

APPENDIX G:  
WATER SUPPLY ASSESSMENT



Menlo Park Municipal Water District and California Water Service Company Bear Gulch District

# Water Supply Assessment for the City of Menlo Park Housing Element Update

GHD  
3/20/2013

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## Appendices

- A. 2009 Water Supply Agreement
- B. SFPUC Projected Water Supply Reliability

## Key Acronyms and Abbreviations

ABAG	Association of Bay Area Governments	MCL	Maximum contaminant level
ACDD	Alameda Creek Diversion Dam	MGD	Million gallons per day
Act	Urban Water Management Planning Act	MID	Modesto Irrigation District
AFY	Acre-feet per year	MOU	Memorandum of Understanding
BAWSCA	Bay Area Water Supply and Conservation Agency	MPMWD	Menlo Park Municipal Water District
BMP	Best Management Practice	PEIR	Program Environmental Impact Report
CDD	City Distribution Division	psi	pounds per square inch
CEQA	California Environmental Quality Act	RWS	Regional Water System
CII	Commercial, Industrial and Institutional	SB 610	Senate Bill 610
City	City of Menlo Park	SBx7-7	Water Conservation Act of 2009
CUWCC	California Urban Water Conservation Council	SCVWD	Santa Clara Valley Water District
DMM	Demand Management Measure	SFPUC	San Francisco Public Utilities Commission
DPH	California Department of Public Health	TID	Turlock Irrigation District
ETo	Evapo-transpiration of common turf grass	UWMP	Urban Water Management Plan
gpcd	Gallons per capita per day	WCIP	Water Conservation Implementation Plan
gpm	Gallons per minute	WQB	Water Quality Bureau
ISA	Interim Supply Allocation	WS&TD	Water Supply and Treatment Division
ISG	Individual Supply Guarantee	WSA	Water Supply Assessment
ISL	Interim Supply Limitation	WSAP	Water Shortage Allocation Plan
IWSAP	Interim Water Shortage Allocation Plan	WSIP	Water Supply Improvement Program
LEED	Leadership in Energy and Environmental Design		

## 1 Introduction

This Water Supply Assessment (WSA) has been prepared to assist the City of Menlo Park (City) and the California Water Service Company (Cal Water) in satisfying the requirements of Water Code Section 10910 et. seq. - Water Supply Planning to Support Existing & Future Uses.

The Menlo Park Municipal Water District (MPMWD) and California Water Service Company (Cal Water) are water suppliers for portions of the City of Menlo Park (City). The City is preparing an update to its Housing Element and is the lead agency under the California Environmental Quality Act (CEQA). Both CEQA and the California Water Code require a lead agency to consider water supply and demand as part of the development review process.

### 1.1 Requirements for a WSA

The requirement to prepare a WSA was established in 2002 by Senate Bill (SB) 610, which emphasizes the interrelationships between land use and water supply planning, and requires the incorporation of water supply and demand analysis at the earliest possible stage in the land use planning process. The stated intent of SB 610 is to strengthen the process by which local agencies determine the adequacy and sufficiency of current and future water supplies to meet current and future demands.

SB 610 amended the California Public Resources Code to incorporate Water Code findings within the CEQA process for certain types of projects. SB 610 added Water Code Sections 10910, 10911, 10912, 10913, and 10915 (Water Supply Planning to Support Existing and Planned Future Uses), which describe when a WSA needs to be prepared and the required elements of that WSA. The WSA is then used as an informational document to support the CEQA process. SB 610 also amended Water Code Section 10631 (the Urban Water Management Planning Act) to create a clear relationship between an agency's Urban Water Management Plan (UWMP) and subsequent WSAs and to allow the UWMP to serve as a foundational document for the analysis in the WSA.

Water Code Section 10910 et. seq. defines the "projects" that require a WSA and the lead agency's responsibilities related to the WSA. A WSA is required for:

- A proposed residential development of more than 500 dwelling units;
- A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space;
- A proposed commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space;
- A proposed hotel or motel, or both, having more than 500 rooms;
- A proposed industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area;

- A mixed-use development that includes one or more of the uses described above;
- A development that would demand an amount of water equivalent to or greater than the amount of water required by a 500-dwelling-unit project; and
- For lead agencies with fewer than 5,000 water service connections, any new development that will increase the number of water service connections in the service area by ten percent or more.

A WSA must provide:

- a description of all relevant water supply entitlements, water rights, and/or water contracts;
- a description of the available water supplies, in normal, dry and multiple dry years, and the infrastructure, either existing or proposed, to deliver the water; and
- an analysis of the demand placed on those supplies, by the project, and relevant existing and planned future uses in the area for at least a 20-year period.

The lead agency may incorporate the water suppliers' UWMP by reference, if the supplier included the proposed development's demands in the UWMP.

While water supply is clearly an important consideration in approval of a development, nothing in SB 610 prevents a lead agency from approving a proposed project even in the face of information concluding that there is not sufficient water supply for build-out of the project. However, where the description of existing water supply entitlements, water rights, and/or water contracts shows insufficient water supplies to serve the proposed project, as well as existing and planned uses over the 20-year planning horizon, additional information is required to describe how and where sufficient supplies may be obtained. Such information must include the estimated costs, financing methods, and regulatory approvals needed to obtain new supplies, as well as a projected time frame for obtaining them.

