr>
<tr>
<td>GPCD:</td>
<td>128.7</td>
<td>129.4</td>
</tr>
</tbody>
</table>

As can be seen in Table 9, MPWD’s highest 10-year baseline water use occurred during the period ending December 31, 2006. It is 129.7 gpcd, and will be used by the District as its selected 10-year baseline for purposes of determining compliance with the Water Conservation Act of 2009. By comparison, the Department of Water Resources has determined that the statewide baseline water use is 192 gallons per capita per day.

¹ SBX7-7 amends Division 6, Part Section 2.55 of the California Water Code. Entitled Sustainable Water Use and Demand Reduction, it was approved by the Governor on November 10, 2009.
² A fifteen-year period can be used for agencies that meet 10% of their water demand with recycled water. This would not be applicable to the Mid-Peninsula Water District.
Table 10

<table>
<thead>
<tr>
<th>FIVE-YEAR BASELINE WATER USE</th>
<th>Average Annual Use in Gallons per Capita per Day (GPCD)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2007</td>
</tr>
<tr>
<td>For the 5-Year period ending in:</td>
<td>125.6</td>
</tr>
</tbody>
</table>

Table 10 indicates that the highest calculated 5-year baseline water use was 125.6 gpcd, for the periods ending December 31, 2007, and 2008. This level will be used by the District in determining compliance with the Water Conservation Act of 2009.

**E. WATER USE TARGETS**

An urban retail water supplier must set a 2020 water use target and a 2015 interim water target using one of four methods. The supplier has discretion as to which target method\(^1\) to choose so long as the supplier’s water use reduction is no less than 5% of the 5-year base daily per capita usage, unless the base daily per capita use is 100 gallons per day or less.

The Mid-Peninsula Water District has chosen Target Method 3 as its preferred method for determining compliance with Water Conservation Act of 2009’s demand reduction goal. Target Method 3 sets the supplier’s 2020 conservation goal at 95% of the applicable hydrologic region’s target. Mid-Peninsula is in the San Francisco Bay Hydrologic Region (Region 2). The 2015 interim target for Region 2 is 144 gpcd and the 2020 target is 131 gpcd. MPWD’s applicable targets under Method 3 are 137 gpcd in 2015 (95% of 144 gpcd) and 124 gpcd in 2020 (95% of 131 gpcd).

As can be seen from the data in Tables 10 and 11, MPWD’s water consumption for all of the potential baseline periods is lower than the 2015 interim target of 137 gpcd. Even the highest points in the respective baseline periods (129.7 and 125.6) are substantially below this target, and the District expects that it will remain in compliance with the 2015 water use target during the term of this UWMP.

In order to determine the maximum allowable 2020 water use target that the District must achieve in order to comply with SBx7-7, the 2020 target for the hydrologic region must be compared to 95% of the 5-year Baseline Water Use, which is 119.3 gpcd (i.e., 95% of 125.6 = 119.3). Since the 2020 Target for the region (124 gpcd) is higher than 95% of the District’s 5-year

---

\(^1\) The four target methods are:
1) 80% of the 10-year baseline daily per capita use.
2) Per capita daily water use using the sum of performance standards for various categories of service.
3) 95% of the applicable state hydrologic region target.
4) A special approach developed by DWR in December 2010.
Baseline, the District will be obligated to meet a target of 119.3 gpcd. This will represent a 5% reduction in gross water use from the applicable Baseline.

It should be noted that the calculated 5-year Baseline Use for the period ending December 31, 2010 is 119.3 gpcd. Based on this, the District has effectively reached its 2020 Target Level, and will be in compliance with the Water Conservation Act of 2009, as long as it does not allow per capita consumption to increase over the next decade.

As a member of the California Urban Water Conservation Council (CUWCC) and a signatory to the Memorandum of Understanding regarding Urban Water Conservation in California (MOU, the District may choose to demonstrate compliance with the programmatic Best Management Practices\(^1\) (BMPs) using a GPCD water use target option. This method differs somewhat from Target Method 3 under the Water Conservation Act of 2009, discussed above, in that it sets a goal of an 82% reduction in potable water demand by 2018 from a baseline equal to the average consumption in the 1997-2006 period.

MPWD’s 1997-2006 baseline consumption was 129.7 gpcd.\(^2\) In order to meet the BMP compliance goals using the gpcd method the District will have to lower its overall water demand to 106.3 gpcd by 2018. In 2010, the District’s consumption was 108.6 gpcd, indicating that continuing and persistent implementation of the BMPs will be necessary in order for the District to achieve the applicable BMP goal.

Table 11, below, summarizes the applicable Water Use Targets, compared to current water use.

<table>
<thead>
<tr>
<th>Table 11</th>
<th>SUMMARY OF WATER USE TARGETS AND CURRENT USE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applicable Targets:</td>
<td></td>
</tr>
<tr>
<td>2015 SBx7-7 Interim Target</td>
<td>137 gpcd</td>
</tr>
<tr>
<td>2018 BMP Compliance Target</td>
<td>106.3 gpcd</td>
</tr>
<tr>
<td>2020 SBx7-7 Target</td>
<td>119.3 gpcd</td>
</tr>
<tr>
<td>Current Water Use:</td>
<td></td>
</tr>
<tr>
<td>a) 5-yr. average ending in 2010</td>
<td>119.3 gpcd</td>
</tr>
<tr>
<td>b) 2010 actual (1 year)</td>
<td>108.6 gpcd</td>
</tr>
</tbody>
</table>

---

1. See Chapter VII, below for more discussion of the BMPs.
2. Note that this is the same baseline as the one selected for the SBx7-7 compliance described above.
V. PROJECTED WATER DEMAND AND RELIABILITY

A. WATER DEMAND

The City of Belmont grew rapidly in the 1960’s, experiencing a population increase of 187% in that decade. By the early 1970’s, however, most of the easily-developable land had been used and the rate of growth declined precipitously. In 1980, the population of the District was about 24,605,1 and in 1990 it was estimated at 24,860. By 2000, it had grown slightly, to about 25,480 people, and it is currently estimated to be 26,030.2 Based on current population projections it is estimated that the District will serve approximately 29,130 people in 2035.3 (See Table 3, above.)

The job growth rate is expected to be significantly greater than both population and household growth, as the area recovers from the loss of jobs experienced in the recent recession. While population and household growth in the next 25 years is projected to be under 12%, the growth in employment is expected to be approximately 57%. Although job formation does not always correlate well with water demand in the commercial and industrial sectors,4 it is expected that water sales to these sectors will significantly increase over the next 25 years. Currently about 18% of Mid-Peninsula’s water sales go to these sectors, down from 20% in 2005 when the economy was stronger.

Projected water sales and production requirements for the Mid-Peninsula Water District, in 5-year increments to 2035, are depicted in Table 12, below.

---

1 1980 U. S. Census data for Belmont plus 100 people for the San Carlos area served by the District.
2 ABAG, Projections 2009, p. 51, Population of Belmont, plus an estimated 130 residents of San Carlos that are served by the District.
3 Ibid.
4 This is because there is a wide variation in water demand per employee, especially in the industrial and light industrial sectors.
TABLE 12
PROJECTED WATER DEMAND
5-Year Increments, 2015 – 2035

<table>
<thead>
<tr>
<th></th>
<th>2015</th>
<th>2020</th>
<th>2025</th>
<th>2030</th>
<th>2035</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single-Family Residential Sector</td>
<td>2,234 AFY</td>
<td>2,256 AFY</td>
<td>2,256 AFY</td>
<td>2,265 AFY</td>
<td>2,282 AFY</td>
</tr>
<tr>
<td>Multi-Family Residential Sector</td>
<td>586</td>
<td>605</td>
<td>605</td>
<td>618</td>
<td>590</td>
</tr>
<tr>
<td>Commercial Sector</td>
<td>588</td>
<td>645</td>
<td>645</td>
<td>659</td>
<td>760</td>
</tr>
<tr>
<td>Industrial Sector</td>
<td>277</td>
<td>282</td>
<td>282</td>
<td>329</td>
<td>338</td>
</tr>
<tr>
<td>Public Authorities Sector</td>
<td>235</td>
<td>242</td>
<td>242</td>
<td>247</td>
<td>255</td>
</tr>
<tr>
<td>Projected Demand (AFY)</td>
<td>3,920</td>
<td>4,030</td>
<td>4,030</td>
<td>4,118</td>
<td>4,225</td>
</tr>
<tr>
<td>Unaccounted-for water</td>
<td>224</td>
<td>225</td>
<td>225</td>
<td>250</td>
<td>255</td>
</tr>
<tr>
<td>Production Requirement (AFY)</td>
<td>4,144</td>
<td>4,255</td>
<td>4,255</td>
<td>4,369</td>
<td>4,480</td>
</tr>
<tr>
<td>Production Requirement (mgd)</td>
<td>3.7 mgd</td>
<td>3.8 mgd</td>
<td>3.8 mgd</td>
<td>3.9 mgd</td>
<td>4.0 mgd</td>
</tr>
</tbody>
</table>


According to the Belmont Housing Element, about 39% of all new housing will have to be affordable to lower income families. Based on the rate of projected new household formations, this would result in the need for approximately 487 affordable units. The Housing Element has determined that sufficient land is available for between 468-516 affordable units. The projected water demand, should the housing need be fulfilled, would be approximately 122.1 AFY, in aggregate, by 2035 and is included in the overall projections for the residential sectors set fourth in Table 12.

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1 City of Belmont, Belmont Housing Element, p. 2-51; p. 4-31. The Housing Element does not distinguish need in terms of single-family or multi-family units. However, most land resources identified are zoned for multi-family development.
The water demand projections in Table 12 are drawn from data presented in the DSS model\(^1\) developed by Maddus Water Management and utilized in BAWSCA’s Water Conservation Implementation Plan. The model outputs include aggregations of data assembled for possible use by individual BAWSCA members in preparing the 2010 UWMPs. The projections utilized in Table 12 include “plumbing code reductions” to reflect on-going change-outs of existing plumbing fixtures for more water efficient devices and the implementation of conservation measures recommended in the Plan.

Under the terms of the contract with the San Francisco Public Utilities Commission, the District’s maximum contractually guaranteed supply (maximum wholesale allocation) is 4,358.5 AFY (3.891 mgd). The District’s Interim Supply Allocation imposed by the SFPUC, which will remain in effect through 2018, is 4,158.91 AFY (3.71 MGD). As can be seen in Table 12, the Interim Supply Allocation is expected to be sufficient to meet the District’s projected needs in 2015, but the District may exceed its Wholesale Allocation beginning around 2030. These projections do not account for additional conservation initiatives that may be implemented by the District in the future. In order to stay below its maximum wholesale allocation the District will have to achieve an additional conservation reduction of about 122 AFY by 2035, equivalent to about 3% of projected total demand.

The DSS projections in Table 12 run counter to the current trend reflecting declining water use in terms of gpcd (see Tables 9 and 10, and Appendix C). They indicate that the District would not be able to achieve the 2015 goal of 137 gpcd (equivalent to 4,102 AFY), or the 2020 goal of 119.3 gpcd (equivalent to 3,639 AFY). The DSS projections are based on the regional ABAG population and employment projections from 2007, which do not reflect the reductions in employment, business activity and housing construction that began in 2008.\(^2\) The District will review and update the demand projections and the SBx7-7 baselines and targets in the 2015 UWMP, all of which could change substantially depending on local economic factors, including commercial and industrial activity and housing demand.

**B. DROUGHT SCENARIOS**

In dry years the yield of the Regional Water System, which is the District’s sole source of supply, would decline. The SFPUC and BAWSCA members have developed plans to address potential drought scenarios. The Tier One Drought Allocations, described below, sets a framework for sharing available water between San Francisco and the wholesale customers,

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\(^1\) DSS is short for Demand Side Management Least-Cost Planning Decision Support System. The model is a spreadsheet based end-use model in which water usage is broken down from total water production to specific water end uses such as toilets, faucets or irrigation. It was developed for the SFPUC in 2004 for the Wholesale Customer Water Demand Projections (SFPUC) and updated in 2008 for the Water Conservation Implementation Plan (BAWSCA). The update reflects plumbing code provisions adopted after 2004, and utilizes ABAG Projections 2007 for projections of population, employment and household size.

\(^2\) The differences between the DSS model’s future demand estimates and the SBx7-7 estimates may be accounted for by utilizing 2009 projections and 2010 census data in the next iteration of the DSS model.
while the Tier Two Drought Allocations, also described below, establish a methodology for allocating the Wholesale customer share among the BAWSCA members.

1. TIER ONE DROUGHT ALLOCATIONS

In July 2009, in connection with the WSA, the wholesale customers and San Francisco adopted a Water Shortage Allocation Plan (WSAP) to allocate water from the regional water system to retail and wholesale customers during system-wide shortages of 20% or less (the “Tier One Plan”). The Tier One Plan replaced the prior Interim Water Shortage Allocation Plan, adopted in 2000, which also allocated water for shortages up to 20%. The Tier One Plan also allows for voluntary transfers of shortage allocations between the SFPUC and any wholesale customer and between wholesale customers themselves. In addition, water “banked” by a wholesale customer, through reductions in usage greater than required, may also be transferred.

The Tier One Plan, which allocates water between San Francisco and the wholesale customers collectively, distributes water based on the level of shortage, as shown in Table 13:

<table>
<thead>
<tr>
<th>Level of System Wide Reduction in Water Use Required</th>
<th>SFPUC Share</th>
<th>Wholesale Customers Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>5% or less</td>
<td>35.5%</td>
<td>64.5%</td>
</tr>
<tr>
<td>6% through 10%</td>
<td>36.0%</td>
<td>64.0%</td>
</tr>
<tr>
<td>11% through 15%</td>
<td>37.0%</td>
<td>63.0%</td>
</tr>
<tr>
<td>16% through 20%</td>
<td>37.5%</td>
<td>62.5%</td>
</tr>
</tbody>
</table>

The Tier One Plan will expire at the end of the term of the Water Supply Agreement, unless extended by San Francisco and the wholesale customers.¹

2. TIER TWO DROUGHT ALLOCATIONS

The wholesale customers have negotiated and adopted the “Tier Two Drought Implementation Plan” (DRIP), the second component of the Water Shortage Allocation Plan which allocates the collective wholesale customer share among each of the 26 wholesale customers. This Tier Two allocation is based on a formula that takes multiple factors for each wholesale customer into account, including:

- Individual Supply Guarantee;
- Seasonal use of all available water supplies; and

¹ The Water Supply Agreement expires in 2034, with options for one or two five-year extensions.
• Residential per capita use.

The water made available to the wholesale customers collectively will be allocated among them in proportion to each wholesale customer’s Allocation Basis, expressed in millions of gallons per day (mgd), which in turn is the weighted average of two components. The first component is the wholesale customer’s Individual Supply Guarantee, as stated in the WSA, and is fixed.¹ The second component, the Base/Seasonal Component, is variable and is calculated using the monthly water use for three consecutive years prior to the onset of the drought for each of the wholesale customers for all available water supplies. The second component is accorded twice the weight of the first, fixed component in calculating the Allocation Basis. Minor adjustments to the Allocation Basis are then made to ensure a minimum cutback level, a maximum cutback level, and a sufficient supply for certain wholesale customers.

The Allocation Basis is used in a fraction, as numerator, over the sum of all wholesale customers’ Allocation Bases to determine each wholesale customer’s Allocation Factor. The final shortage allocation for each wholesale customer is determined by multiplying the amount of water available to the wholesale customers’ collectively under the Tier One Plan, by the wholesale customer’s Allocation Factor.

The DRIP requires that the Allocation Factors be calculated by BAWSCA each year in preparation for a potential water shortage emergency. As the wholesale customers change their water use characteristics (e.g., increases or decreases in SFPUC purchases and use of other water sources, changes in monthly water use patterns, or changes in residential per capita water use), the Allocation Factor for each wholesale customer will also change. However, for long-term planning purposes, each wholesale customer shall use as its Allocation Factor, the value identified in the Tier Two Plan when adopted.

The Tier Two Plan will expire in 2018 unless extended by the wholesale customers.

The SFPUC has assessed the reliability of its water supply and estimated the frequency and severity of anticipated shortages in the event of drought conditions as have occurred in the historic hydrologic period of 1920 through 2002.² Two drought scenarios are assumed. The first is a single dry year in which the supply from the Hetch Hetchy system is reduced by 10% in response to a request for voluntary conservation. The second scenario assumes multiple dry years: in the first year the San Francisco PUC requests voluntary reductions of 10%. In the second dry year the SFPUC requires 20% conservation by wholesale customers. In the third year local supplies are again at their minimum levels and San Francisco mandates 20% reductions in demand.