## **1.2 Summary of the Project**

This WSA considers the proposed Housing Element Update for the City (Project). The Project involves the accommodation of up to 1,318 new dwelling units within the City by 2035. The City plans to accommodate these new units by:

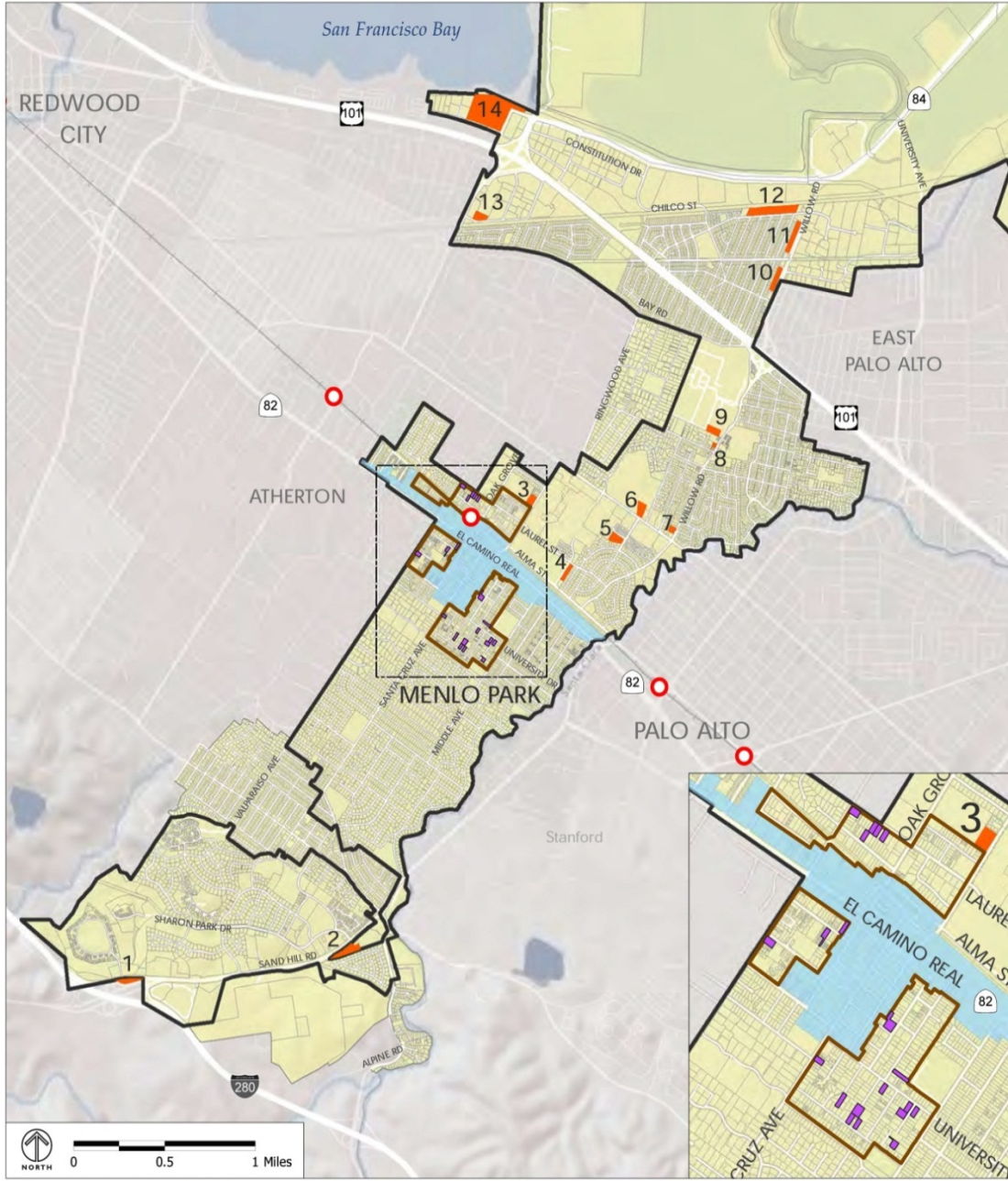
- Amending its Zoning Ordinance to accommodate up to 900 housing units on 14 sites throughout the City;
- Implementing programs to accommodate 118 infill units in the downtown area; and
- Implementing programs to allow for the development of up to 300 second units on existing single family residential parcels.

Figure 1.1 illustrates the location of the 14 sites proposed for rezoning.



Water Supply Assessment for  
City of Menlo Park Housing Element Update

WATER SUPPLY ASSESSMENT FOR THE CITY OF MENLO PARK  
HOUSING ELEMENT UPDATE



Source: City of Menlo Park; The Planning Center | DC&E, 2012; ESRI 2010; FHA 2002.

- CalTrain Stations
- Lots with Additional Housing Unit Potential
- Potential Sites to be Studied for Rezoning to Higher Density
- El Camino Real/Downtown Specific Plan
- City Limits
- Infill Areas around Downtown
- Sphere of Influence

FIGURE 1.1  
HOUSING ELEMENT LOCATION MAP

The Project includes sites within both the MPMWD service area and Cal Water service area. Two of the proposed rezoning sites, Hamilton Avenue East and Haven Avenue, are anticipated to be redeveloped by 2015. The remaining growth will be accommodated over the build out period. Table 1.1 outlines the sites under consideration, the water service area in which the sites are located, the current land use at the site, the maximum number of units proposed at each site, and the year in which completion is anticipated. Table 1.1 illustrates that more than the potential 900 units have been identified on the 10 rezoning sites located in the MPMWD service area. Because the City is proposing to limit the total number of units on the rezoned sites to 900 units, City policy will limit the total number of new units in the MPMWD service area associated with the Project.

**Table 1.1 – Proposed Housing Units Resulting from Implementation of the Proposed Housing Element Update**

Site Number	Site Name	Water Service Area	Existing Use	Number of New Units Proposed	Year of Completion
2	Hewlett Foundation	Cal Water	Vacant	98	2035
4	401-445 Burgess Dr	Cal Water	Office: Multi-Story	16	2035
5	8 Homewood Pl	Cal Water	Office: Single Story	25	2035
13	Main Post Office	Cal Water	Post Office Slated for Closure	76	2035
NA	Downtown Infill	Cal Water	Single/Multifamily Residential	118	2035
NA	West Menlo 2nd Units	Cal Water	Single Family Residential	40	2035
<b>Total Units with Identified Sites in Cal Water Service Area</b>				<b>373</b>	
NA	Additional 2nd Units	Cal Water	Single Family Residential	145	2035
<b>Total Units Proposed in Cal Water Service Area</b>				<b>518</b>	
1	I-280 and Sand Hill (Banana Site)	Menlo Park	Vacant	52	2035
3	Corpus Christi	Menlo Park	Vacant	30	2035
6	St. Patrick's Seminary	Menlo Park	Vacant	25	2035
7	125-135 Willow Rd	Menlo Park	Office: Multi-Story	10	2035
8	555 Willow	Menlo Park	Restaurant	8	2035
9	Veterans Affairs Clinic	Menlo Park	Vacant	60	2035
10	MidPen's Gateway Apts	Menlo Park	Multifamily Residential	42	2035
11	MidPen's Gateway Apts	Menlo Park	Multifamily Residential	36	2035
12	Hamilton Ave East	Menlo Park	Light Industrial and Vacant	216	2015
14	Haven Ave	Menlo Park	Light Manufacturing, Storage, and Vacant	464	2015
<b>Total Units with Identified Sites in MPMWD Service Area</b>				<b>943</b>	
NA	Additional 2nd Units	Menlo Park	Single Family Residential	115	2035
<b>Total Units Proposed in MPMWD Service Area</b>				<b>1058</b>	

The City estimates that each new unit will house 2.55 persons on average and the population increase associated with the project is 3,361 persons.

### 1.3 Scope of Analysis

This WSA describes the relationship between the future demands associated with the Project in both MPMWD's and Cal Water's service areas and the availability of water supply under different climatic conditions. This WSA has been prepared to assist the City in evaluating the impacts of the Project on the water supply.

Specifically, this WSA:

- Provides information on MPMWD's and Cal Water's water supply that is consistent with Water Code Sections 10620 et. seq. (the Urban Water Management Act) and 10910 et. seq. (Water Supply Planning to Support Existing and Planned Future Uses);
- Provides information on current water demands and projected water demands based on the City's Housing Element Update and the water demands associated with the proposed units in the Update; and
- Compares water supplies and water demands for the normal, single dry and multiple dry years.

#### 1.3.1 Urban Water Management Plans

MPMWD adopted its "2010 UWMP" on June 14, 2011. The UWMP, which is incorporated by reference, can be found at [http://www.menlopark.org/departments/pwk/MP\\_2010\\_UWMP\\_Final.pdf](http://www.menlopark.org/departments/pwk/MP_2010_UWMP_Final.pdf).

Cal Water adopted its "2010 UWMP" for the Bear Gulch district on June 24, 2011. The UWMP, which is incorporated by reference, can be found at [https://www.calwater.com/your\\_district/uwmp/bg/2010\\_Urban\\_Water\\_Management\\_Plan\\_\(BG\).pdf](https://www.calwater.com/your_district/uwmp/bg/2010_Urban_Water_Management_Plan_(BG).pdf)

Each UWMP conforms to the requirements of the Urban Water Management Planning Act and includes:

- A description of the water service area including climate, current and projected population and other demographic factors that affect water management planning;
- A description and quantification of the existing and planned water sources;
- A description of the reliability and vulnerability of the water supply to seasonal or climatic shortages in the average water year, single dry water year and multiple dry water year;
- Contingency plans including demand management and conjunctive use potential;
- A description of current and projected water demands among all user classes in 5-year increments;
- A description of all water supply projects and water supply programs that may be undertaken by MPMWD, Cal Water, their wholesale supplier the San Francisco Public Utilities Commission (SFPUC) and their regional representative, the Bay Area Water Supply and Conservation Agency (BAWSCA).

In order to comply with the requirements of the Water Conservation Act of 2009 (SBx7-7) both UWMPs include a "baseline" water use and water use targets for 2015 and 2020. These targets, which are

expressed as water use in gallons per capita per day (gpcd) will be used to validate each water suppliers' compliance with SBx7-7 requirements to reduce water use by 20 percent from the baseline by 2020.

The targets, which are discussed in detail in Chapter 4 of this WSA, effectively serve to cap future demands.

### 1.3.2 Previous Water Supply Assessments

Three previous WSAs have been prepared for the MPMWD and Cal Water Service Areas.

The Menlo Gateway WSA was prepared to support a 2009 Environmental Impact Report (EIR) for a 15.9 acre mixed used project in the MPMWD service area. This WSA predated MPMWD's 2010 UWMP and the demands documented in the Menlo Gateway WSA were included in MPMWD's 2010 UWMP.

The Water Supply Assessment for the El Camino Real/Downtown Specific Plan Project was prepared in April 2011 to support an EIR for a specific plan covering approximately 130 acres in the City's downtown core in the Cal Water service area. This WSA predated Cal Water's 2010 UWMP and the demands documented in the El Camino Real/Downtown Specific Plan were included in Cal Water's 2010 UWMP.

The Water Supply Assessment for the Menlo Park Facebook Campus Project was completed in November 2011 to support an EIR for the redevelopment of two sites, totaling 79 acres, for a corporate campus in the MPMPW service area. This WSA was developed after the completion of MPMWD's 2010 UWMP but it concluded that the planned demands were consistent with and included in the non-residential demand allowance projected in the 2010 UWMP.