The Drought Scenarios are presented in Table 14, below. As can be seen in Table 14, the District's customers would not have to reduce their overall demand in the event of a single year

¹ The Mid-Peninsula Water District’s supply guarantee is 3.891 MGD.
² Letter from Paula Kehoe, Director of Water Resources, SFPUC to Nicole Sandkulla, Senior Water Resources Engineer, BAWSCA, February 22, 2010, with attachments
Projected Water Demand and Reliability

In the event of an extended drought requiring 20% system wide reductions, MPWD could meet its drought allocation with an 11.3% reduction in demand.

**TABLE 14**

DROUGHT SCENARIOS
SINGLE DRY YEAR AND MULTIPLE DRY YEARS
2010 DEMAND LEVEL

<table>
<thead>
<tr>
<th></th>
<th>Purchase Request (2010)</th>
<th>One Critical Dry Year</th>
<th>Multiple Dry Years</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Year 1</td>
</tr>
<tr>
<td>System-Wide Shortage (%)</td>
<td>0%</td>
<td>10%</td>
<td>10%</td>
</tr>
<tr>
<td>Wholesale Allocation</td>
<td>184.0 mgd</td>
<td>152.6 mgd</td>
<td>152.6 mgd</td>
</tr>
<tr>
<td>MPWD Tier 2 Allocation Factor</td>
<td>-</td>
<td>1.97%</td>
<td>1.97%</td>
</tr>
<tr>
<td>MPWD Allocation b</td>
<td>2.83 mgd</td>
<td>3.006 mgd</td>
<td>3.006 mgd</td>
</tr>
<tr>
<td>MPWD Reduction</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
</tr>
</tbody>
</table>

*a* See Table 16 for Drought Scenarios in future years.

*b* Wholesale water demands were very low relative to available supply throughout the Hetch Hetchy system in 2010. Based on information provided by the SFPUC and application of the Tier 1 Drought Allocation Plan and the DRIP, MPWD’s projected drought allocation from the SFPUC in 2010 and immediately thereafter are actually greater than the District’s 2010 purchases of 2.83 mgd (3,167.39 AFY). Mid-Peninsula would be projected to receive up to 3.006 mgd under a 10% system-wide rationing. As such, the District has shown that in 2010, in a critical year drought condition, or in the first year of a multi-year drought, it would be able to get 100% of its SFPUC purchase projections.

**C. RELIABILITY OF THE REGIONAL WATER SYSTEM**

**1. WATER SUPPLY IMPROVEMENT PROGRAM**

The SFPUC’s Water System Improvement Program (WSIP) provides goals and objectives to improve the delivery reliability of the Regional Water System (RWS) including water supply reliability. The goals and objectives of the WSIP related to water supply are:

<table>
<thead>
<tr>
<th>Program Goal</th>
<th>System Performance Objective</th>
</tr>
</thead>
</table>

30
Program Goal | System Performance Objective
--- | ---
Water Supply – meet customer water needs in non-drought and drought periods | • Meet average annual water demand of 265 million gallons per day (mgd) from the SFPUC watersheds for retail and wholesale customers during non-drought years for system demands through 2018.
• Meet dry-year delivery needs through 2018 while limiting rationing to a maximum 20 percent system-wide reduction in water service during extended droughts.
• Diversify water supply options during non-drought and drought periods.
• Improve use of new water sources and drought management, including groundwater, recycled water, conservation, and transfers.

The adopted WSIP had several water supply elements to address the WSIP water supply goals and objectives. The following provides the water supply elements for all year types and the dry-year projects of the adopted WSIP to augment all year type water supplies during drought.

**Water Supply – All Year Types**
The SFPUC historically has met demand in its service area in all year types from its watersheds. They are the:

- Tuolumne River watershed
- Alameda Creek watershed
- San Mateo County watersheds

In general, 85 percent of the supply comes from the Tuolumne River through Hetch Hetchy Reservoir and the remaining 15 percent comes from the local watersheds through the San Antonio, Calaveras, Crystal Springs, Pilarcitos and San Andreas Reservoirs. The adopted WSIP retains this mix of water supply for all year types.

**Water Supply – Dry-Year Types**
The adopted WSIP includes the following water supply projects to meet dry-year demands with no greater than 20 percent system-wide rationing in any one year:

- Restoration of Calaveras Reservoir capacity
- Restoration of Crystal Springs Reservoir capacity
- Westside Basin Groundwater Conjunctive Use
- Water Transfer with Modesto Irrigation District (MID) / Turlock Irrigation District (TID)

In order to achieve its target of meeting at least 80 percent of its customer demand during droughts, the SFPUC must successfully implement the dry-year water supply projects included in the WSIP.
Projected Water Demand and Reliability

Projected SFPUC System Supply Reliability
As noted above, the SFPUC assessed the reliability of its water supply and estimated the frequency and severity of anticipated shortages in the event of drought conditions as have occurred in the historic hydrologic period of 1920 through 2002. These estimates are incorporated into the Drought Scenarios in Table 13 above as the respective wholesale allocations. These allocations assume that the wholesale customers purchase 184 mgd from the RWS through 2030 and the implementation of the dry-water supply projects included in the WSIP. The numbers represent the wholesale share of available supply during historical year types per the Tier One Water Shortage Allocation Plan. This table does not reflect any potential impact to RWS yield from the additional fishery flows required as part of Calaveras Dam Replacement Project and the Lower Crystal Springs Dam Improvements Project.

Impact of Recent SFPUC Actions on Dry Year Reliability of SFPUC Supplies
In adopting the Calaveras Dam Replacement Project and the Lower Crystal Springs Dam Improvements Project, the SFPUC committed to providing fishery flows below Calaveras Dam and Lower Crystal Springs Dam as well as bypass flows below Alameda Creek Diversion Dam. The fishery flow schedules for Alameda Creek and San Mateo Creek represent a potential decrease in available water supply of an average annual 3.9 mgd and 3.5 mgd, respectively with a total of 7.4 mgd average annually. These fishery flows could potentially create a shortfall in meeting the SFPUC demands of 265 mgd and slightly increase the SFPUC’s dry-year water supply needs. If a shortfall occurs, it is anticipated at the completion of construction of both the Calaveras Dam Replacement Project and the Lower Crystal Springs Dam Improvements project in approximately 2015 and 2013, respectively when the SFPUC will be required to provide the fishery flows.

The adopted WSIP water supply objectives include (1) meeting a target delivery of 265 mgd through 2018 and (2) rationing at no greater than 20 percent system-wide in any one year of a drought. As a result of the fishery flows, the SFPUC may not be able to meet these objectives between 2013 and 2018 without (1) a reduction in demand, (2) an increase in rationing, or (3) a supplemental supply. The following describes these actions.

Reduction in Demand. The current projections for purchase requests through 2018 remain at 265 mgd. However, in the last few years, SFPUC deliveries have been below this level, as illustrated in Table 15. If this trend continues, the SFPUC may not need 265 mgd from its watersheds to meet purchase requests through 2018. As a result, the need for supplemental supplies of 3.5 mgd starting in 2013 and increasing to 7.4 mgd in 2015 to offset the water supply loss associated with fish releases may be less than anticipated.
Projected Water Demand and Reliability

<table>
<thead>
<tr>
<th>TABLE 15</th>
<th>RECENT WATER DELIVERIES IN SFPUC SERVICE AREA</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FY 2006</td>
</tr>
<tr>
<td>Total Deliveries a</td>
<td>247.5 mgd</td>
</tr>
</tbody>
</table>

a Reference: SFPUC FY09-10 J-Table Line 9 “Total System Usage” plus 0.7 mgd for Lawrence Livermore National Laboratory use and 0.4 mgd for Groveland. No groundwater use is included in this number. Unaccounted-for-Water is included.

Increase in Rationing. The adopted WSIP provides for a dry year water supply program that, when implemented, would result in system-wide rationing of no more than 20 percent. The PEIR identified the following drought shortages during the design drought; 3.5 out of 8.5 years at 10 percent rationing and 3 out of 8.5 years at 20 percent. If the SFPUC did not develop a supplemental water supply in dry years to offset the effects of the fishery flows on water supply, rationing would increase during dry years. If the SFPUC experiences a drought between 2013 and 2018 in which rationing would need to be imposed, rationing would increase by approximately 1 percent in shortage years. Rationing during the design drought would increase by approximately 1 percent in rationing years.

Supplemental Supply. The SFPUC may be able to manage the water supply loss associated with the fishery flows through the following actions and considerations:
- Development of additional conservation and recycling
- Development of additional groundwater supply
- Water transfer from Modesto and/or Turlock Irrigation Districts
- Increase in Tuolumne River supply
- Revising the Upper Alameda Creek Filter Gallery Project capacity1
- Development of a desalination project

1 The adopted WSIP included the Alameda Creek Fishery Enhancement project, since renamed the Upper Alameda Creek Filter Gallery (UACFG) project, which had the stated purpose of recapturing downstream flows released under a 1997 California Department of Fish and Game MOU. Implementation of the UACFG project was intended to provide for no net loss of water supply as a result of the fishery flows bypassed from ACDD and/or released from Calaveras Dam. At the time the PEIR was prepared, the UACFG was described in the context of recapturing up to 6300 AF per year. The UACFG will undergo a separate CEQA process in which all impacts associated with the project will be analyzed fully.
Meeting the Level of Service Goal for Delivery Reliability. The SFPUC has stated a commitment to meeting its contractual obligation to its wholesale customers of 184 mgd and its delivery reliability goal of 265 mgd with no greater than 20 percent rationing in any one year of a drought. In Resolution No. 10-0175 adopted by the Commission on October 15, 2010, the Commission directed staff to provide information to the Commission and the public by March 31, 2011 on how the SFPUC has the capability to attain its water supply levels of service and contractual obligations. This directive was in response to concerns expressed by the Commission and the Wholesale Customers regarding the effect on water supply of the in-stream flow releases required as a result of the Lower Crystal Springs Dam Improvement Project and the Calaveras Dam Replacement Project. In summary, the SFPUC has a projected shortfall of available water supply to meet its LOS goals and contractual obligations. The SFPUC has stated that current decreased levels of demand keep this from being an immediate problem, but that in the near future, the SFPUC must resolve these issues. Various activities are underway by the SFPUC to resolve the shortfall problem. SFPUC staff will report back to the Commission by August 31, 2011 to provide further information on actions to resolve the shortfall problem.

2. CLIMATE CHANGE

The issue of climate change has become an important factor in water resources planning in the State, and is frequently being considered in urban water management planning purposes, though the extent and precise effects of climate change remain uncertain. As described by the SFPUC in its Final Water Supply Availability Study for the City and County of San Francisco, dated October 2009, there is evidence that increasing concentrations of greenhouse gasses have caused and will continue to cause a rise in temperatures around the world, which will result in a wide range of changes in climate patterns. Moreover, there is evidence that a warming trend occurred during the latter part of the 20th century and will likely continue through the 21st century. These changes will have a direct effect on water resources in California, and numerous studies have been conducted to determine the potential impacts to water resources. Based on these studies, climate change could result in the following types of water resource impacts, including impacts on the watersheds in the Bay Area:

- Reductions in the average annual snowpack due to a rise in the snowline and a shallower snowpack in the low and medium elevation zones, such as in the Tuolumne River basin, and a shift in snowmelt runoff to earlier in the year;
- Changes in the timing, intensity and variability of precipitation, and an increased amount of precipitation falling as rain instead of as snow;
- Long-term changes in watershed vegetation and increased incidence of wildfires that could affect water quality;
- Sea level rise and an increase in saltwater intrusion;
- Increased water temperatures with accompanying potential adverse effects on some fisheries and water quality;
- Increases in evaporation and concomitant increased irrigation need; and
Changes in urban and agricultural water demand.

According to the SFPUC, other than the general trends listed above, there is no clear scientific consensus on exactly how climate change will quantitatively affect the state’s water supplies, and current models of water systems in California generally do not reflect the potential effects of climate change.

Initial climate change modeling completed by the SFPUC indicates that about seven percent of runoff currently draining into Hetch Hetchy Reservoir will shift from the spring and summer seasons to the fall and winter seasons in the Hetch Hetchy basin by 2025. This percentage is within the current interannual variation in runoff and is within the range accounted for during normal runoff forecasting and existing reservoir management practices. The predicted shift in runoff timing is similar to the results found by other researchers modeling water resource impacts in the Sierra Nevada due to warming trends associated with climate change.

The SFPUC has stated that based on this preliminary analysis, the potential impacts of climate change are not expected to affect the water supply available from the San Francisco Regional Water System (RWS) or the overall operation of the RWS through 2030.

The SFPUC views assessment of the effects of climate change as an ongoing project requiring regular updating to reflect improvements in climate science, atmospheric/ocean modeling, and human response to the threat of greenhouse gas emissions. To refine its climate change analysis and expand the range of climate parameters being evaluated, as well as expand the timeframes being considered, the SFPUC is currently undertaking two additional studies. The first utilizes a newly calibrated hydrologic model of the Hetch Hetchy watershed to explore sensitivities of inflow to different climate change scenarios involving changes in air temperature and precipitation. The second study will seek to utilize state-of-the-art climate modeling techniques in conjunction with water system modeling tools to more fully explore potential effects of climate change on the SFPUC water system as a whole. Both analyses will consider potential effects through the year 2100.

**3. 2018 INTERIM SUPPLY LIMITATION**

As part of its adoption of the Water System Improvement Program (WSIP) in October 2008, discussed separately herein, the Commission adopted a water supply element, the Interim Supply Limitation, to limit sales from San Francisco Regional Water System (RWS) watersheds to an average annual of 265 million gallons per day (mgd) through 2018. The wholesale customers’ collective allocation under the Interim Supply Limitation is 184 mgd and San Francisco’s is 81 mgd. Although the wholesale customers did not agree to the Interim Supply Limitation, the WSA provides a framework for administering the Interim Supply Limitation.
BAWSCA has developed a strategy to address each of its member agencies’ unmet needs flowing from the Interim Supply Limitation through its Water Conservation Implementation Plan and the Long-term Reliable Water Supply Strategy, separately addressed herein.

**Interim Supply Allocations**

The Interim Supply Allocations (ISAs) refers to each individual wholesale customer’s share of the Interim Supply Limitation (ISL). On December 14, 2010, the Commission established each agency’s ISA through 2018. In general, the Commission based the allocations on the lesser of the projected fiscal year 2017-18 purchase projections or Individual Supply Guarantees. The ISAs are effective only until December 31, 2018 and do not affect the Supply Assurance or the Individual Supply Guarantees, both discussed separately herein. San Francisco’s Interim Supply Allocation is 81 million gallons per day (mgd).

The Mid-Peninsula Water District’s ISA is 3.71 mgd. (See Table 4).

As stated in the Water Supply Agreement, the wholesale customers do not concede the legality of the Commission’s establishment of the ISAs and Environmental Enhancement Surcharge, discussed below, and expressly retain the right to challenge either or both, if and when imposed, in a court of competent jurisdiction.

**Environmental Enhancement Surcharge**

The Commission plans to establish the Environmental Enhancement Surcharge concurrently with the budget-coordinated rate process. This surcharge will be unilaterally imposed by SFPUC on individual wholesale customers, and SFPUC retail customers, when each agency’s use exceeds their Interim Supply Allocation and when sales of water to the wholesale customers and San Francisco retail customers, collectively, exceeds the Interim Supply Limitation of 265 mgd.

The SFPUC is in the process of developing the methodology and amount of this volume-based charge. The Environmental Enhancement Surcharge will become effective beginning fiscal year 2011-12.

**D. WASTEWATER DISPOSAL AND WASTEWATER RECLAMATION OPPORTUNITIES**

1. **Wastewater Disposal Facilities and Available Supplies**

The Cities of Belmont and San Carlos are responsible for the collection of sewage in the District’s service area. The South Bayside Systems Authority (SBSA), a four member Joint Powers Authority, undertakes treatment and disposal. The members include the cities of
Belmont, San Carlos, and Redwood City, plus the West Bay Sanitary District. SBSA operates a major sub-regional treatment plant south of the San Mateo Bridge, providing sewage treatment service for over 200,000 people on the Peninsula from Belmont and Redwood Shores south to Menlo Park and west to Portola Valley.

The treatment plant has a designed capacity of 29 mgd (dry weather flows) and provides tertiary-level treatment. Almost all of the treated effluent is discharged to San Francisco Bay, although there is an ample surplus of reclaimed water available for non-potable uses such as irrigation and industrial applications.

Sewage flows from the Mid-Peninsula Water District’s service area are currently estimated to be approximately 700 mg a year (2,148 AFY). The SBSA monitors flows from its various sub-regional pump stations, but the land area that drains to the Belmont pump station is not contiguous with the MPWD boundaries, so sewage generation from within the MPWD boundaries can only be estimated. Projections of future wastewater flows from the City of Belmont, prepared by SBSA consultants, indicate that sewage generation will increase slowly over the next 25 years, from 693 mg/year (2,053 AFY) in 2015 to 756 mg/year (2,320 AFY) in 2035. The City of Belmont is believed to account for more than 80% of the flows from the MPWD service area.