## 1.4 Structure of this Report

This report is structured to facilitate the presentation of information required by the Water Code and to outline the analysis necessary to evaluate the sufficiency of water supply to meet planned growth.

**Table 1.2 – Index of SB 610 Requirements**

Required Element	Location in Documents
Description of Service Area	Section 2.1
Population Projections in 5-year Increments	Table 2.1
Description and Quantification of Water Supplies	Section 3.1 and 3.2
Description of Supply Reliability to Climate Conditions	Section 3.1 and 3.2
Description of Contingency Plans	*
Description of Demand Management Potential	Section 4.5
Projection of Water Demands in 5-year Increments	Tables 4.3, 4.5, and 5.1-5.6
Description of Projects & Programs Undertaken to Meet Demands	Section 5.2
Description of Demand Management Measures Employed	*
Determination of Supply Sufficiency under Normal, Single & Multiple Dry Years	Section 5.1
Identification of Water Supply Entitlements & Rights and water received under rights	Section 3.0
Information related to capital outlay programs for financing delivery of water supply	Section 5.2
Information on permits needed and regulatory requirements associated with water supply	Section 5.3
* Demand Management and Contingency Planning discussion incorporates the MPMWD and Cal Water 2010 Urban Water Management Plans as allowed by SB 610	

## 2 Water Service Area

The City is located in the San Francisco Bay Area, in San Mateo County, approximately halfway between San Francisco and San Jose. The city is bordered by Atherton and Redwood City to the north, East Palo Alto to the east, Woodside to the west and Palo Alto and Portola Valley to the south. The city covers approximately 18 square miles, of which approximately 12 square miles consist of San Francisco Bay and wetlands. The City reports its 2012 population as 32,513 people. There are 12,388 households in Menlo Park, with an average household size of 2.55 people.<sup>1</sup>

The City is served by two primary water purveyors, MPMWD and Cal Water. Figure 2.1 illustrates the service area of each utility.

MPMWD's service area includes approximately 40 percent of the City's population and is divided into four zones:

- The Lower Zone is located north and east of El Camino Real and serves primarily residential and small commercial land uses. The zone includes the Belle Haven, Bay Road, and Willows neighborhoods.
- The High Pressure Zone is located in northern Menlo Park between Highway 101 and the Bayfront Expressway and serves primarily industrial land uses. It includes the Bohannon Industrial Park and Tyco Properties. The high pressure zone is hydraulically disconnected from the other zones with inter-tie capabilities.
- The Upper Pressure Zone is located in western Menlo Park and is geographically and hydraulically disconnected from other zones. It serves primarily the residential Sharon Heights neighborhood, the Sharon Heights Golf Course and the SLAC National Accelerator Lab.
- The Business Park Zone is located along O'Brien Drive between Willow Road and University Avenue. It serves primarily light industrial land uses.

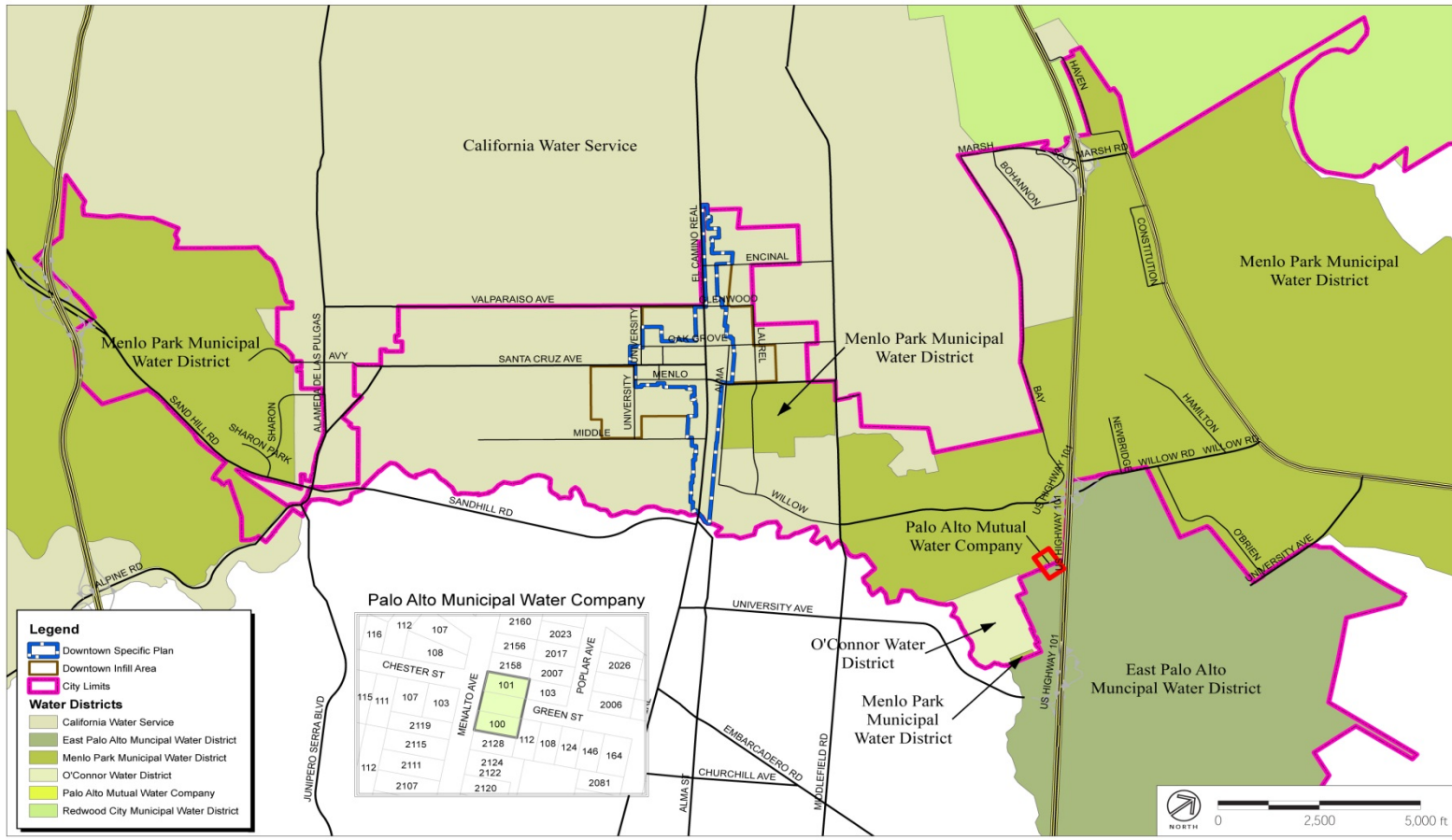
The Cal Water service area includes the remaining portion of the City of Menlo Park as well as the communities of Atherton, Portola Valley, Woodside, and adjacent unincorporated portions of San Mateo County.

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<sup>1</sup> State of California, Department of Finance, E-5 Population and Housing Estimates for Cities, Counties, and the State, January 2011 and 2012, with 2010 Benchmark. Sacramento, California, May 2012.

Water Supply Assessment for  
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WATER SUPPLY ASSESSMENT FOR THE CITY OF MENLO PARK  
HOUSING ELEMENT UPDATE



Source: City of Menlo Park, The Planning Center | DC&E, 2012

FIGURE 2.1  
WATER DISTRICT MAP

## 2.1 Population

The City is essentially built-out and future population growth is assumed to be associated with redevelopment projects within the existing urban footprint, such as those anticipated by the Project. The United States Census has reported the City's 2000 population as 30,781 persons and its 2010 population as 32,077 persons. As noted above, the City reports its 2012 population at 32,513 persons.

### 2.1.1 Comparison to 2010 UWMPs

The City's population is covered in two 2010 UWMPs:

- MPMWD's UWMP, which covers a portion of the City, and
- Cal Water's UWMP which covers its Bear Gulch District, a service area much larger than the City.

In its 2010 UWMP, MPMWD estimated its 2010 service population was 14,198 (about 40 percent of the total City population). This population figure was used to establish MPMWD's water use targets. Total projected water demand was calculated based on projections of both residential and non-residential growth. MPMWD's demand projections assumed a very modest residential growth rate of 0.42 percent annually and a strong growth in the Commercial-Industrial-Institutional (CII) sectors. The 2010 UWMP explicitly included estimates for near term, largely commercial, development projects including:

- Menlo Gateway (the Bohannon Project) for which the City has an approved WSA;
- GM Site – Sun and Facebook Project for which the City has an approved WSA;
- Business Park, which is included within the general non-residential growth analysis; and
- Hamilton Avenue East, which is included within the general residential growth allowance and which is one of the fourteen developments that are the subject of this WSA.

The remaining residential growth contemplated by the Project, was not specifically planned for in MPMWD's 2010 UWMP.

Because Cal Water's service area is much larger than the City, it is difficult to directly correlate Cal Water's population projections to the planned City growth. In its 2010 UWMP, Cal Water projected that population in its service area would grow from 57,254 persons in 2010 to 64,573 in 2035. This is an annual growth rate of 0.51 percent per year, which is higher than the growth rate used in the City's UWMP. While Cal Water did not specifically delineate planned projects within its UWMP growth projections, it did acknowledge that growth in the Menlo Park portion of its service area was expected to consist of redevelopment to multifamily uses. This is consistent with the Water Supply Assessment for the City's El Camino Real /Downtown Specific Plan, which was prepared concurrently with the Cal Water UWMP.<sup>2</sup>

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<sup>2</sup> California Water Service Company, 2010 Urban Water Management Plan Bear Gulch District, June 2011

### 2.1.2 Population Used in the this WSA

Because of the different service area limits, the UWMPs do not provide for straight forward projection of the City’s projected population. However, other City and regional planning documents do provide projections about planned growth in the City as a whole. Table 2.1 illustrates population projections for the City’s service area based on projections from the Association of Bay Area Governments (ABAG).

**Table 2.1 – City Population: Current and Projected**

Population – Current and Projected							
	2010	2015	2020	2025	2030	2035	Data Source
City Limits	31,700	33,434	34,600	35,900	37,200	38,500	Association of Bay Area Governments 2009

Note: 2015 Projections assume the completion of the proposed Hamilton & Haven Projects

These projections equate to an annual growth rate of 0.8 percent, which is higher than the projections in either MPMWD’s or Cal Water’s UWMP. This likely reflects the fact that at least some of the growth anticipated by ABAG and the Housing Element Update was not included in the UWMP projections.

## 2.2 Climate

The project area has a Mediterranean climate characterized by cool, wet winters and warm, dry summers. Rainfall averages 15.2 inches per year (measured at Palo Alto) and is generally concentrated in the wet season from late October to early May. Cal Water’s Bear Gulch UWMP notes that average rainfall of 29.5 inches is measured at Woodside, illustrating the range of rainfall across that service area. Table 2.2 presents the base climate data for the City, which is brought forward from MPMWD UWMP.

**TABLE 2.2 – CLIMATE**

	Standard average ETo*, in	Average rainfall, in	Average temperature, °F
January	1.48	3.23	48.1
February	1.88	2.88	51.3
March	3.35	2.22	53.7
April	4.74	0.99	56.6
May	5.36	0.37	60.7
June	6.25	0.08	65.0
July	6.74	0.02	66.5
August	5.99	0.05	66.6
September	4.52	0.18	65.5
October	3.43	0.71	60.6
November	1.82	1.86	53.5
December	1.48	2.69	48.1
Annual	47.04	15.28	58.0

\* ETo, or evapotranspiration, is the loss of water from evaporation and transpiration from plants.