In 1991, the Mid-Peninsula Water District joined several local water agencies and municipalities in the preparation of a Reclaimed Water Master Plan. The Master Plan identified 231 potential users, including a small number within the District’s boundaries. The Master Plan concluded that these users could take about 4.0 mgd and estimated that the capital investment for pipelines and related facilities needed to transport the reclaimed water to all of these users would be $67 million (1991 dollars). Annual operations and maintenance costs were estimated at $1.1 million (1991).

Although it was concluded that the costs of implementing the full Master Plan would be too high, subsequent investigations indicated that less ambitious projects, in geographic proximity to the treatment plant would be feasible. In 2000, Redwood City and SBSA initiated the First Step project, which provided and distributed 0.25 mgd of non-potable unrestricted recycled water for landscape irrigation to customers at the eastern end of Redwood Shores peninsula in Redwood City. The project was successful and was extended for two additional two-year periods (2002-2004 and 2004 - 2006). In 2004 the project distributed 32.7 mg of recycled water for landscaping, a truck fill station for construction dust control and other uses.

In 2005, the City of Redwood City and SBSA initiated design and construction of permanent recycled water treatment and storage facilities at the treatment plant and an expanded distribution pipeline system. This project now supplies recycled water to customers in

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1 Whitley Burchett & Associates, 2008
Redwood Shores, the “Greater Bayfront Area,” and the Port of Redwood City. In 2009, the system delivered 360 AF of recycled water, and there are currently 47 active irrigation sites.¹

Consistent with the conclusions of the 1991 Master Plan, cost-effective delivery of recycled water from the SBSA plant to potential irrigation sites in Belmont is not feasible, and the District does not expect that reclaimed water will be available within the District boundaries in the foreseeable future. To summarize, while a portion of the wastewater generated within the District’s boundaries is recycled by SBSA for use in Redwood City, the District has no plans to distribute recycled water, or to construct facilities to distribute recycled water within its boundaries, nor to develop financial incentives to promote recycled water use.

¹ City of Redwood City, Connections: Recycled Water Project Update, Summer, 2010.
VI. WATER SHORTAGE CONTINGENCY PLAN

A. INTRODUCTION

Section 10632 of the California Water Code requires Urban Water Management Plans to include the preparation of a water shortage contingency analysis. The first part of the Water Shortage Contingency Plan presented in this chapter describes the Mid-Peninsula Water District’s emergency plan for responding to a sudden water shortage or water quality emergency such as might occur during a prolonged power outage, a major fire, or in the event of significant system damage from a major earthquake. The second part of the Water Shortage Contingency Plan describes the District’s planning to address potential long-term water shortage conditions that could occur following one or more years of low precipitation (a drought), or in the event of a loss of a significant part of the District’s source of supply.

B. WATER SUPPLY EMERGENCY RESPONSE

The District has a written Emergency Operating Plan, designed to provide guidance and direction for the activities of the District’s staff both during an emergency and in mobilizing the post disaster response. Key provisions of the plan are summarized below:

Readiness. The District’s primary emergency operations center is located at the District office, at 3 Dairy Lane in Belmont. The center is equipped with radios, telephones, emergency power equipment, and supplementary documents and supplies. Diagrams and summaries of exchange capacities at interconnections between adjoining water systems and information on designated emergency connection sites are available. In addition, emergency pumps and equipment for portable hydrant systems are available at District Headquarters. The emergency operations center would be the central point of coordination for government services, communications, and emergency public information.

A secondary emergency operations center is located at the Hallmark Storage Station. It has emergency power, telephone and radio transmitters. System maps are also available and are stocked, as well, in all of the District’s maintenance vehicles.

Communication protocols have been established and damage evaluation procedures have been defined. In the immediate period following a major disaster, such as an earthquake, the District’s initial task would be to evaluate the water supply system and file a status report with the General Manager as quickly as possible.

The emergency operating center staffing would include a designated field manager plus additional staff to help coordinate disaster control activities and communicate with the public. Other key District personnel would be assigned specific roles depending on the magnitude of
the emergency as well as the time of occurrence. On non-business days and after hours, the District has 24-hour response capability, which can be initiated by calls from the local Police Departments or the Fire District.

The District has assembled an inventory of equipment and spare parts, and maintains key vehicles in a “ready to respond” condition. The District also has arrangements with several local contractors for emergency backhoe and underground work, in the event there is more damage than the District’s staff can manage.

**Response.** The goal of the District’s post disaster response is to maintain the water transmission and storage system intact and operational to the greatest extent possible. Emergency response protocols specify the leadership role of the Field Manager (or his designee), procedures for activating the Emergency Operations Center, mobilization of necessary staff and other forces, and taking action to cope with the particular situation.

Procedures for maintaining communication with the on-site personnel and other emergency service workers such as fire and police operations are established, as are procedures for calling upon private underground contractors and requesting that other utility providers shut down services in affected areas, if necessary.

The Emergency Operating Plan also calls for staff at the emergency operations center to assemble information logs on the service activities, equipment and material used, estimates of damage, records of mutual aid or assistance requested, financial expenditures, etc. If necessary, the Board of Directors would be assembled to make a Declaration of Emergency. The Board President and/or the General Manager would responsible for media contacts and press briefings, as necessary.

The repair or shut down work would be coordinated from the EOC and field crews would report progress to the emergency operations team. Regular progress reports would then be filed with the appropriate Police Department and/or Fire District.

The Emergency Operating Plan specifically addresses a number of plausible emergency response scenarios including loss of supply, electric service interruptions, bomb threats, riots, contamination of the water supply, earthquakes, and major fires.

**C. STAGED RESPONSE PLAN FOR WATER SUPPLY SHORTAGES**

**1. INTRODUCTION**

The Mid-Peninsula Water District has in the past, and will continue in the future, to respond to water supply shortages on an individual basis as they develop. Generally, for droughts or any other long-term water supply shortage, the District will implement a program of water
conservation measures that will result in use restrictions proportional to the severity of the reductions needed. In the past, such use restrictions have been associated with droughts. Although the circumstances surrounding future droughts (or any other long-term supply shortages) may not be identical to the droughts that the District has faced in the past thirty years, the programs of voluntary and mandatory rationing developed in response to the increasingly severe actual or potential shortages in 1989 - 1992 provide the District with its model for planning future responses to severe water shortages.

As noted in Chapter V, B, above, the SFPUC has prepared predictive models of the supplies that would be available to its respective wholesale purchasers in single and multiple year drought scenarios in which aggregate demand on the Hetch Hetchy system would have to be reduced. Table 14, above, shows the projected MPWD deliveries under single and multiple-year droughts should they have occurred under 2010 demand conditions. Table 16, below, identifies the potential conservation requirements should any of these drought scenarios occur in any of the future consecutive 5-year planning periods. These scenarios consider the projected delivery capabilities of the Hetch Hetchy system in any given planning period in conjunction with the SFPUC/BAWSCA agreements and formulas that were developed to fairly allocate the potential cutbacks between a) San Francisco city and suburban areas (the Tier 1 Allocations), and b) among the 26 suburban wholesale purchasers (the Tier 2 DRIP Allocations).
As can be seen in Table 16, in the event of a severe drought it is possible that the District will have to ask its customers to respond as aggressively as they did during the 1989-92 drought, when they reduced demand by over 30%. It is likely, however, that a rationing program requiring a 30% - 35% reduction in demand would be more difficult to implement in the future than it was during the last major drought, because on-going conservation and plumbing fixture replacements have lowered the base per-capita and per-connection levels of consumption.
It should also be noted that the potential demand reduction requirements in Table 16 represent a worst-case scenario, and that the level of potential demand reduction will be lower if the District succeeds in achieving its SBx7-7 goals for per capita water use. For example, if the SBx7-7 goal for 2020 (119.3 gpcd) is achieved the reduction requirement in a single dry year and first year of a multi-year drought (in 2020) would be 7.5% as contrasted to 21%, while the reduction requirement in subsequent years of a multi-year drought would be 20% instead of 31%.

Nevertheless, the programs of voluntary and mandatory rationing developed in response to the increasingly severe shortages in 1989 - 1992 provide the District with its model for planning future responses to severe water shortages. This plan was updated in the 2005 UWMP and is described below.

## 2. Four Stage Plan

The four-stage plan of increasingly stringent rationing presented in Table 17 was developed for the District’s 2000 Water Shortage Contingency Plan and has been updated to reflect the currently projected 2025 population and water demand. Stage One is an example of the type of program that would be implemented if there were an 11% reduction in supplies, assuming the projected 2025 population. Stage Two is a more aggressive program, designed to result in a savings of up to 18%. The Stage One and Two programs are voluntary, however the Stage Two program could be made mandatory if the compliance rates are not sufficient to meet its goals.

The Stage Three and Stage Four programs would be mandatory and would include penalties and/or excess use charges to enforce compliance.

The Stage Three contingency program would result in an estimated water demand of 2,757 AFY (assuming 2025 population levels). This would be almost 32% lower than the projected 2025 demand and should be sufficient to respond to any projected SFPUC/BAWSCA supply reductions.

The Stage Four program is even more austere. It would result in a projected 2025 water demand of about 2,020 AFY. This would be 50% lower than the demand projected for a year of normal precipitation with 2025 population levels.

It is important to recognize that the programmatic responses in all the stages are planning guidelines; the District’s actual response to a water shortage emergency will always require action by the Board of Director’s and nothing in this Plan is intended to limit the District’s available options in tailoring a unique and specific program to respond to any future water shortages.
D. MANDATORY PROHIBITIONS TO REDUCE WATER USE

In the past, the District has implemented a number of increasingly broad mandatory restrictions on water use in response to increasingly severe water shortages. Programs under both the voluntary and mandatory Stages would include prohibitions on wasteful use of water such as any use which results in runoff to gutters or streets, use of water to clean hard surfaces such as sidewalks, driveways, patios, etc., use of water for vehicle washing except with a positive-shutoff nozzle, service of water in restaurants except on request, use of water on new landscaping unless it consists of low water using, drought-tolerant plants. The Stage Four program would incorporate even more restrictive prohibitions such as total prohibitions on the use of water for certain construction purposes, for any swimming pools, for all car washing, or for any new landscaped areas.
As noted in the previous section, the District’s response to a Stage Three through Stage Four water shortage would include mandatory reductions in water use specified by user category.

**E. CONSUMPTION LIMITS**

The District's response to any recognized water shortage requiring the adoption of a mandatory water-rationing program would include consumption limits on a per capita basis for residential customers and a percentage reduction from a normal base year level of usage for non-residential customers. The District’s program would involve higher limitations on water used outdoors than on indoor water use.

**F. PENALTIES OR CHARGES FOR EXCESS USE**

In past water shortages, the District’s conservation pricing structure has added an extra tier with a much higher unit cost for water use higher than base year use in the comparable period. This is effectively an excess use charge. It is expected that in the future, any mandatory water-rationing program adopted by the District would include similar modifications to the rate structure.

**G. IMPACTS ON REVENUES AND EXPENDITURES**

Successful water rationing programs lead to reduced water sales and revenues to the District. However, the District's expenditures do not decline in proportion to reduced sales, because such a large part of the expenditures are related to fixed capital costs or on-going maintenance and operations. Consequently, water rates must typically be increased during years of water shortages, when water-rationing programs are implemented. To minimize the potential financial impacts of a water shortage contingency, the District is building a capital reserve fund of $2.5 million, an emergency reserve of $2.0 million and a working capital reserve of $0.5 million. In the event of a water shortage condition, these funds could be used to offset all or a portion of the reduction in revenues due to reduced water sales.

The administration of a water-rationing program would also have a definite, but relatively small, impact on the District's general and administrative costs, which must be considered whenever the District's budget is adopted during a water short year.

Revenue from excess use charges is received whenever mandatory water rationing is in effect. These additional revenues can be applied toward administration of the program, or to other programs. Excess use charges, however, cannot make up for the lost revenue from reduced water sales.
H. DRAFT ORDINANCE

The Mid-Peninsula Water District has had actual experience in the implementation of programs very similar to the Stage One through Stage Three programs. The ordinances implementing the past water rationing programs will serve as the model ordinances for any future programs.

I. MECHANISM FOR DETERMINING ACTUAL REDUCTIONS

Since all Mid-Peninsula Water District customers are metered and the sources of supply are metered, the District is able to measure the effectiveness of any water shortage contingency plan that is implemented. As can be seen in Tables 7 and 8, the District collects sufficient data, in the normal course of operations, to determine actual reductions in sales, by user category, as compared to a given base year.
VII. WATER CONSERVATION, BEST MANAGEMENT PRACTICES, AND DEMAND MANAGEMENT MEASURES

A. INTRODUCTION

This chapter describes and evaluates the District’s Water Conservation programs for the 2010-2015 period. It describes the water conservation programs that have been in effect for some time, as well as the Best Management Practices (BMPs) and Demand Management Measures (DMMs) programs that are being implemented.

Since 1991, the Mid-Peninsula Water District has been a signatory to the Memorandum of Understanding regarding Urban Water Conservation in California (MOU) and a member of the California Urban Water Conservation Council (CUWCC). The MOU contains 8 foundational and 6 programmatic Best Management Practices (BMPs) that signatories to the MOU agree to implement as part of their good faith efforts to optimize water savings. The California Urban Water Management Planning Act sets forth 14 Demand Management Measures (DMMs).

The BMPs/DMMs are examples of sound water management practices that have been found to be cost effective and practicable in most instances throughout California. The BMPs are generally consistent with the water conservation practices that have been implemented by the Water District under the existing Urban Water Management Plan (and in some cases, for much longer). The Urban Water Management Planning Act permits an agency to demonstrate compliance with the DMMs by filing a current, completed 2010 BMP report in lieu of documenting DMM compliance in its 2010 Urban Water Management Plan.\(^1\) The Mid-Peninsula Water District has filed its BMP report, and a copy is found in Appendix A. This report demonstrates compliance with the respective DMMs, which are summarized later in this chapter.

B. PREEXISTING WATER CONSERVATION PROGRAMS

A number of important water conservation policies and practices had been implemented by the District prior to the preparation of its 1995 Urban Water Management Plan. These measures include the following:

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\(^1\) California Water Code, §10632(j)
1. **METERING**

All District water connections are metered. This practice is recognized as sound urban water management practice as well as a basic water conservation measure (DMM D). The District's sources of supply are also metered, and the supply meters can be cross-checked against sales data to allow the District to identify water lost in the transmission/distribution system.

2. **SYSTEM PRESSURE CONTROL PROGRAM**

The District operates with 9 pressure zones and has installed a number of pressure reduction stations at locations throughout the District so as to reduce high static pressures in its system and at individual water connections. Pressure management is particularly important for the District because of the steep topography in the service area. Pressure reducers help conserve water by reducing the quantities lost when fixtures leak or water is inefficiently applied.

3. **LEAK REDUCTION**

The amount of water lost in the transmission and distribution system has historically been low, estimated 4.1% annually over the past 5 years. It is expected to remain low as a result of the District's pipeline replacement, meter testing and leak detection programs.

*Pipeline Replacements.* The District has an on-going program to replace old and deteriorated pipelines, which account for most leaks. In the past few years the District has invested over $250,000 per year in small pipeline replacement projects yearly. Pipeline segments are selected for replacement based on age and leakage records. The District expects to continue this program for the term of this Plan, and beyond.

*Free Leak Detection Service.* Upon request, District personnel will check for water leakage in a customer's own plumbing system. The District does not charge for this service.

*Alerts by Meter Readers.* The recorders used by the District’s meter readers are set to signal when comparably high or low readings are entered. These alerts are investigated by a customer service technician who checks for meter malfunctions. If none are found, the technician pressure tests the customer’s system to look for leaks, plumbing malfunctions, etc. and recommends corrective actions.

4. **HOME RETROFIT OF PLUMBING FIXTURES**

The District has been providing free water service retrofitting devices since 1978 and continues to provide free kits to customers requesting them. The kits consist of low-flow showerheads, faucet aerators, toilet displacement devices, and dye kits for toilet leak detection. Thousands
have been distributed since the program began. The availability of these home retrofit devices is publicized through bill stuffers and public events.

5. LEAK REPAIRS

District staff repairs all distribution system leaks as quickly as possible after they are discovered.

6. PUBLIC EDUCATION

Since the 1977-78 drought, the District has had an on-going public relations campaign to encourage water conservation. Representatives of the District’s management staff have spoken on water conservation at local service clubs, neighborhood association meetings, etc. In addition, the District’s quarterly newsletter to customers typically includes one or more articles on water conservation topics, and water conservation information is provided on the District’s web site.

The District has purchased and developed a number of pamphlets, flyers and information sheets containing water conservation information. These are available at the District office or can be mailed upon request. The following is a partial list of the brochures and leaflets that are currently available from the District:

- Be a Water Saving Hero
- Water Wise Gardening in the Bay Area
- Sunset Magazine reprint on water conserving plants and garden care
- Water Conservation and Landscaping
- Slow the Flow
- Water Sense Labeled Toilets
- Make Every Drop Count, Tips for Saving Water
- Save Our Water Campaign

C. DEMAND MANAGEMENT MEASURES (DMM’S)

1. DMM A. WATER SURVEY PROGRAMS FOR SINGLE-FAMILY AND MULTI-FAMILY RESIDENTIAL CUSTOMERS (PROGRAMMATIC BMP 3.1. 3.2)

PAST EFFORTS. The District routinely responds to customer concerns about possible leaks or high water bills. In addition, the District’s meter readers and billing clerks have been trained to check for unusual changes in water consumption by comparing past water usage with the current billing data when it is being collected or processed. Customers are notified of any apparent anomalies and are offered free water conservation kits and/or assistance from District staff in checking for potential causes of the identified increases in water use.
As a result, operations personnel have visited many homes and business establishments to conduct pressure tests and plumbing inspections to determine if there is a leak or other source of wasted or misused water. A number of malfunctioning toilets, faucets and irrigation devices are discovered and repaired annually as a result of this program, which will continue to be implemented on an on-going basis.

The District believes that its on-going program of responding to customer concerns and identified anomalies on a case-by-case basis is at least as effective as a formal residential survey program, which would require additional staff or an outside contractor, the costs of which would exceed the value of the benefits received.

**BMP IMPLEMENTATION.** During the term of this UWMP, the District will investigate the feasibility of designing a cost-effective residential water survey program, as described by BMPs 3.1 (residential indoor) and 3.2 (residential landscaping). The District has a very small staff and would most likely have to engage a specialized outside contactor to design a program and perform the surveys. At the current cost of water, the benefits from a survey program may not be sufficiently high to warrant the investment, particularly considering the benefits of investments in other DMMs, as described below.

In addition, the District will also continue to notify customers with anomalous increases in water consumption when identified by billing records and will offer home water conservation kits, and, upon request, residential surveys in order to assist these customers.

Residential Water Survey programs will be considered in future Urban Water Management Plans, and, assuming that the cost of water from the regional system rises as projected, residential surveys may become more cost-effective in future years. The District will continue its efforts to maximize distribution efficiency and reduce the volume of lost and unmetered water, and will also continue to aggressively respond to all customer concerns regarding leaks and unusually high water usage.

The District staff believes that the volume of un-metered water, which is already low by industry standards, will be further reduced during the term of this Plan as a result of continuing pipeline replacement programs, the current system-wide water audit (DMM C, below), and meter upgrades.

**2. DMM B. RESIDENTIAL PLUMBING RETROFIT (PROGRAMMATIC BMP 3.1)**

**PAST EFFORTS.** The District has operated a voluntary residential water conservation program almost continuously since the severe drought of 1976-77, although the program has been given extra emphasis during the years when mandatory conservation has been in effect.
The program consists of the distribution of water conservation kits containing informational packets, toilet displacement devices, low flow showerheads and dye tablets for toilet leak detection. It is thought that over 3,000 residential retrofit kits have been distributed since 1986.

**BMP IMPLEMENTATION:** The District will continue to implement BMP 3.1 during the term of this UWMP, and will document its progress through the CUWCC BMP reporting system.

### 3. DMM C. DISTRIBUTION SYSTEM AUDITS AND LEAK DETECTION AND REPAIR (FOUNDATIONAL BMP 1.2)

**PAST EFFORTS.** The District completes a leak detection survey of the entire distribution system every other year. Each survey requires about a month and is completed by an outside contractor working at night (when it is quieter) with highly sensitive listening technology. Any leaks found in the distribution system are repaired as quickly as possible.

Daily monitoring of system pressures from around the District's complex system of pressure zones and storage tanks allows the staff to identify anomalies in the operating parameters that may indicate new leaks. Suspect areas can be inspected and monitored to quickly identify leaks, which are then repaired. Pipeline segments that show a history of multiple leaks are routinely replaced, either by District staff or by outside contractors.

The District also tests all large meters bi-annually and conducts random tests of small meters from various locations around the District annually.

The District has not had unmetered water volumes higher than 9% of production in any of the past 35 years; since 1990 unmetered water has ranged from a low of 1% in 1996 to a high of 7.7% in 2000. Over the past 5 years it has averaged 6.1%. Since a portion of unmetered water can be accounted for (i.e. fire fighting, hydrant flushing, etc.) the level of unaccounted-for water is even lower.

**BMP IMPLEMENTATION:** Because of the low level of unaccounted-for water the District is in full compliance with BMP 1.2. Nevertheless, the District conducts a system wide audit every other year.

The District recognizes the value of system audits and leak detection programs in reducing water losses and in minimizing the volume of unaccounted-for water. Leak detection efforts, pipeline replacements, and all related efforts to maintain a tight and efficient distribution system will be continued throughout the term of this Plan.

### 4. DMM D. METERING WITH COMMODITY RATES (FOUNDATIONAL BMP 1.3)

**CURRENT PROGRAM.** The Mid-Peninsula Water District is fully metered and bills all customers by volume of use. The current inclining block rate structure provides financial incentives for
conservation by all of its customers. It has a 4-tier residential rate structure with a low (“Lifeline”) charge of $2.40 per unit for the first 2 units per monthly billing period, a higher rate of $4.60 per unit for 3-10 units, and 3rd tier rate of $5.45 for 11-25 units and a still higher charge of $6.15 per unit for 26 units or more per billing period. All non-residential (commercial) customers are billed on a 2-tier inclining block rate with a cost of $4.52 for the first 5 units and $4.84 for 6 units and higher.

The District considers the 4-tier residential rate structure to be a very effective water conservation measure and notes that residential water use has dropped by 500 AFY, or 18.3%, over the past 10 years, while the population grew by about 2.2%.

**BMP Implementation:** BMP 1.3 has been fully implemented for many years and will be continued. The inclining block rate structure applies to all residential customers, which account for over 76% of the District’s water sales.

**5. DMM E. LARGE LANDSCAPE CONSERVATION PROGRAMS AND INCENTIVES (PROGRAMMATIC BMP 5)**

**Past Efforts.** The largest irrigators in the District include the City of Belmont, with irrigation meters at Hallmark Park, Twin Pines Park, Island Park and others, Caltrans, with several irrigation meters for landscaped rights-of-way, and the College of Notre Dame with several water meters for landscape accounts. The cost of water has proven to be the primary incentive for these users to carefully manage their water usage and initiate water conservation efforts.

**BMP 5 IMPLEMENTATION:** In conjunction with BAWSCA, the District is offering Landscape Water Efficiency Training courses and will continue to do so during the term of this Plan. The District is also in compliance with the California Model Water Efficient Landscape Ordinance (as revised in 2009), and will work with its largest irrigation water customers to support all efforts to improve efficiency and encourage conservation.

For large commercial or institutional accounts without dedicated irrigation meters (but with large landscape irrigation use) the District will offer the following services when found to be cost effective:

a. Preparation of a voluntary water use budget;

b. Installation of a dedicated landscape water meter.

Implementation of this program would generally satisfy the implementation criteria for BMP 5. In addition, the District will continue to maintain the water efficient demonstration garden at the District’s headquarters.
6. DMM F. HIGH-EFFICIENCY WASHING MACHINE REBATE PROGRAM (PROGRAMMATIC BMP 3.3)

**PAST EFFORTS.** The District has offered rebates for high-efficiency clothes washers since 2001. The rebate programs have been conducted jointly with BAWSCA and coordinated with parallel energy efficiency rebate programs sponsored by PG&E.

**BMP 3.3 IMPLEMENTATION.** The District intends to continue offering High Efficiency Washing Machine Rebates in conformance with BMP 3.3. As occurred in 2005 and 2007, the qualifying criteria for rebates will tighten so as to offer incentives for customers to purchase machines with water use factors that are lower than the current plumbing code requirements.

7. DMM G. PUBLIC INFORMATION (FOUNDATIONAL BMP 2.1)

The Mid-Peninsula Water District has an on-going public information program and has conducted community outreach and public education activities in past years. (See B, 6, above.) In the early 1990's the public information program efforts were aimed at motivating people to respond to the specific drought emergencies that were occurring, while in recent years the public information efforts have focused on general water conservation and wise water use.

**BMP 2.1 IMPLEMENTATION:** Activities that have been accomplished in past years and will be continued in the coming 5-year UWMP cycle include the following:

**Brochures and Flyers.** The District typically prepares and mails Newsletters to all customers on a quarterly basis. The Newsletters have included articles and information on water conservation issues and have informed customers of the types of assistance the District can offer to help customers conserve. They have also included yearly water quality reports to customers.

Water conservation messages such as *Make Every Drop Count* and *Tips for Saving Water* are also routinely included in District communications with customers questioning bills, or raising other related questions.

Water conservation flyers and brochures have been kept at the reception desk in the District Office and made available to interested customers coming to pay bills or make inquiries. Many brochures have been distributed through this means.

In the event of a drought, or pending drought, the District will use general mailings, separate from the monthly billings, to announce water conservation programs, whether voluntary or mandatory, and to appeal to customers to reduce their water consumption. These efforts would be supported with stepped-up public information initiatives using a variety of local media outlets.
Bill Stuffer Inserts. The District has the ability to distribute informational water bill inserts. They can be obtained from BAWSCA, AWWA and other sources, or developed in-house. The District will continue to use bill stuffer inserts to communicate with customers throughout the term of this plan.

Past Usage Information. The District includes past usage information on customer bills and will continue to do so in coming years.

In past dry years, mandatory water conservation programs implemented by the District have been announced with ads in the San Mateo Times and The Independent. In the event of a future drought, the District will again implement an active advertising effort to reinforce the need for active citizen participation in the conservation effort.

Demonstration Gardens. The District maintains a demonstration garden at the District headquarters at 3 Dairy Lane, and a second demonstration garden at 1513 Folger Drive in Belmont (the former District office). The gardens showcase drought tolerant landscape plantings that are appropriate for Belmont. All the plants are labeled so that customers can identify them for purchase at local nurseries.

Service Club Presentations. The General Manager, Conservation Coordinator and Board Members make presentations to local service clubs (Chamber of Commerce, Kiwanis, SIRS, etc.) whenever requested and are available to make presentations to homeowner and neighborhood associations or other community groups on water supply and water conservation related topics. These efforts will be continued through the term of this plan.

Web Site. The District’s web site (www.midpeninsulawater.org) has a section on Water Conservation. It provides information about the District’s rebate programs, free water conservation kits, and water conserving landscaping and yard irrigation practices.

8. DMM H. SCHOOL PROGRAMS (FOUNDATIONAL BMP 2.2)

Past and Current Activities. Beginning in 1999, Mid-Peninsula sponsored the participation of 20 students in Water Kollege, a week-long summer educational camp developed for the Water District by Kollage Community School For the Arts in Belmont as a creative and user-friendly approach to water conservation at the elementary school level.

From these roots the “Water Wise” program was developed and adopted by the Bay Area Water Supply and Conservation Agency (BAWSCA). As a BAWSCA member, Mid-Peninsula has made the “Water Wise” program available to students within the District. Under this program participating students are provided with kits containing water efficient products and educational materials, which they then install, monitor and evaluate under the guidance of the program staff. BAWSCA also offers EarthCapade Assembly programs to school districts, these popular programs combine circus style entertainment with a water conservation and environmental education focus.
**BMP 2.2 IMPLEMENTATION.** The District will continue to work with BAWSCA and faculties of the Belmont/Redwood Shores Elementary School District to support water education programs in the local schools. Both WaterWise and EarthCapades will continue to be offered and the District will continue to include a line item in the annual budget for funding public information and school programs (DMM 2.1 and 2.2). These funds are typically used to support field trips for grade 3-5 students in the District’s service area and for an annual calendar contest.

**9. DMM I. CONSERVATION PROGRAMS FOR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL (CII) ACCOUNTS (PROGRAMMATIC BMP 4)**

**Past Efforts.** The District has only about 475 commercial accounts, 80 industrial accounts and 80 institutional/public authority accounts. However, in aggregate they average about 24% of total water sales. The District has responded to requests for water audits and conservation suggestions to all customers in these categories as they have been made. Many of the public authority accounts are for irrigation meters, which are addressed in DMM E.

The District reviews the landscape plans and inside water fixture appliances for all new commercial/industrial customers. This ensures landscaping and water fixtures that require low water use are installed before the new customer is connected to the District’s system. The District also offers rebates for high efficiency toilet retrofits to CII customers, up to a maximum of 6 per account. Beginning in 2004 and continuing into the term of the 2005 UWMP, the District implemented a low flow spray rinse nozzle program for restaurants and commercial kitchens. The long-term water savings from this program were estimated to be as high as 5.6 AF a year.

The implementation program for BMP 4 is quite specific and very staff intensive. It would require the District to identify and rank all CII users by sector, contact the largest accounts and offer and conduct water surveys for them.

**BMP 4 IMPLEMENTATION.** Because of concerns regarding staffing availability, possible customer resistance, and potentially limited benefits, the District has claimed an exemption from BMP 4, and will focus on other, more efficient programs for the CII sector during the term of this UWMP. Recognizing that the cost of water is potentially the most powerful of all conservation incentives, the District has adopted a 2-tier inclining block rate structure for all commercial, industrial and public authority customers.

The District will also consider adopting an indoor water use efficiency ordinance to ensure full compliance with recent plumbing code and green building code modifications in new construction.
10. DMM J. WHOLESALE AGENCY ASSISTANCE PROGRAMS (FOUNDATIONAL BMP 1.1.3)

DESCRIPTION. This demand management BMP requires wholesale water suppliers to provide financial incentives, or equivalent resources, to their retail water agency customers for the advancement of water conservation efforts.

BMMP 1.1.3 IMPLEMENTATION. Since the Mid-Peninsula Water District is not a wholesale water supplier, this BMP would not be applicable to the District.

11. DMM K. CONSERVATION PRICING (FOUNDATIONAL BMP 1.4)

EXISTING RATE STRUCTURE. As described above (DMM D), the Mid-Peninsula Water District has a 4-tier inclining block rate for all residential customers and a 2-tier inclining block rate for all commercial, institutional and irrigation accounts.

The Mid-Peninsula Water District has no jurisdiction over sewer rates, which are set by the Cities of Belmont and San Carlos. The City of Belmont charges by volume of use, which is based on the Water District’s sales to individual accounts during wet weather months. The current rate is $3.57/hcf, based on the annualized average of water consumption in the winter months. The sewer charges are billed annually in conjunction with the collection of property taxes.

BMP 1.4 IMPLEMENTATION. The District’s pricing structure is in full conformance with DMM K/BMP 1.4.

12. DMM L. CONSERVATION COORDINATOR (FOUNDATIONAL BMP 1.1.1)

DESCRIPTION. This BMP calls for the agency to designate a water conservation coordinator and support staff (if necessary) whose duties are to include the coordination and oversight of conservation programs, the preparation and submittal of annual BMP Implementation Reports, the coordination of conservation programs with operations staff and with management, and related activities.

BMP 1.1.1 IMPLEMENTATION. The District has a Conservation Coordinator/Customer Service Representative, and is in compliance with BMP 1.1.1. The conservation coordination work occupies about one-half of this person’s time. The Conservation Coordinator’s activities include administering the HEWS and HET rebate programs, the school programs, the public information programs, responding to customer concerns about possible leaks, and filing the annual BMP compliance reports.
13. DMM M. WATER WASTE PROHIBITION (FOUNDATIONAL BMP 1.1.2)

DESCRIPTION. This BMP calls for water agencies to enact and enforce certain prohibitions against wasteful water use on an on-going basis, i.e. during drought and non-drought periods. The ordinances should prohibit, at a minimum, gutter flooding, non-recirculating fountains, non-recirculating systems in any new car wash or commercial laundry installations, and any new single-pass cooling systems.

PAST ACTIVITIES. The Mid-Peninsula Water District’s Rule 21 has prohibited the waste of water, as well as certain non-essential uses of water, since 1991. Rule 21 provisions address both normal operating conditions and water shortage emergency conditions. The rule provides for potentially more stringent penalties for non-compliance during water shortage emergencies, up to and including citations for a misdemeanor violation. In non-emergency times the District still has the ability to issue warnings and, ultimately, to discontinue service if the provisions of Rule 21 are violated. The wasteful water use practices, in both drought and non-drought times, that are prohibited by Rule 21 include the following:

   a) Use of potable water for backfill consolidation or other non-domestic construction purposes when reclaimed water or water from other sources is available;

   b) Use of water when the customer has been given notice to repair broken plumbing, sprinkler, or irrigation systems and has not done so after a warning setting a reasonable time for repair;

   c) Use of water that results in flooding or runoff to gutters, streets, storm drains, watercourses, or other unlandscaped areas;

   d) Use of water for washing vehicles, sidewalks, buildings, or other hard surfaced areas with a hose, unless the hose has a positive shutoff nozzle or valve.