Rain and temperature values from Palo Alto CA NOAA Station #046646 over 1951 to 2004

Evapotranspiration values are from Union City CIMIS station # 171



### 3 Water Supply

This section provides an overview of the water supplies for MPMWD and Cal Water. The City and County of San Francisco’s Regional Water System (RWS), operated by the San Francisco Public Utilities Commission (SFPUC), is the major water supply source for both the MPMWD and Cal Water’s Bear Gulch District. The RWS supplies twenty-six wholesale customers as well as the City and County of San Francisco. 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” (July 2009, hereinafter “2009 Water Supply Agreement”) governs this relationship. The most recent supply allocation document developed under the 2009 Water Supply Agreement is included in Appendix A.

Cal Water’s Bear Gulch District also sources surface water from within its watershed, while MPMWD is actively working to develop a groundwater supply that will add emergency reliability to its overall supply portfolio. Tables 3.1 and 3.2 provide a summary of existing and planned water supply sources in acre-feet per year (AFY), as outlined in the UWMPs for MPMWD and Cal Water. Each supply is discussed in detail below.

**Table 3.1 – MPMWD Existing and Planned Sources of Water in AFY**

Wholesale Sources	Contracted Volume	2015	2020	2025	2030	2035
San Francisco Public Utilities Commission*	4,993.0	4,993.0	4,993.0	4,993.0	4,993.0	4,993.0
BAWSCA Long Term Strategy	-	-	-	-	-	-
Groundwater Supplies**	-	-	-	-	-	-
<b>Totals</b>	<b>4,993.0</b>	<b>4,993.0</b>	<b>4,993.0</b>	<b>4,993.0</b>	<b>4,993.0</b>	<b>4,993.0</b>

\*From Appendix A to the Agreement for Water Supply between San Francisco PUC and Wholesale

\*\* Groundwater will be developed as an "emergency supply" in accordance with California Department of Public Health requirements which means the supply can be used for 5 consecutive days and no more than 15 days total in a year.

**Table 3.2 – Cal Water Existing and Planned Sources of Water in AFY**

Wholesale Sources	2010 Actual	2015	2020	2025	2030	2035
San Francisco Public Utilities Commission	11,824	12,579	11,362	11,715	12,088	12,483
Supplier produced groundwater	-	-	-	-	-	-
Supplier surface diversions	1,084	1,260	1,260	1,260	1,260	1,260
Other	-	-	-	-	-	-
<b>Totals</b>	<b>12,908</b>	<b>13,839</b>	<b>12,622</b>	<b>12,975</b>	<b>13,348</b>	<b>13,743</b>

Reference: Table 4.1-1, 2010 UWMP Bear Gulch District

### **3.1 San Francisco Public Utilities Commission Regional System**

The SFPUC Regional Water Supply (RWS) 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 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.

#### **3.1.1 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. The WSIP includes a total delivery reliability goal of 265 MGD of supply with no greater than 20 percent rationing in any one year of a drought.

In approving the WSIP, SFPUC's five-member governing commission (Commission) adopted a Phased WSIP Variant for water supply that was analyzed in its CEQA document. This Phased WSIP Variant established a mid-term water supply planning milestone of 2018 when the Commission is scheduled to reevaluate water demands through 2030. At the same meeting, the Commission also imposed the Interim Supply Limitation (ISL), 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 this mid-term water supply planning milestone, it also included full implementation of all proposed WSIP improvement projects to insure that the public health, seismic safety, and delivery reliability goals were achieved as soon as possible.

According to the WSIP Regional Projects Quarterly Report for the first quarter of 2012/13, all planning activities have been completed, with environmental, design and construction work at 92 percent, 96 percent, and 62 percent complete respectively.

#### **3.1.2 2009 Water Supply Agreement**

The business relationship between San Francisco and its wholesale customers is largely defined by the 2009 Water Supply Agreement, which replaced the Settlement Agreement and Master Water Sales Contract that expired in June 2009. The 2009 Water Supply Agreement addresses the rate-making methodology used by San Francisco in setting wholesale water rates for its wholesale customers, and

water supply and water shortages for the RWS. The 2009 Water Supply Agreement has a 25-year term and is supplemented by Individual Water Supply Contracts.

As described above, the approved WSIP includes an ISL, to limit sales from the San Francisco RWS watersheds to an annual average of 265 MGD through 2018. The 2009 Water Supply Agreement provides for a 184 MGD “Supply Assurance” (expressed on an annual average basis) to SFPUC’s wholesale customers and an 81 MGD “Supply Assurance” to San Francisco. These assurances are 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 RWS. Although the wholesale customers did not agree to the ISL, the 2009 Water Supply Agreement provides a framework for administering the ISL, which is discussed below.

### ***3.1.2.1 Individual Supply Guarantees***

MPMWD’s Individual Supply Guarantee (ISG), as described in the 2009 Water Supply Agreement and its contract, is 4.465 MGD (or approximately 4,993 AFY).

Cal Water has three services areas that receive water from the RWS. These are the South San Francisco District, the Mid-Peninsula District and the Bear Gulch District. Cal Water’s ISG is for all three districts and totals 35.68 MGD (39,967 AFY) in normal hydrologic years. The amount available to the Bear Gulch District in any given year varies, and depends on the availability of local supplies both in Bear Gulch and in the other Cal Water districts<sup>3</sup>. In its 2010 UMWP, Cal Water indicated that the Bear Gulch District will receive between 11.45 and 12.85 MGD or about one third of the ISG.