In addition, Rule 21 expands the definition of prohibited water uses during declared water emergencies to include such uses as the filling of new swimming pools and installation of new water dependent landscaping.

BMP 1.1.2 IMPLEMENTATION. With Rule 21, the Mid-Peninsula Water District has appropriately implemented DMM M and is in compliance with BMP 1.1.2.

14. DMM N. RESIDENTIAL ULTRA LOW FLUSH TOILET REPLACEMENT (PROGRAMMATIC BMP 3.4)

PAST ACTIVITIES. The District participates in the BAWSCA-administered High Efficiency Toilet rebate program. It offers rebates as high as $150 has an on-going ULF toilet rebate program for
all customers (residential and commercial, alike). The program has been promoted in press releases, bill stuffers, the District’s website, and at community outreach events.

**BMP 3.4 Implementation.** The District is in compliance with BMP 3.4.

**15. OTHER POTENTIAL CONSERVATION MEASURES**

In the *Water Conservation Implementation Plan* (2009), BAWSCA evaluated a suite of potential conservation measures with the goal of identifying a group that could be feasibly implemented and achieve the goal of reducing water consumption among the BAWSCA members by 10 mgd by 2018. The screening process reviewed potential water conservation measures included in the 2004 SFPUC’s *Wholesale Customer Water Conservation Potential* report plus 18 potential new measures. The screening and evaluation considered targeted customer types, range in unit costs, and potential water savings. Five conservation programs were selected for implementation. They include:

1. High Efficiency Toilet Rebate Program
2. Education/Training Program for Residential Landscape Water Use Efficiency
3. High Efficiency Washing Machine Rebates
4. New Building Indoor Water Efficiency Regulations
5. New Building Landscape Water Efficiency Regulations

BAWSCA has determined that implementation of these measures on a regional basis has the potential to achieve a water savings of 8.4 mgd by 2018, and, as a member of BAWSCA, the Mid-Peninsula Water District intends to implement all of these programs. Programs 1-3 are incorporated into DMMs F, G and N, as described above.

**E. IMPLEMENTATION PROGRAM AND SCHEDULE**

Table 18 summarizes the District's implementation program for the *Urban Water Management Plan*. The implementation program is based on a five-year time horizon, beginning in 2011. The schedule is intended to provide general guidance to the District for the enactment of the water conservation programs described in this report. The Board of Directors will maintain full flexibility in funding and scheduling the various programs, and the implementation schedule may be modified as a result of Board actions. As required by State law, the entire plan will be reviewed after five years.
### TABLE 18
IMPLEMENTATION PLAN SUMMARY

<table>
<thead>
<tr>
<th>DMM #</th>
<th>Program</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Residential Water Surveys</td>
<td>D</td>
<td>D</td>
<td>D</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>2</td>
<td>Residential Plumbing Retrofit</td>
<td>D</td>
<td>D</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>3</td>
<td>System Water Audit, Leak Repairs</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>4</td>
<td>Metering with Commodity Rates</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>5</td>
<td>Large Landscape Conservation</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>6</td>
<td>High-Efficiency Washing Machine Rebates</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>7.</td>
<td>Public Information Program</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>8.</td>
<td>School Programs</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>9.</td>
<td>CII Water Conservation</td>
<td>D</td>
<td>D</td>
<td>D</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>10.</td>
<td>Wholesale Agency Assistance</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>11.</td>
<td>Conservation Pricing</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>12.</td>
<td>Water Conservation Coordinator</td>
<td>E</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>13.</td>
<td>Water Waste Prohibition</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td>14</td>
<td>Ultra Low Flush Toilet Replacement</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
<tr>
<td></td>
<td>- Wastewater Reclamation</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td></td>
<td>- CII ULFT Program</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
<td>O</td>
</tr>
</tbody>
</table>

Key to Symbols:

- = No Activity  
O = Ongoing Program  
D = Develop Program  
E = Expand Program  
NA = Not Applicable
# CUWCC BMP RETAIL COVERAGE REPORT 2009-2010

**Foundation Best Management Practices for Urban Water Efficiency**

**Agency:** Mid Peninsula Water District  
**District Name:** Mid Peninsula Water District  
**CUWCC Unit #:** 14  
**Primary Contact:** Jonesette Kalibotos  
**Telephone:** 650-381-6941  
**Email:** jkalibotos@midpeninsula.gov

**Compliance Option Chosen By Reporting Agency:** (Traditional, Flex Track or GPCD)  
**GPCD If used:**

<table>
<thead>
<tr>
<th>Year</th>
<th>Report</th>
<th>Target</th>
<th>Highest Acceptable Bound</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>% Base</td>
<td>GPCD</td>
<td>% Base</td>
</tr>
<tr>
<td>2010</td>
<td>1</td>
<td>96.4%</td>
<td>129</td>
</tr>
<tr>
<td>2012</td>
<td>2</td>
<td>92.8%</td>
<td>123</td>
</tr>
<tr>
<td>2014</td>
<td>3</td>
<td>92.2%</td>
<td>120</td>
</tr>
<tr>
<td>2016</td>
<td>4</td>
<td>85.8%</td>
<td>113</td>
</tr>
<tr>
<td>2018</td>
<td>5</td>
<td>82.0%</td>
<td>110</td>
</tr>
</tbody>
</table>

Not on Track if 2010 GPCD is > than target  
Highest Acceptable GPCD for 2010: On Track
### Foundational BMPs

**BMP 1.1 Operational Practices**

<table>
<thead>
<tr>
<th>2009</th>
<th>2010</th>
<th>Conservation Coordinator provided with necessary resources to implement BMPs?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>On Track</td>
</tr>
</tbody>
</table>

1. Conservation Coordinator provided with necessary resources to implement BMPs:

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joannet</td>
<td>Klaboie</td>
<td><a href="mailto:jeannette.klaboie@midpenwater.org">jeannette.klaboie@midpenwater.org</a></td>
</tr>
</tbody>
</table>

2. Water waste prevention documentation:

<table>
<thead>
<tr>
<th>Descriptive File</th>
<th>URL</th>
<th>URL 2010</th>
<th>Describe Ordinance Terms</th>
<th>Describe Ordinance Terms 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>On Track</td>
<td>On Track</td>
<td>On Track</td>
<td>On Track</td>
<td>On Track</td>
</tr>
</tbody>
</table>

See Article 4, Section 4.2, page 9 - Water Waste on http://www.midpeninsulawater.org/view/142
### BMP 1.2 Water Loss Control

<table>
<thead>
<tr>
<th>Requirement</th>
<th>2012 Status</th>
<th>2013 Status</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete a prescreening Audit</td>
<td>Yes On Track</td>
<td>On Track</td>
<td>On Track if Yes</td>
</tr>
<tr>
<td>Metered Sales</td>
<td>3,205</td>
<td>On Track</td>
<td>On Track if &lt;= 0.89, Not on Track if No</td>
</tr>
<tr>
<td>Variable Other Uses</td>
<td>1,029</td>
<td>On Track</td>
<td>On Track if Yes</td>
</tr>
<tr>
<td>Total Supply</td>
<td>3,222</td>
<td>On Track</td>
<td>On Track if Yes</td>
</tr>
<tr>
<td>(Metered Sales + System losses)/Total Supply</td>
<td>1.54</td>
<td>On Track</td>
<td>On Track if Yes</td>
</tr>
<tr>
<td>If ratio is less than 0.9, complete a full scale Audit in 2010?</td>
<td>Yes On Track</td>
<td>On Track</td>
<td>On Track if Yes</td>
</tr>
<tr>
<td>Verify Data with Records on File?</td>
<td>Yes On Track</td>
<td>On Track</td>
<td>On Track if Yes</td>
</tr>
<tr>
<td>Operate a system Leak Detection Program?</td>
<td>Yes On Track</td>
<td>On Track</td>
<td>On Track if Yes</td>
</tr>
</tbody>
</table>

#### Additional Information

- **Compile Standard Water Audit using ARWA Software?**
  - Yes On Track
  - On Track if Yes, Not on Track if No

- **ARWA file provided to CUWCC?**
  - Yes On Track
  - On Track if Yes, Not on Track if No

- **ARWA Water Audit Validation Score?**
  - 82
  - Info only until 2012

- **Completed Training in ARWA Audit Method?**
  - No
  - Info only until 2012

- **Completed Training in Component Analysis Process?**
  - No
  - Info only until 2012

- **Complete Component Analyzer?**
  - No
  - Info only until 2012

- **Repaired all leaks and breaks to the extent cost effective?**
  - Yes On Track
  - On Track if Yes, Not on Track if No

- **Locate and repair unreported leaks to the extent cost effective.**
  - Yes On Track
  - On Track if Yes, Not on Track if No

- **Maintain a record-keeping system for the repair of reported leaks, including time of report, leak location, type of leaking pipe segment or fitting, and leak running time from report to repair.**
  - Info only until 2012

#### Types of Water Loss Control Info

<table>
<thead>
<tr>
<th>Losses Reported</th>
<th>Value Real Losses</th>
<th>Value Apparent Losses</th>
<th>Mils Surveyed</th>
<th>Percent Reduction</th>
<th>Cost of Intervention</th>
<th>Water Saved</th>
</tr>
</thead>
<tbody>
<tr>
<td>19</td>
<td>$12,287</td>
<td>$193,967</td>
<td>100</td>
<td>Off</td>
<td>$49,340</td>
<td>75.42</td>
</tr>
</tbody>
</table>
1.3 METERING WITH COMMODITY RATES FOR ALL NEW CONNECTIONS AND RETROFIT OF EXISTING CONNECTIONS

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

<table>
<thead>
<tr>
<th>Numbered Unmetered Accounts</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>On Track</td>
<td>On Track</td>
</tr>
<tr>
<td>Metered Accounts billed by volume of use</td>
<td>Yes</td>
<td>On Track</td>
<td>Yes</td>
</tr>
<tr>
<td>Number of CIU accounts with Mixed Use meters</td>
<td>0</td>
<td>0</td>
<td>Info only</td>
</tr>
<tr>
<td>Conducted a feasibility study to assess merits of a program to provide incentives to switch multi-use accounts to dedicated landscape meters?</td>
<td>No</td>
<td>On Track</td>
<td>No</td>
</tr>
<tr>
<td>Feasibility Study provided to CUWCC?</td>
<td>Yes</td>
<td>On Track</td>
<td>No</td>
</tr>
<tr>
<td>Completed a written plan, policy or program to test, repair and replace meters</td>
<td>No</td>
<td>Not On Track</td>
<td>On Track</td>
</tr>
</tbody>
</table>

1.4 Retail Conservation Pricing

<table>
<thead>
<tr>
<th>Customer Class</th>
<th>2009 Rate Type</th>
<th>Conserving Rate?</th>
<th>2010 Rate Type</th>
<th>Conserving Rate?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single-Family</td>
<td>Increasing Block</td>
<td>Yes</td>
<td>Increasing Block</td>
<td>Yes</td>
</tr>
<tr>
<td>Multi-Family</td>
<td>Increasing Block</td>
<td>Yes</td>
<td>Increasing Block</td>
<td>Yes</td>
</tr>
<tr>
<td>Commercial</td>
<td>Increasing Block</td>
<td>Yes</td>
<td>Increasing Block</td>
<td>Yes</td>
</tr>
<tr>
<td>Industrial</td>
<td>Increasing Block</td>
<td>Yes</td>
<td>Increasing Block</td>
<td>Yes</td>
</tr>
<tr>
<td>Other</td>
<td>Increasing Block</td>
<td>Yes</td>
<td>Increasing Block</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Year Volumetric Rates began for Agencies with some Unmetered Accounts

Agencies with Partially Metered Service Areas: If signed MOU prior to 31 Dec. 1997, implementation starts no later than 1 July 2010. If signed MOU after 31 Dec. 1997, implementation starts no later than 1 July 2013, or within seven years of signing the MOU.
### BMP 2. EDUCATION PROGRAMS

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

<table>
<thead>
<tr>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>22</td>
<td>22</td>
</tr>
<tr>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>

1) Contacts with the public (minimum = 4 times per year)

2) Water supplier contacts with media (minimum = 4 times per year, i.e., at least quarterly).

3) An actively maintained website that is updated regularly (minimum = 4 times per year, i.e., at least quarterly).

4) Description of materials used to meet minimum requirement.

<table>
<thead>
<tr>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

- Newsletter articles on conservation
- Flyers and/or brochures, bill stuffers, messages
- Website
- Landscape water conservation media campaign
- Newspaper contacts
- Select a type of media contact
- Select a type of media contact
- Select a type of media contact

5) Annual budget for public outreach program.

<table>
<thead>
<tr>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>$60,000</td>
<td>$60,000</td>
</tr>
</tbody>
</table>

6) Description of all other outreach programs

- Description is too large for text area. Data will be stored in the BMP Reporting database when online.

- Description is too large for text area. Data will be stored in the BMP Reporting database when online.

**On Track for 6 Actions**
### 2.2 School Education Programs Implemented and Reported to CUWCC

<table>
<thead>
<tr>
<th>Question</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does a wholesale agency implement School Education Programs for this utility?</td>
<td>Yes (BAWSCA)</td>
<td>Yes (BAWSCA)</td>
</tr>
<tr>
<td>Name of Wholesale Supplier?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>1) Curriculum materials developed and/or provided by agency</th>
<th>Resource Actions WaterWise Program</th>
<th>Resource Actions WaterWise Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>All 5 actions types implemented and reported to CUWCC to be &quot;On Track&quot;</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

| 2) Materials meet state education framework requirements and are grade-level appropriate? | Yes | Yes |
| 3) Materials Distributed to K-6? | Yes | Yes |
| Describe K-6 Materials | Indoor WaterWise Conservation Kits | Indoor WaterWise Conservation Kits |
| Describe materials to meet minimum requirements | All 5 actions types implemented and reported to CUWCC to be "On Track" |

| Materials distributed to 7-12 students? | No | No  |
| Annual budget for school education program. | $60,000 | $60,000 |

| 4) Description of all other water supplier education programs | Description is too large for text area. Data will be stored in the BMP Reporting database when online. | Description is too large for text area. Data will be stored in the BMP Reporting database when online. |

| See Wholesale Report | 0 | On Track |
| See Wholesale Report | 1 | On Track |
### Table I-2 Urban Water Management Plan checklist, organized by subject

<table>
<thead>
<tr>
<th>No.</th>
<th>UWMP requirement a</th>
<th>Calif. Water Code reference</th>
<th>Additional clarification</th>
<th>UWMP location</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PLAN PREPARATION</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Coordinate the preparation of its plan with other appropriate agencies in the area, including other water suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable.</td>
<td>10620(d)(2)</td>
<td></td>
<td>pps. 2-3</td>
</tr>
<tr>
<td>6</td>
<td>Notify, at least 60 days prior to the public hearing on the plan required by Section 10642, any city or county within which the supplier provides water that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan. Any city or county receiving the notice may be consulted and provide comments.</td>
<td>10621(b)</td>
<td></td>
<td>p. 3 Appendix F</td>
</tr>
<tr>
<td>7</td>
<td>Provide supporting documentation that the UWMP or any amendments to, or changes in, have been adopted as described in Section 10640 et seq.</td>
<td>10621(c)</td>
<td></td>
<td>Appendix F</td>
</tr>
<tr>
<td>54</td>
<td>Provide supporting documentation that the urban water management plan has been or will be provided to any city or county within which it provides water, no later than 60 days after the submission of this urban water management plan.</td>
<td>10635(b)</td>
<td></td>
<td>Appendix F</td>
</tr>
<tr>
<td>55</td>
<td>Provide supporting documentation that the water supplier has encouraged active involvement of diverse social, cultural, and economic elements of the population within the service area prior to and during the preparation of the plan.</td>
<td>10642</td>
<td></td>
<td>Appendix F</td>
</tr>
<tr>
<td>56</td>
<td>Provide supporting documentation that the urban water supplier made the plan available for public inspection and held a public hearing about the plan. For public agencies, the hearing notice is to be provided pursuant to Section 6066 of the Government Code. The water supplier is to provide the time and place of the hearing to any city or county within which the supplier provides water. Privately-owned water suppliers shall provide an equivalent notice within its service area.</td>
<td>10642</td>
<td></td>
<td>Appendix F</td>
</tr>
<tr>
<td>57</td>
<td>Provide supporting documentation that the plan has been adopted as prepared or modified.</td>
<td>10642</td>
<td></td>
<td>Appendix F</td>
</tr>
<tr>
<td>58</td>
<td>Provide supporting documentation as to how the water supplier plans to implement its plan.</td>
<td>10643</td>
<td></td>
<td>Table 18, p. 59</td>
</tr>
<tr>
<td>No.</td>
<td>UWMP requirement</td>
<td>Additional clarification</td>
<td>UWMP location</td>
<td></td>
</tr>
<tr>
<td>-----</td>
<td>------------------</td>
<td>--------------------------</td>
<td>---------------</td>
<td></td>
</tr>
<tr>
<td>59</td>
<td>Provide supporting documentation that, in addition to submittal to DWR, the urban water supplier has submitted this UWMP to the California State Library and any city or county within which the supplier provides water supplies a copy of its plan no later than 30 days after adoption. This also includes amendments or changes.</td>
<td>10644(a)</td>
<td>Appendix F</td>
<td></td>
</tr>
<tr>
<td>60</td>
<td>Provide supporting documentation that, not later than 30 days after filing a copy of its plan with the department, the urban water supplier has or will make the plan available for public review during normal business hours.</td>
<td>10645</td>
<td>Appendix F</td>
<td></td>
</tr>
</tbody>
</table>

**SYSTEM DESCRIPTION**

8. Describe the water supplier service area. 
   - 10631(a) 
   - p. 4; Figs. 1-3

9. Describe the climate and other demographic factors of the service area of the supplier. 
   - 10631(a) 
   - p. 9-10; Table 2

10. Indicate the current population of the service area. 
    - 10631(a) 
    - Provide the most recent population data possible. Use the method described in “Baseline Daily Per Capita Water Use.” See Section M. 
    - Table 3; p. 10

11. Provide population projections for 2015, 2020, 2025, and 2030, based on data from State, regional, or local service area population projections. 
    - 10631(a) 
    - 2035 and 2040 can also be provided to support consistency with Water Supply Assessments and Written Verification of Water Supply documents. 
    - Table 3, p. 10

12. Describe other demographic factors affecting the supplier’s water management planning. 
    - 10631(a) 
    - P. 25 (Job Growth)

**SYSTEM DEMANDS**

1. Provide baseline daily per capita water use, urban water use target, interim urban water use target, and compliance daily per capita water use, along with the bases for determining those estimates, including references to supporting data. 
   - 10608.20(e) 
   - p. 22-24
<table>
<thead>
<tr>
<th>No.</th>
<th>UWMP requirement a</th>
<th>Calif. Water Code reference</th>
<th>Additional clarification</th>
<th>UWMP location</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td><strong>Wholesalers:</strong> Include an assessment of present and proposed future measures, programs, and policies to help achieve the water use reductions. <strong>Retailers:</strong> Conduct at least one public hearing that includes general discussion of the urban retail water supplier's implementation plan for complying with the Water Conservation Bill of 2009.</td>
<td>10608.36 10608.26(a)</td>
<td>Retailers and wholesalers have slightly different requirements</td>
<td>Appendix F</td>
</tr>
<tr>
<td>3</td>
<td>Report progress in meeting urban water use targets using the standardized form.</td>
<td>10608.40</td>
<td></td>
<td>p. 23</td>
</tr>
<tr>
<td>25</td>
<td>Quantify past, current, and projected water use, identifying the uses among water use sectors, for the following: (A) single-family residential, (B) multifamily, (C) commercial, (D) industrial, (E) institutional and governmental, (F) landscape, (G) sales to other agencies, (H) saline water intrusion barriers, groundwater recharge, conjunctive use, and (I) agriculture.</td>
<td>10631(e)(1)</td>
<td>Consider ‘past’ to be 2005, present to be 2010, and projected to be 2015, 2020, 2025, and 2030. Provide numbers for each category for each of these years.</td>
<td>Past &amp; Current: Table 8, p. 20; Projected: Table 12, p. 26</td>
</tr>
<tr>
<td>33</td>
<td>Provide documentation that either the retail agency provided the wholesale agency with water use projections for at least 20 years, if the UWMP agency is a retail agency, OR, if a wholesale agency, it provided its urban retail customers with future planned and existing water source available to it from the wholesale agency during the required water-year types</td>
<td>10631(k)</td>
<td>Average year, single dry year, multiple dry years for 2015, 2020, 2025, and 2030.</td>
<td>Table 14, p. 30</td>
</tr>
<tr>
<td>34</td>
<td>Include projected water use for single-family and multifamily residential housing needed for lower income households, as identified in the housing element of any city, county, or city and county in the service area of the supplier.</td>
<td>10631.1(a)</td>
<td></td>
<td>p. 26</td>
</tr>
</tbody>
</table>

**SYSTEM SUPPLIES**

<p>| 13  | Identify and quantify the existing and planned sources of water available for 2015, 2020, 2025, and 2030. | 10631(b) | The 'existing' water sources should be for the same year as the &quot;current population&quot; in line 10. 2035 and 2040 can also be provided. | Pps. 10 - 12 |
| 14  | Indicate whether groundwater is an existing or planned source of water available to the supplier. If yes, then complete 15 through 21 of the UWMP Checklist. If no, then indicate &quot;not applicable&quot; in lines 15 through 21 under the UWMP location column. | 10631(b) | Source classifications are: surface water, groundwater, recycled water, storm water, desalinated sea water, desalinated brackish groundwater, and other. | NO; p. 12 |</p>
<table>
<thead>
<tr>
<th>No.</th>
<th>UWMP requirement</th>
<th>Calif. Water Code reference</th>
<th>Additional clarification</th>
<th>UWMP location</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>Indicate whether a groundwater management plan been adopted by the water supplier or if there is any other specific authorization for groundwater management. Include a copy of the plan or authorization.</td>
<td>10631(b)(1)</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Describe the groundwater basin.</td>
<td>10631(b)(2)</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>Indicate whether the groundwater basin is adjudicated? Include a copy of the court order or decree.</td>
<td>10631(b)(2)</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>Describe the amount of groundwater the urban water supplier has the legal right to pump under the order or decree. If the basin is not adjudicated, indicate “not applicable” in the UWMP location column.</td>
<td>10631(b)(2)</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>For groundwater basins that are not adjudicated, provide information as to whether DWR has identified the basin or basins as overdrafted or has projected that the basin will become overdrafted if present management conditions continue, in the most current official departmental bulletin that characterizes the condition of the groundwater basin, and a detailed description of the efforts being undertaken by the urban water supplier to eliminate the long-term overdraft condition. If the basin is adjudicated, indicate “not applicable” in the UWMP location column.</td>
<td>10631(b)(2)</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>Provide a detailed description and analysis of the location, amount, and sufficiency of groundwater pumped by the urban water supplier for the past five years</td>
<td>10631(b)(3)</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>Provide a detailed description and analysis of the amount and location of groundwater that is projected to be pumped.</td>
<td>10631(b)(4)</td>
<td>Provide projections for 2015, 2020, 2025, and 2030.</td>
<td>NA</td>
</tr>
<tr>
<td>24</td>
<td>Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis.</td>
<td>10631(d)</td>
<td></td>
<td>p. 15</td>
</tr>
<tr>
<td>30</td>
<td>Include a detailed description of all water supply projects and programs that may be undertaken by the water supplier to address water supply reliability in average, single-dry, and multiple-dry years, excluding demand management programs addressed in (f)(1). Include specific projects, describe water supply impacts, and provide a timeline for each project.</td>
<td>10631(h)</td>
<td></td>
<td>pps. 12-16</td>
</tr>
<tr>
<td>31</td>
<td>Describe desalinated water project opportunities for long-term supply, including, but not limited to, ocean water, brackish water, and groundwater.</td>
<td>10631(i)</td>
<td></td>
<td>p. 12</td>
</tr>
<tr>
<td>44</td>
<td>Provide information on recycled water and its potential for use as a water source in the service area of the urban water supplier. Coordinate with local water, wastewater, groundwater, and planning agencies that operate within the supplier's service area.</td>
<td>10633</td>
<td></td>
<td>p. 12</td>
</tr>
<tr>
<td>No.</td>
<td>UWMP requirement</td>
<td>Calif. Water Code reference</td>
<td>Additional clarification</td>
<td>UWMP location</td>
</tr>
<tr>
<td>-----</td>
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</tr>
<tr>
<td>45</td>
<td>Describe the wastewater collection and treatment systems in the supplier's service area, including a quantification of the amount of wastewater collected and treated and the methods of wastewater disposal.</td>
<td>10633(a)</td>
<td></td>
<td>p. 36</td>
</tr>
<tr>
<td>46</td>
<td>Describe the quantity of treated wastewater that meets recycled water standards, is being discharged, and is otherwise available for use in a recycled water project.</td>
<td>10633(b)</td>
<td></td>
<td>p. 36</td>
</tr>
<tr>
<td>47</td>
<td>Describe the recycled water currently being used in the supplier's service area, including, but not limited to, the type, place, and quantity of use.</td>
<td>10633(c)</td>
<td></td>
<td>p. 36</td>
</tr>
<tr>
<td>48</td>
<td>Describe and quantify the potential uses of recycled water, including, but not limited to, agricultural irrigation, landscape irrigation, wildlife habitat enhancement, wetlands, industrial reuse, groundwater recharge, indirect potable reuse, and other appropriate uses, and a determination with regard to the technical and economic feasibility of serving those uses.</td>
<td>10633(d)</td>
<td></td>
<td>p. 36</td>
</tr>
<tr>
<td>49</td>
<td>The projected use of recycled water within the supplier's service area at the end of 5, 10, 15, and 20 years, and a description of the actual use of recycled water in comparison to uses previously projected.</td>
<td>10633(e)</td>
<td></td>
<td>p. 36</td>
</tr>
<tr>
<td>50</td>
<td>Describe the actions, including financial incentives, which may be taken to encourage the use of recycled water, and the projected results of these actions in terms of acre-feet of recycled water used per year.</td>
<td>10633(f)</td>
<td></td>
<td>p. 36</td>
</tr>
<tr>
<td>51</td>
<td>Provide a plan for optimizing the use of recycled water in the supplier's service area, including actions to facilitate the installation of dual distribution systems, to promote recirculating uses, to facilitate the increased use of treated wastewater that meets recycled water standards, and to overcome any obstacles to achieving that increased use.</td>
<td>10633(g)</td>
<td></td>
<td>pps. 36-38</td>
</tr>
</tbody>
</table>

**WATER SHORTAGE RELIABILITY AND WATER SHORTAGE CONTINGENCY PLANNING**

<table>
<thead>
<tr>
<th>No.</th>
<th>UWMP requirement</th>
<th>Calif. Water Code reference</th>
<th>Additional clarification</th>
<th>UWMP location</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Describe water management tools and options to maximize resources and minimize the need to import water from other regions.</td>
<td>10620(f)</td>
<td></td>
<td>pps. 12-15</td>
</tr>
<tr>
<td>22</td>
<td>Describe the reliability of the water supply and vulnerability to seasonal or climatic shortage and provide data for (A) an average water year, (B) a single dry water year, and (C) multiple dry water years.</td>
<td>10631(c)(1)</td>
<td></td>
<td>pps. 30-34</td>
</tr>
<tr>
<td>23</td>
<td>For any water source that may not be available at a consistent level of use - given specific legal, environmental, water quality, or climatic factors - describe plans to supplement or replace that source with alternative sources or water demand management measures, to the extent practicable.</td>
<td>10631(c)(2)</td>
<td></td>
<td>pps. 20-34</td>
</tr>
<tr>
<td>No.</td>
<td>UWMP requirement</td>
<td>Calif. Water Code reference</td>
<td>Additional clarification</td>
<td>UWMP location</td>
</tr>
<tr>
<td>-----</td>
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</tr>
<tr>
<td>35</td>
<td>Provide an urban water shortage contingency analysis that specifies stages of action, including up to a 50-percent water supply reduction, and an outline of specific water supply conditions at each stage</td>
<td>10632(a)</td>
<td></td>
<td>Table 16, p. 42</td>
</tr>
<tr>
<td>36</td>
<td>Provide an estimate of the minimum water supply available during each of the next three water years based on the driest three-year historic sequence for the agency’s water supply.</td>
<td>10632(b)</td>
<td></td>
<td>Table 14, p. 30</td>
</tr>
<tr>
<td>37</td>
<td>Identify actions to be undertaken by the urban water supplier to prepare for, and implement during, a catastrophic interruption of water supplies including, but not limited to, a regional power outage, an earthquake, or other disaster.</td>
<td>10632(c)</td>
<td></td>
<td>pps. 39-40</td>
</tr>
<tr>
<td>38</td>
<td>Identify additional, mandatory prohibitions against specific water use practices during water shortages, including, but not limited to, prohibiting the use of potable water for street cleaning.</td>
<td>10632(d)</td>
<td></td>
<td>p. 44, Table 16</td>
</tr>
<tr>
<td>39</td>
<td>Specify consumption reduction methods in the most restrictive stages. Each urban water supplier may use any type of consumption reduction methods in its water shortage contingency analysis that would reduce water use, are appropriate for its area, and have the ability to achieve a water use reduction consistent with up to a 50 percent reduction in water supply.</td>
<td>10632(e)</td>
<td></td>
<td>p. 42, Table 16</td>
</tr>
<tr>
<td>40</td>
<td>Indicated penalties or charges for excessive use, where applicable.</td>
<td>10632(f)</td>
<td></td>
<td>pps. 43-45</td>
</tr>
<tr>
<td>41</td>
<td>Provide 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.</td>
<td>10632(g)</td>
<td></td>
<td>p. 45</td>
</tr>
<tr>
<td>42</td>
<td>Provide a draft water shortage contingency resolution or ordinance.</td>
<td>10632(h)</td>
<td></td>
<td>Appendix D</td>
</tr>
<tr>
<td>43</td>
<td>Indicate a mechanism for determining actual reductions in water use pursuant to the urban water shortage contingency analysis.</td>
<td>10632(i)</td>
<td></td>
<td>p. 46</td>
</tr>
<tr>
<td>52</td>
<td>Provide information, to the extent practicable, relating to the quality of existing sources of water available to the supplier over the same five-year increments, and the manner in which water quality affects water management strategies and supply reliability</td>
<td>10634</td>
<td>For years 2010, 2015, 2020, 2025, and 2030</td>
<td>p. 16</td>
</tr>
<tr>
<td>No.</td>
<td>UWMP requirement a</td>
<td>Calif. Water Code reference</td>
<td>Additional clarification</td>
<td>UWMP location</td>
</tr>
<tr>
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<td>---------------</td>
</tr>
<tr>
<td>53</td>
<td>Assess the water supply reliability during normal, dry, and multiple dry water years by comparing the total water supply sources available to the water supplier with the total projected water use over the next 20 years, in five-year increments, for a normal water year, a single dry water year, and multiple dry water years. Base the assessment on the information compiled under Section 10631, including available data from state, regional, or local agency population projections within the service area of the urban water supplier.</td>
<td>10635(a)</td>
<td>Table 14, p. 30; Table 16, p. 42 and related text.</td>
<td></td>
</tr>
</tbody>
</table>

**DEMAND MANAGEMENT MEASURES**

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>Calif. Water Code reference</th>
<th>Additional clarification</th>
<th>UWMP location</th>
</tr>
</thead>
<tbody>
<tr>
<td>26</td>
<td>Describe how each water demand management measure is being implemented or scheduled for implementation. Use the list provided.</td>
<td>10631(f)(1)</td>
<td>Discuss each DMM, even if it is not currently or planned for implementation. Provide any appropriate schedules.</td>
<td>pps. 47-58</td>
</tr>
<tr>
<td>27</td>
<td>Describe the methods the supplier uses to evaluate the effectiveness of DMMs implemented or described in the UWMP.</td>
<td>10631(f)(3)</td>
<td>pps. 47-58</td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>Provide 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 ability to further reduce demand.</td>
<td>10631(f)(4)</td>
<td>pps. 47-58</td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>Evaluate each water demand management measure that is not currently being implemented or scheduled for implementation. The evaluation should include economic and non-economic factors, cost-benefit analysis, available funding, and the water suppliers' legal authority to implement the work.</td>
<td>10631(g)</td>
<td>See 10631(g) for additional wording.</td>
<td>pps. 47-58</td>
</tr>
<tr>
<td>32</td>
<td>Include the annual reports submitted to meet the Section 6.2 requirements, if a member of the CUWCC and signer of the December 10, 2008 MOU.</td>
<td>10631(j)</td>
<td>Signers of the MOU that submit the annual reports are deemed compliant with Items 28 and 29.</td>
<td>Appendix A</td>
</tr>
</tbody>
</table>

---

a The UWMP Requirement descriptions are general summaries of what is provided in the legislation. Urban water suppliers should review the exact legislative wording prior to submitting its UWMP.

b The Subject classification is provided for clarification only. It is aligned with the organization presented in Part I of this guidebook. A water supplier is free to address the UWMP Requirement anywhere with its UWMP, but is urged to provide clarification to DWR to facilitate review.
**Mid-Peninsula Water District**

**Baseline Calculations**

<table>
<thead>
<tr>
<th>Year</th>
<th>Population</th>
<th>Gross Water Use (mg)</th>
<th>GPCD</th>
<th>Baseline Water Use Calculation Period ending:</th>
<th>Current Water Use Period Ending:</th>
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<tbody>
<tr>
<td>1994</td>
<td>25,218</td>
<td>1,113.4</td>
<td>121.0</td>
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<tr>
<td>1995</td>
<td>25,445</td>
<td>1,052.5</td>
<td>113.3</td>
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<td>1996</td>
<td>25,672</td>
<td>1,125.4</td>
<td>120.1</td>
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<td>1997</td>
<td>25,899</td>
<td>1,259.5</td>
<td>133.2</td>
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<td>1998</td>
<td>26,126</td>
<td>1,180.7</td>
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<td>1999</td>
<td>26,353</td>
<td>1,305.2</td>
<td>135.7</td>
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<td>2000</td>
<td>26,580</td>
<td>1,338.25</td>
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<tr>
<td>2001</td>
<td>26,590</td>
<td>1,277.69</td>
<td>131.6</td>
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<tr>
<td>2002</td>
<td>26,600</td>
<td>1,273.80</td>
<td>131.2</td>
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<td>2003</td>
<td>26,610</td>
<td>1,206.31</td>
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<td>2004</td>
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<td>26,630</td>
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<td>2006</td>
<td>26,514</td>
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<td>2007</td>
<td>26,400</td>
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<td>2008</td>
<td>26,286</td>
<td>1,193.37</td>
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<td>2009</td>
<td>26,172</td>
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<td>2010</td>
<td>26,050</td>
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<td>108.5</td>
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<td></td>
<td></td>
<td></td>
<td><strong>Calculated Baseline:</strong></td>
<td>128.7</td>
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</table>
SFPUC EMERGENCY RESPONSE PLANNING

Planning, Training and Exercise

Following San Francisco’s experience with the 1989 Loma Prieta Earthquake, the SFPUC created a departmental SFPUC Emergency Operations Plan (EOP). The SFPUC EOP, originally released in 1992, and has been updated on average every two years. The latest plan update will be released in Spring, 2011. The EOP addresses a broad range of potential emergency situations that may affect the SFPUC and that supplements the City and County of San Francisco’s Emergency Operations Plan prepared by the Department of Emergency Management and most recently updated in 2008. Specifically, the purpose of the SFPUC EOP is to describe the department’s emergency management organization, roles and responsibilities and emergency policies and procedures.