Although the 2009 Water Supply Agreement and accompanying Water Supply Contracts expire in 2034, the Supply Assurance (which quantifies San Francisco’s obligation to supply water to its individual wholesale customers) survives its expiration and continues indefinitely.

Each agency’s UWMP provides additional discussion on the supply contracts.

### ***3.1.2.2 Interim Supply Allocations***

The Interim Supply Allocations (ISAs) refer to each individual wholesale customer’s share of the 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 the ISGs. The ISA’s are effective only until December 31, 2018, and do not affect the Supply Assurance or the ISGs.

MPMWD’s ISA is 4.1 MGD or approximately 4,590 AFY.

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<sup>3</sup> California Water Service Company, 2010 Urban Water Management Plan Bear Gulch District, June 2011

Cal Water’s ISA is 35.68 MGD, to be shared amongst its Bear Gulch, South San Francisco, and Mid-Peninsula Districts<sup>4</sup>.

As stated in the Agreement, the wholesale customers do not concede the legality of some of the Commission’s actions, including establishment of the ISA, and expressly retain the right to challenge these provisions, if and when imposed, in a court of competent jurisdiction.

### 3.1.3 Water Shortage Allocation Plan

The 2009 Water Supply Agreement includes a Water Shortage Allocation Plan (WSAP) that addresses shortages of up to 20 percent of system-wide use. The Tier One Shortage Plan allocates water from the RWS between San Francisco and the wholesale customers, during system-wide shortages of 20 percent or less. The WSAP also anticipated a Tier Two Shortage Plan, adopted by the wholesale customers, which would allocate the available water from the RWS among the wholesale customers.

#### 3.1.3.1 Tier One Drought Allocations

The Tier One Shortage Plan replaced the prior Interim Water Shortage Allocation Plan, adopted in 2000, which also allocated water for shortages up to 20 percent. 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. Table 3.3 illustrates the Tier One Plan Allocations.

**Table 3.3 Tier 1 Drought Reductions**

Level of System Wide Reduction in Water Use Required	Share Available	
	SFPUC Share	Wholesale Customers Share
5% or less	35.5%	64.5%
6% through 10%	36.0%	64.0%
11% through 15%	37.0%	63.0%
16% through 20%	37.5%	62.5%

The Tier One Plan will expire in 2034 at the end of the term of the Agreement, unless extended by SFPUC and the wholesale customers.

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<sup>4</sup> California Water Service Company, 2010 Urban Water Management Plan Bear Gulch District, June 2011

### **3.1.3.2 Tier Two Drought Allocations**

The wholesale customers have negotiated and adopted the Tier Two Plan, the second component of the WSAP, 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:

- The ISG;
- Seasonal use of all available water supplies; and
- 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 MGD, which in turn is the weighted average of two components:

1. The wholesale customer's ISG that is fixed and stated in the Agreement;
2. The Base/Seasonal Component, which is variable and 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 Tier Two Plan 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.

### **3.1.4 Reliability of the Regional Water System**

The SFPUC has historically met demand in its service area in all year types from its watersheds, including the Tuolumne River watershed, the Alameda Creek watershed and the 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.

The 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)

The SFPUC has provided a projection of water supply reliability. The “Projected System Supply Reliability Based on Historical Hydrologic Period” (letter from P. Kehoe dated February 22, 2010), presents the projected RWS supply reliability under a range of hydrologic conditions and takes into account the impacts of climate change as SFPUC currently understands them.<sup>5</sup> This letter is included in Appendix B.

The reliability projections assume that the wholesale customers purchase 184 MGD from the RWS through 2030 and that SFPUC implements the dry-year water supply projects included in the WSIP. The projections represent the wholesale share of available supply during historical water year types per the Tier One Water Shortage Allocation Plan (WSAP). The projections do 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, which are described below.

SFPUC has translated these dry year projections into reductions to the total 184 MGD water supply available to its wholesale customers. SFPUC’s projections indicate that a 10 percent system-wide reduction in supply will occur in a single dry year and a 20 percent system-wide reduction will occur in multiple dry years. This is slightly higher than the mathematical relationship between predicted “average” and “dry years” and reflects some ability to manage dry conditions through system storage.

Table 3.4 illustrates the anticipated reductions in service reliability that could be experienced by MPMWD and Cal Water’s Bear Gulch district when wholesale supplies are reduced during single dry and multiple dry water years.

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<sup>5</sup> See MPMWD UWMP for additional discussion.

**Table 3.4 - SFPUC Regional Water System Reliability**

Water Supply Sources	Average/Normal Water Year Supply	Single-Dry Water Year	Multiple-Dry Water Years		
			Year 1	Year 2	Year 3
San Francisco PUC (to customers) (AFY)	206,121	170,946	170,946	148,429	148,429
Percent of Average/Normal Year	100%	83%	83%	72%	72%
MPMWD supply (AFY)	4,993	4,141	4,141	3,596	3,596
MPMWD Percent of Average/Normal Year	100%	83%	83%	72%	72%
Cal Water Bear Gulch (AFY)	14,069	11,523	11,523	11,535	11,064
Cal Water Bear Gulch Percent of Average/Normal Year	100%	82%	82%	82%	79%

Note: Cal Water information from Table 5.2-3 of 2010 UWMP. Reflects the portion of Cal Water's ISG allocated to Bear Gulch

**3.1.4.1 Impact of Recent SFPUC Actions on Dry Year Reliability of SFPUC Supplies**

When it adopted the project specific approvals for the Calaveras Dam Replacement Project and the Lower Crystal Springs Dam Improvements Project, which are part of the WSIP, 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 (ACDD). Together, the fishery flow schedules represent a potential decrease in available average annual water supply of 7.4 MGD or 3.9 MGD on Alameda Creek and 3.5 MGD on San Mateo Creek. This could slightly increase the SFPUC's dry-year water supply needs and may result in a need for additional reductions in demand, increases in rationing, or a supplemental supply, each of which are described below. If these supply reductions do occur, they would be temporary. Completion of the WSIP in 2018 will result in design reliability and no more than 20 percent shortfalls.