In addition, SFPUC divisions and bureaus have their own EOPs that are in alignment with the SFPUC EOP and describe each division’s/bureau’s specific emergency management organization, roles and responsibilities and emergency policies and procedures. The SFPUC tests its emergency plans on a regular basis by conducting emergency exercises. Through these exercises the SFPUC learns how well the plans will or will not work in response to an emergency. Plan improvements are based on exercise and sometime real world event response and evaluation. Also, the SFPUC has an emergency response training plan that is based on federal, state and local standards and exercise and incident improvement plans. SFPUC employees have emergency training requirements that are based on their emergency response role.

Emergency Drinking Water Planning

In February 2005, the SFPUC Water Quality Bureau published a City Emergency Drinking Water Alternatives report. The purpose of this project was to develop a plan for supplying emergency drinking water in the City after damage and/or contamination of the SFPUC raw and/or treated water systems resulting from a major disaster. The report addresses immediate response after a major disaster. Since the publication of this report, the SFPUC has implemented a number of projects to increase its capability to support the provision of emergency drinking water during an emergency. These projects include:

- Public Information and materials for home and business
- Designation and identification of 67 emergency drinking water hydrants throughout San Francisco
- Purchase of emergency related equipment including water bladders and water bagging machines to help with distribution post disaster
- Coordinated planning with City Departments, neighboring jurisdictions and other public and private partners to maximize resources and supplies for emergency response
With respect to emergency response for the SFPUC Regional Water System, the SFPUC has prepared the *SFPUC Regional Water System Emergency Response and Recovery Plan* (ERRP), completed in 2003 and updated in 2006. The purpose of this plan is to describe the SFPUC RWS emergency management organizations, roles and responsibilities within those organizations, and emergency management procedures. This contingency plan addresses how to respond to and to recover from a major RWS seismic event, or other major disaster. The ERRP complements the other SFPUC emergency operations plans at the Department, Division and Bureau levels for major system emergencies.

The SFPUC has also prepared in an *SFPUC-Suburban Customer Water Supply Emergency Operations and Notification Plan*. The plan was first prepared in 1996 and has been updated several times – most recently in July of 2010. The purpose of this plan is to provide contact information, procedures and guidelines to be implemented by the following entities when a potential or actual water supply problem arises: the SFPUC Water Supply and Treatment Division (WS&TD), Water Quality Bureau (WQB), and SFPUC wholesale customers, BAWSCA, and City Distribution Division (CDD – considered to be a customer for the purposes of this plan). For the purposes of this plan, water quality issues are treated as potential or actual supply problems.

**Power Outage Preparedness and Response**

SFPUC’s water transmission system is primarily gravity fed, from the Hetch Hetchy Reservoir to the City and County of San Francisco. Within San Francisco’s in-city distribution system, the key pump stations have generators in place and all others have connections in place that would allow portable generators to be used.

Although water conveyance throughout the RWS would not be greatly impacted by power outages because it is gravity fed, the SFPUC has prepared for potential regional power outages as follows:

- The Tesla disinfection facility, the Sunol Valley Water Treatment Plant, and the San Antonio Pump Station, have back-up power in place in the form of generators or diesel powered pumps. Additionally, both the Sunol Treatment Plant and the San Antonio Pump Station would not be impacted by a failure of the regional power grid because it runs off of the SFPUC hydro-power generated by the RWS.
- Both the Harry Tracy Water Treatment Plant and the Baden Pump Station have back-up generators in place.
- Additionally, as described in the next section, the WSIP includes projects which will expand the SFPUC’s ability to remain in operation during power outages and other emergency situations.

**Capital Projects for Seismic Reliability and Overall System Reliability**

As discussed in Section III, D of this UWMP, the SFPUC is also undertaking a WSIP in order to enhance the ability of the SFPUC water supply system to meet identified service goals for water quality, seismic reliability, delivery reliability, and water supply. The WSIP projects include several projects located in San Francisco to improve the seismic reliability of the in-city distribution system, as well as many projects related to the SFPUC RWS to address both
seismic reliability and overall system reliability. All WSIP projects are expected to be completed by 2016.

In addition to the improvements that will come from the WSIP, San Francisco has already constructed the following system interties for use during catastrophic emergencies, short-term facility maintenance and upgrade activities, and in times of water shortages:

- A 40 mgd system intertie between the SFPUC and the Santa Clara Valley Water District (Milpitas Intertie); and
- One permanent and one temporary intertie to the South Bay Aqueduct, which would enable the SFPUC to receive State Water Project water.

The WSIP includes intertie projects, such as the EBMUD-Hayward-SFPUC Intertie. The SFPUC and EBMUD have completed construction of this 30 mgd intertie between their two systems in the City of Hayward, as part of the WSIP.

The WSIP also includes projects related to standby power facilities at various locations. These projects will provide for standby electrical power at six critical facilities to allow these facilities to remain in operation during power outages and other emergency situations. Permanent engine generators will be provided at four locations (San Pedro Valve Lot, Millbrae Facility, Alameda West, and Harry Tracy Water Treatment Plant), while hookups for portable engine generators will be provided at two locations (San Antonio Reservoir and Calaveras Reservoir).
APPENDIX D
ENABLING ORDINANCE FOR
WATER RATIONING PROGRAMS
ARTICLE 5. SPECIAL WATER USE REGULATIONS DURING PERIODS OF WATER SHORTAGES

5.1 General. In the event of a water shortage emergency caused by drought or other circumstance, the District may adopt any necessary ordinances, rules or regulations in accordance with California Water Code Sections 350-59, as amended from time to time, and which Sections are incorporated herein by this reference, in addition to the general water use regulations in Article 4.

5.2 Enforcement of Water Use Regulations. In the event that the District adopts ordinances, rules and regulations to address a water shortage emergency, the District's General Manager, officers and employees are authorized to enforce the water use regulations in accordance with specific remedies authorized by the Board as well as those remedies authorized by law. California Water Code Section 31029, as amended from time to time, which is incorporated herein by this reference, makes it a misdemeanor to violate emergency restrictions subject to imprisonment up to 30 days, a fine up to $600, or both.
APPENDIX F
PUBLIC NOTICES,
RESOLUTION OF ADOPTION
AND
RECORD OF DISTRIBUTION
Notice on Billings:

---

**Notification of water charges**

<table>
<thead>
<tr>
<th>METER</th>
<th>CURRENT</th>
<th>PREVIOUS</th>
<th>UNITS</th>
<th>GALLONS</th>
<th>DAYS</th>
<th>GALLONS PER DAY</th>
</tr>
</thead>
<tbody>
<tr>
<td>5/8</td>
<td>332</td>
<td>325</td>
<td>10</td>
<td>5,236</td>
<td>27</td>
<td>194</td>
</tr>
</tbody>
</table>

Last Year ▲

---

**Total Charges Now Due:** 41.10

---

**Notice of Preparation of the Urban Water Management Plan (UWMP):**

We are currently reviewing and updating our UWMP. We invite public participation while we go through the process. A public meeting to discuss proposed revisions to the plan will be announced shortly. Should you have any questions, please contact the District office.

---

**Account Information:**

- **Account No:** 01084106
- **Billing Date:** 03/31/2011
- **Delinquent Date:** 04/20/2011

**Water Service:**

- **From:** 02/17/11
- **To:** 03/16/11

---

**Water Charges:**

<table>
<thead>
<tr>
<th>USAGE</th>
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<th>AMOUNT</th>
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</thead>
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<td>2</td>
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<td>4.80</td>
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<tr>
<td>5</td>
<td></td>
<td>4.60</td>
<td>23.00</td>
</tr>
</tbody>
</table>

**Capital Expense CHG:** 13.30

---

**Tired of Paying by Check Every Month?**

See Back of Bill For Payment Options

---

**Keep this portion for your records:**
Jeanette Kalabolas

From: Henry Young
Sent: Thursday, March 03, 2011 2:53 PM
To: 'Nasser, Mansour'; Nicole Sandkula; akurotori@santacalara.ca.gov; alex.arneli@hayward-ca.gov; amorinoto@burlingame.org; Carl Lemke; Carrasco, Anthony; Cathy Abou-Remelah; ddickson@coastalwater.org; dbarnrow@westboroughwater.com; eric.carwright@acwd.com; Flegel, Elizabeth; gregg.hosfeld@mountainview.gov; James Craig; Jerry Flanagan; jezell@redwoodcity.org; kpthaios@ci.milpitas.ca.gov; kfabry@sanbruno.ca.gov; kloconnell@ncwd.com; ksteffens@menlopark.org; acmoffice2415@yahoo.com; marty@bonair.stanford.edu; mrose@ci.sunnyvale.ca.us; mdeby@hillsca.org; psweeland@dalycity.org; pwalter@purissimawater.org; Paul Regan; Procos, Nicolas; Randy Breault; rtottu@menlopark.org; rpop@ci.millbrae.ca.us; rtowned@fostercity.org; Thomas.Niesar@acwd.com; tmcuiffe@burlingame.org; tmanager@belmont.gov; 'maltile@cityofsanluisobispoca.gov'
Cc: Anona Dutton; Art Jensen; Von Bargen, Craig; Fernandez, William; Bob Bowcock; Kevin Sage; Carlos Martinez; mbolzowski@calwater.com; Alicia Sangiuliano; alison.tumer@mountainview.gov; Aparna Chatterjee; Brendan McCarthy; Brent Chester; cbrennan@coastalwater.org; Cindy Bertsch; croyer@dalycity.org; Dana Jacobson; ECooney@HILLSBOROUGH.NET; Elvert, Catherine; gnnathan@amwater.com; hsalamanca@ci.milpitas.ca.gov; jwalter@calwater.com; Jeanette Kalabolas; Khris Kuehnneck; Leah Edwards; marilyn.mosher@hayward-ca.gov; Quesada, Nicole; nhawk@santacalara.ca.gov; NDORA@fostercity.org; rskudder@ci.millbrae.ca.us; stephanie.nevins@acwd.com; Toni Harris; tracy@bonair.stanford.edu; vconzett@ci.sunnyvale.ca.us; Virginia Parks; William Lei; Zach Goldber; Quesada, Nicole; 'Doug Donaldson'; 'JEGgermeyer@co.sanmateo.ca.us'
Subject: Mid-Peninsula Water District Urban Water Management Plan Notice of Preparation
Attachments: NoticeofPreparation.doc
To BAWSCA Water Agencies & Staff,

Mid-Peninsula Water District is currently working on updating its Urban Water Management Plan. Please find the District's Notice of Preparation of the 2010 UWMP attached in electronic form. If you would like to receive a hard copy or have any questions, please contact me. If you are not the proper contact for this notice, please forward this to the correct representative for your agency.

Thank you,

Henry Young
Superintendent
Mid-Peninsula Water District
650.591.8941
Notice of Preparation Letters:

March 3, 2011
Mr. Art Jensen, Chief Executive Officer
Bay Area Water Supply and Conservation Agency
155 Bower Road, Suite 302
San Mateo, CA 94402

Re: Urban Water Management Plan Update

This is to notify you that the Mid-Peninsula Water District will be reviewing and updating its Urban Water Management Plan in the coming months. We invite your agency's participation in this process.

We will make any proposed revisions to our plan available for public review and will hold a public hearing on the revised plan prior to its adoption. You will be given notice of the District's meeting in which the Urban Water Management Plan will be considered.

Should you have any questions about our Plan, or the process for updating it, please call me at (650) 591-0941.

Sincerely,

Henry Young
Superintendent

February 25, 2011
Mr. Greg Seiler, City Manager
City of Belmont
1 Twin Peaks Lane, Suite 300
Belmont, CA 94002

Re: Urban Water Management Plan Update

This is to notify you that the Mid-Peninsula Water District will be reviewing and updating its Urban Water Management Plan in the coming months. We invite your agency's participation in this process.

We will make any proposed revisions to our plan available for public review and will hold a public hearing on the revised plan prior to its adoption. You will be given notice of the District's meeting in which the Urban Water Management Plan will be considered.

Should you have any questions, please call me at (650) 591-0941.

Sincerely,

Henry Young
Superintendent

February 25, 2011
Ms. Jeff Halley, Interim City Manager
City of San Carlos
400 El Camino Real
San Carlos, CA 94070

Re: Urban Water Management Plan Update

This is to notify you that the Mid-Peninsula Water District will be reviewing and updating its Urban Water Management Plan in the coming months. We invite your agency's participation in this process.

We will make any proposed revisions to our plan available for public review and will hold a public hearing on the revised plan prior to its adoption. You will be given notice of the District's meeting in which the Urban Water Management Plan will be considered.

Should you have any questions, please call me at (650) 591-0941.

Sincerely,

Henry Young
Superintendent

February 25, 2011
Mr. Daniel Child, General Manager
San Mateo County
1455 Radio Road
Redwood City, CA 94063

Re: Urban Water Management Plan Update

This is to notify you that the Mid-Peninsula Water District will be reviewing and updating its Urban Water Management Plan in the coming months. We invite your agency's participation in this process.

We will make any proposed revisions to our plan available for public review and will hold a public hearing on the revised plan prior to its adoption. You will be given notice of the District's meeting in which the Urban Water Management Plan will be considered.

Should you have any questions, please call me at (650) 591-0941.

Sincerely,

Henry Young
Superintendent
February 25, 2011

Daniel Child, General Manager
South Bayside System Authority
1400 Radio Road
Redwood City, CA 94065-3228

Re: Urban Water Management Plan Update

This is to notify you that the Mid-Peninsula Water District will be reviewing and updating its Urban Water Management Plan in the coming months. We invite your agency's participation in this process.

We will make any proposed revisions to our plan available for public review and will hold a public hearing on the revised plan prior to its adoption. You will be given notice of the District’s meeting in which the Urban Water Management Plan will be considered.

Should you have any questions, please call me at (650) 591-0941.

Sincerely,

Henry Young,
Superintendent
Notices of Availability and of Public Hearing:

Urban Water Management Plan 2010 Public Notification

In compliance with the California Water Code Act, Mid-Peninsula Water District is currently reviewing and updating its Urban Water Management Plan (UWMP) due July 1, 2011. Our current plan was last updated in 2003. Urban water suppliers that serve 3,000 or more customers or that provide over 3,000 acre feet of water annually are required every five years to prepare, update, and adopt a management plan for providing a reliable water supply to their service area. In conjunction with this update California law also requires that the community be given an opportunity to provide plan input. Therefore, we invite your participation throughout this process. A public meeting to discuss proposed revisions to the plan will be announced shortly. Should you have any questions about the UWMP or the update process, please contact the District office during normal business hours, Monday through Friday, 8:00 am-4:30 pm.

Water Rate Increases To Continue

Last year’s annual budget process included an extensive rate analysis conducted by an outside consultant. As a result of the findings, the Board of Directors approved a Five Year Plan with annual rate increases of up to 9% each year. The adopted increase is to take place every July 1. The primary factor driving increased water rates is the San Francisco Public Utilities Commissions’ Water System Improvement Program. MPWD purchases all of its water from the San Francisco Public Utilities Commission (SFPUC), whose main source is the Hetch Hetchy reservoir in the Sierra Nevada. In order to provide system reliability, the SFPUC adopted a Water System Improvement Program (WSIP). In 2002, SFPUC launched the $4.6 billion WSIP to repair, replace, and seismically upgrade the system’s deteriorating pipelines, tunnels, reservoirs, pump stations, storage tanks, and dams. The program includes more than 80 projects from San Francisco to the Central Valley that are to be completed by the end of 2015. In order to finance these benefits, SFPUC has increased both their retail and wholesale rates. Wholesale water rates have increased more than 60% between 2005-06 through 2009-10, and the current projection doubles that from 2010-11 to 2014-15.

The District continues to aggressively manage cost in order to absorb as much of the wholesale rate increase as possible without decreasing the level of service provided to the community. This includes reducing staff size, restricting Capital Improvement expenditures, and finding other ways to reduce the operating budget. Even with a reduced staff and expenses MPWD still strives to fulfill its mission to serve our customers by obtaining and distributing a safe, reliable, high quality supply of water for current and future needs in the most cost efficient manner.

The Board of Directors meet every fourth Thursday at 6:30 pm in the Boardroom located at 3 Dairy Lane in Belmont. We urge all of you to attend these meetings to stay connected and share feedback regarding the current issues at hand.

Congratulations to Bobby Burwell

At Mid-Peninsula Water District we strive for excellence by seeking opportunities to improve the delivery of our services. We would like to congratulate one of our Maintenance Workers, Bobby Burwell on completing and passing the Water Distribution Operator Grade 2 Certification. Bobby celebrated his sixth anniversary with MPWD in February. Our employees are encouraged to further their education to better our water district for you and the generations to follow.

© Spring 2011, Mid-Peninsula Water District. All Rights Reserved
Dear Customer:

The order listed below has been received and processed. If you have any questions regarding this order, please contact your ad coordinator or the phone number listed below.

Customer Account Number: 131566
Type of Notice: HRG - NOTICE OF HEARING
Ad Description: PUBLIC HEARING ON UPDATE OF URBAN WATER MANAGEMENT PLAN
Our Order Number: 2114755
Newspaper: EXAMINER
Publication Date(s): 06/07/2011, 06/14/2011
Sales/Hrg Date: 06/23/2011

Thank you for using the Daily Journal Corporation.

GLENDA SOBRIQUE
DAILY JOURNAL CORPORATION
CALIFORNIA NEWSPAPER SERVICE BUREAU
915 E. FIRST ST., LOS ANGELES, CA 90012
Phone: (800) 789 7840 Ext 5532
Direct: (213) 229 5532
Fax: (800) 474 9444
Jeanette Kalabolas

From: Legals [Legals@mercurynews.com]
Sent: Monday, June 06, 2011 11:20 AM
To: Jeanette Kalabolas
Subject: RE: Legal Notice of Public Hearing - Requested Publication San Mateo Times
Attachments: MID-PENINSULA WATER 4031851.pdf

Jeanette,

Thank you for the email.
I have scheduled the Notice of Public Hearing to publish June 9 and 16, 2011 in the San Mateo County Times. Attached is a copy of the typeset notice for your approval.

Prepayment is preferred. Call or email credit card number, expiration date and name on the credit card.

Approval deadline is Tuesday, June 7, 3:00 p.m. for publication June 9th.

Thank you.

Gwen Robinson
San Jose Mercury News / San Mateo County Times / San Jose City Times
 Classified Legal Advertising
750 Ridder Park Dr., San Jose, CA 95199
(408) 920-5323 voice; (408) 920-1080 fax
legals@mercurynews.com
My hours are Monday-Friday 8:00 am-4:00 pm

Bay Area News Group
Reaching 2.7 million adults every week

--------Original Message--------
From: Jeanette Kalabolas [mailto:jeanettek@midpeninsulawater.org]
Sent: Monday, June 06, 2011 10:29 AM
To: Legals
Subject: Legal Notice of Public Hearing - Requested Publication San Mateo Times

Hello -

Per our conversation this morning attached is a copy of the notice of public hearing that I would like published. I would like the ad to run 1 day a week for two consecutive weeks preferably this week & next if possible. Please provide a price quote & your earliest convenience. Thanks & let me know if you have any questions!

Regards,

Jeanette Kalabolas
Customer Service Representative
Conservation Coordinator
Mid-Peninsula Water District

7/21/2011
MID-PENINSULA
WATER DISTRICT
PUBLIC HEARING
ON UPDATE OF
URBAN WATER
MANAGEMENT PLAN

California law requires
that we review and up-
date our Urban Water
Management Plan every
five years. The Mid-
Peninsula Water District
Board of Directors' will
hold a public hearing to
consider proposed revi-
sions and updates to the
Plan for 2010-2015. The
hearing will be held:

Thursday, June 23, 2011
at 6:30 PM at the
Administrative Office at
3 Dairy Lane,
Belmont, CA 94002

The proposed update to
the Plan is available for
public review at 3 Dairy
Lane, Belmont, CA 94002

Date: June 6, 2011
SMCT#4031851
June 9, 2011
traffic-calming plan

At this time, when you have gas the problems, you just don't have the money to go around and spend it," Sweeney said. "I think you should throw this plan out.

Others said that with the turn restrictions, traffic would be shifted to other neighborhood streets, and said they have no problems with traffic in the neighborhood now.

"It seems like this has been a solution that has been considered in search of a problem that does not exist," resident Patrick Daly said.

"However, if it is implemented in any of the forms that we've seen, I think there will be significant problems."

A "yes" vote by the council would have allowed the city to mail a formal survey to Willow residents and property owners about the changes.

The plan would have been implemented on a six-month trial basis if 50 percent of residents and businesses voted in favor.

After hearing about 30 Willow residents outline why they opposed the plan, council members acknowledged it appeared unlikely to pass. They focused instead on whether the city could revisit less controversial elements of the plan that residents might support.
MID-PENINSULA WATER DISTRICT

PUBLIC HEARING ON UPDATE OF URBAN WATER MANAGEMENT PLAN

California law requires that we review and update our Urban Water Management Plan every five years. The Mid-Peninsula Water District Board of Directors will hold a public hearing to consider proposed revisions and updates to the Plan for 2010 - 2015. The hearing will be held:

Thursday, June 23, 2010 at 6:30 PM at our Administrative Office located at

3 Dairy Lane, Belmont, CA 94002

The proposed update to the Plan is available for public review at 3 Dairy Lane, Belmont, CA 94002.

Date: June 6, 2011
Jeanette Kalabolas

From: Jeanette Kalabolas  
Sent: Monday, May 23, 2011 3:25 PM  
To:  
Cc:  
Subject: FW: Mid-Peninsula Water District 2010 Draft Urban Water Management Plan  

You are receiving this email, as my prior attempt (see below) to forward a draft copy of our 2010 UWMP to your email failed due to maximum size limitations set by your systems. Please note so that you too can access our UWMP I have posted a copy of our proposed draft to our website www.mipeninsulawater.org. On the home page simply click on the bullet at the bottom of the page titled UWMP 2010 or click on the following link:

http://www.mipeninsulawater.org/view/152

Again should you have any questions or wish to receive a hard copy version of this document I can be reached anytime M-F during normal business hours of 8AM-4:30PM at 650-591-8941. If you are not the proper point of contact within your Agency in regards to this matter, please feel free to forward this to the correct representative.

Kind Regards,

Jeanette Kalabolas  
Conservation Coordinator  
Mid-Peninsula Water District  

3 Dairy Lane  
Belmont, CA 94002  
T: (650) 591-8941  
F: (650) 591-4938  
E: jeannettek@midpeninsulawater.org

From: Jeanette Kalabolas  
Sent: Monday, May 23, 2011 2:17 PM  
To:  
Cc:  
Subject: FW: Mid-Peninsula Water District 2010 Draft Urban Water Management Plan  

You are receiving this email, as my prior attempt (see below) to forward a draft copy of our 2010 UWMP to your email failed due to maximum size limitations set by your systems. Please note so that you too can access our UWMP I have posted a copy of our proposed draft to our website www.mipeninsulawater.org. On the home page simply click on the bullet at the bottom of the page titled UWMP 2010 or click on the following link:

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Kind Regards,

Jeanette Kalabolas  
Conservation Coordinator  
Mid-Peninsula Water District  

3 Dairy Lane  
Belmont, CA 94002  
T: (650) 591-8941  
F: (650) 591-4938  
E: jeannettek@midpeninsulawater.org

7/21/2011
Attention BAWSCA, BAWSCA Member Agencies, County of San Mateo, City of Belmont, City of San Carlos & Staff,

Attached you will find a copy of Mid-Peninsula Water District's (MPWD) Draft Urban Water Management Plan. In an effort to remain in compliance with our Green Business Certification this file is being provided for your viewing pleasure via electronic format. Should you have any questions or wish to receive a hard copy version of this document I can be reached anytime M-F during normal business hours of 8AM-4:30PM at 650-591-8941. If you are not the proper point of contact within your Agency in regards to this matter, please feel free to forward this to the correct representative. Thank you very much for your time.

Sincerely,

Jeanette Kalabolas
Conservation Coordinator
Mid-Peninsula Water District

3 Dairy Lane
Belmont, CA 94002
T: (650) 591-8941
F: (650) 591-4998
E: jeanettek@midpeninsulawater.org

7/21/2011
May 23, 2011

Steven Ritchie
Assistant General Manager of Water Enterprise
SFPUC
1155 Market St, 11th Floor
San Francisco, CA 94103

RE: Draft Copy of 2010 Urban Water Management Plan for Review

Dear Mr. Ritchie:

Attached please find a copy of Mid-Peninsula Water District's Draft 2010 Urban Water Management Plan (UWMP). This plan was prepared in accordance with the Urban Water Management Planning Act, as amended and updates the Districts existing 2005 UWMP. The public review and comment period for this document begins on Monday, May 23, 2011 and ends close of business Thursday, June 23, 2011.

If you wish to comment or have any questions regarding this document I can be reached anytime M-F during normal business hours of 8AM-4:30PM at 650-591-8941 or by email at jeanettek@midpeninsulawater.org.

Thank you very much!

Sincerely,

Jeanette Kalabolas
Conservation Coordinator
May 23, 2011

Doug Fry
Chief of Belmont-San Carlos Fire Dept
600 Elm St
San Carlos, CA 94070

RE: Draft Copy of 2010 Urban Water Management Plan for Review

Dear Mr. Fry:

Attached please find a copy of Mid-Peninsula Water District's Draft 2010 Urban Water Management Plan (UWMP). This plan was prepared in accordance with the Urban Water Management Planning Act, as amended and updates the Districts existing 2005 UWMP. The public review and comment period for this document begins on Monday, May 23, 2011 and ends close of business Thursday, June 23, 2011.

If you wish to comment or have any questions regarding this document I can be reached anytime M-F during normal business hours of 8AM-4:30PM at 650-591-8941 or by email at jeanettek@midpeninsulawater.org.

Thank you very much!

Sincerely,

Jeanette Kalabolas
Conservation Coordinator
May 23, 2011

David Boesch
Manager for San Mateo County
400 County Center, 1st Floor
Redwood City, CA 94063

RE: Draft Copy of 2010 Urban Water Management Plan for Review

Dear Mr. Boesch:

Attached please find a copy of Mid-Peninsula Water District's Draft 2010 Urban Water Management Plan (UWMP). This plan was prepared in accordance with the Urban Water Management Planning Act, as amended and updates the Districts existing 2005 UWMP. The public review and comment period for this document begins on Monday, May 23, 2011 and ends close of business Thursday, June 23, 2011.

If you wish to comment or have any questions regarding this document I can be reached anytime M-F during normal business hours of 8AM-4:30PM at 650-591-8941 or by email at jeanettek@midpeninsulawater.org.

Thank you very much!

Sincerely,

Jeanette Kalabolas
Conservation Coordinator
May 23, 2011

Greg Scoles
Belmont City Manager
1 Twin Pines Lane # 340
Belmont, CA 94002

RE: Draft Copy of 2010 Urban Water Management Plan for Review

Dear Mr. Scoles:

Attached please find a copy of Mid-Peninsula Water District's Draft 2010 Urban Water Management Plan (UWMP). This plan was prepared in accordance with the Urban Water Management Planning Act, as amended and updates the Districts existing 2005 UWMP. The public review and comment period for this document begins on Monday, May 23, 2011 and ends close of business Thursday, June 23, 2011.

If you wish to comment or have any questions regarding this document I can be reached anytime M-F during normal business hours of 8AM-4:30PM at 650-591-8941 or by email at jeanettek@midpeninsulawater.org.

Thank you very much!

Sincerely,

Jeanette Kalabola
Conservation Coordinator
May 23, 2011

Art Jensen
BAWSCA
155 Bovet Rd #302
San Mateo, CA 94402

RE: Draft Copy of 2010 Urban Water Management Plan for Review

Dear Mr. Jensen:

Attached please find a copy of Mid-Peninsula Water District's Draft 2010 Urban Water Management Plan (UWMP). This plan was prepared in accordance with the Urban Water Management Planning Act, as amended and updates the Districts existing 2005 UWMP. The public review and comment period for this document begins on Monday, May 23, 2011 and ends close of business Thursday, June 23, 2011.

If you wish to comment or have any questions regarding this document I can be reached anytime M-F during normal business hours of 8AM-4:30PM at 650-591-8941 or by email at jeanettek@midpeninsulawater.org.

Thank you very much!

Sincerely,

Jeanette Kalabolas
Conservation Coordinator
July 22, 2011

California State Library
Government Publications Section
Attention: Urban Water Management Plan Coordinator
P O Box 942837
Sacramento, CA 94237-0001

RE: Copy of District’s Final 2010 UWMP

To Whom It May Concern:

In order to comply with the terms of the Department of Water Resources (DWR) filing guidelines we are submitting the enclosed print and electronic version of our final 2010 Urban Water Management Plan (UWMP) for publication.

Should you have any questions or inquiries in regards to this document I can be reached anytime M-F during normal business hours of 8AM – 4:30PM at 650-591-8941. Thank you very much.

Sincerely,

Jeanette Kalabolas
Conservation Coordinator
Adoption Resolution

RESOLUTION NO. 2011-5
ADOPTING THE URBAN WATER MANAGEMENT PLAN 2010-2015
AND SBX7-7 WATER USE TARGETS

MID-PENINSULA WATER DISTRICT

WHEREAS, the Urban Water Management Planning Act, contained in the California Water Code, Section 10610 et seq., requires that urban water suppliers serving more than 3,000 customers or providing more than 3,000 acre-feet of water annually develop an Urban Water Management Plan every five years; and

WHEREAS, the Mid-Peninsula Water District ("District") adopted an Urban Water Management Plan covering the period of 2006-2010 on December 15, 2005; and

WHEREAS, the District has prepared and made available for public inspection a draft Urban Water Management Plan 2010-2015 in accordance with applicable law; and

WHEREAS, the Urban Water Management Plan will facilitate local and regional water planning activities and support the District’s long-term water resource planning goals; and

WHEREAS, the draft Urban Water Management Plan 2010-2015 also includes a Water Shortage Contingency Plan and an assessment of past and present water usage to determine baselines and targets as required by SBX7-7, the Water Conservation Bill of 2009; and

WHEREAS, SBX7-7 requires a public hearing to solicit comments on the method of determining urban water use targets and related impacts to the local economy; and

WHEREAS, the Urban Water Management Planning Act also requires a public hearing to solicit comments on the proposed revisions and updates to the District's Urban Water Management Plan; and

WHEREAS, the Board of Directors has conducted a duly noticed public hearing on June 23, 2011, on the Urban Water Management Plan and water use targets required by SBX7-7.
NOW, THEREFORE, BE IT RESOLVED by the Board of Directors of the Mid-Peninsula Water District as follows:

1. The Mid-Peninsula Water District Urban Water Management Plan 2010-2015, which includes the SBX7-7 Implementation Plan and Water Use Targets as well as a Water Shortage Contingency Plan, is hereby approved and adopted. A copy of this Plan is on file in the office of the District and at the Public Library, and is accessible on the District’s website.

2. The District Secretary is hereby authorized and directed to file the Urban Water Management Plan 2010-2015 with the California Department of Water Resources, the California State Library, and the County of San Mateo within thirty (30) days of the adoption of this resolution.

3. The General Manager is hereby authorized and directed to implement the Urban Water Management Plan 2010-2015, including the Demand Management and Water Conservation Programs as set forth in the Plan.

REGULARLY passed and adopted this 23rd day of June, 2011.

AYES (): DIRECTORS ALTSGHER, LINVILLE, STUEBING, VELLA
NOES (): NONE
ABSENT (): ZUCCA

[Signature]
PRESIDENT

ATTEST:

[Signature]
SECRETARY OF THE BOARD