The potential shortfall related to the fishery flow schedule for the Lower Crystal Springs Dam Improvements Project could begin in 2013. The potential shortfall related to the fishery flow schedule for the Calaveras Dam Replacement Project could begin in 2015.

**3.1.4.2 Increase in Supply 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 Programmatic Environmental Impact Report (PEIR) for the WSIP 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. Basically reduced flows for fisheries could require supply rationing to increase from 20 percent to 21 percent if the maximum design drought occurs between the years 2013 and 2018. After 2018, completion of the WSIP would provide for the reliability goal of system-wide supply rationing of no more than 20 percent.

### ***3.1.4.3 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 transfers from MID or TID;
- Increase in Tuolumne River supply;
- Revising the Upper Alameda Creek Filter Gallery Project capacity<sup>6</sup>; and
- Development of a desalination project.

### ***3.1.4.4 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. The Commission is working closely with its staff to develop strategies for meeting the service goal for delivery reliability. In Resolution No. 10-0175 adopted by the Commission on October 15, 2010, staff was directed to provide information on how 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 instream flow releases required as a result of the Lower Crystal Springs Dam Improvement Project and the Calaveras Dam Replacement Project.

While, the SFPUC has a projected shortfall of available water supply to meet its Level of Service goals and contractual obligations, the SFPUC has stated that current decreased levels of demand keep this from being an immediate problem. In the near future, the SFPUC must resolve these issues. Various activities are underway by the SFPUC to resolve the shortfall problem.

SFPUC has reported regularly on future water supply and demand balances, most recently in its 2012 Water Supply Development Report (December 3, 2012). In that report, SFPUC documented that it had implemented the Harding Park Recycled Water Project and was nearing completion on its Sharp Park Recycled Water Project, bringing new nonpotable water supplies into the service area. The 2012 Water Supply Report also documents planning progress made by BAWSCA.

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<sup>6</sup> 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 6,300 AF per year. The UACFG will undergo a separate CEQA process in which all impacts associated with the project will be analyzed fully.



The 2012 Water Supply Development Report indicates that projected demands can be met with available supplies and will total less than 265 MGD in 2035. While this report supports the near-term reliability of the system, SFPUC continues to acknowledge the need to develop alternative supply strategies to make up for the instream flow reductions losses and to meet long-term demands beyond the 2018 ISL deadline.

## **3.2 Bay Area Water Supply and Conservation Agency**

BAWSCA was created on May 27, 2003, to represent the interests of the 26 agencies that purchase water on a wholesale basis from the San Francisco RWS. MPMWD and Cal Water are both members of BAWSCA, which is the only entity that has the authority to directly represent the needs of the wholesale customers that depend on the RWS. BAWSCA also has the authority to coordinate water conservation, water supply and water recycling activities for its member agencies; acquire water and make it available to other agencies on a wholesale basis; finance projects, including improvements to the RWS; and build facilities jointly with other local public agencies or on its own to carry out the agency's purposes. There are two significant BAWSCA activities that impact the Cal Water and MPMWD's water supply and demand projections; the Water Conservation Implementation Plan (WCIP) and the Long Term Reliable Water Supply Strategy.

### **3.2.1 Water Conservation Implementation Plan**

In September 2009, BAWSCA completed the WCIP ([http://bawasca.org/docs/WCIP\\_FINAL\\_Report.pdf](http://bawasca.org/docs/WCIP_FINAL_Report.pdf)). The WCIP includes 37 potential demand management activities, including 32 existing measures and five new measures that were defined and developed as part of the WCIP. It is an implementation plan for BAWSCA and its member agencies to attain the water use efficiency goals that BAWSCA's member agencies committed to in 2004 as part of the Program Environmental Impact Report (PEIR) for the WSIP. The WCIP also identifies how BAWSCA member agencies can use water conservation as a way to continue to provide reliable water supplies to their customers through 2018 given the SFPUC's 265 MGD ISL. The WCIP included development of a mathematical model for each BASWCA member agencies conservation program.

Both MPMWD and Cal Water are working with BASWSC to implement water conservation programs. Water conservation efforts support the ISL commitments and allow each supplier to meet the 2020 water use target adopted with the 2010 UWMPs.

### **3.2.2 Long Term Reliable Water Supply Strategy**

BAWSCA is developing the Long-Term Reliable Water Supply Strategy (BAWSCA 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 BAWSCA 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 BAWSCA Strategy. The original schedule for the Strategy identified January 2013 as the end of the planning phase. As a result of the significant changes in projected water demands and supply needs, which directly impact the results necessary from the Strategy, the schedule for completing the Strategy has been revised. On July 3, 2012, BAWSCA released the Strategy Phase II A document which presented the results of the work to date including the following three recommended actions for consideration by the BAWSCA Board:

- Complete the Reprogrammed Phase II A work and other identified work to complete the Strategy;
- Develop a plan for a pilot water transfer with East Bay Municipal Utility District or Santa Clara Valley Water District; and
- Update the demand and water conservation projections for BAWSCA member agencies using a common methodology.

The BAWSCA Board adopted the necessary recommendations at its meeting in September 2012. The current schedule shows completion of the Strategy by December 2014. The development and implementation of the BAWSCA Strategy will be coordinated with the BAWSCA member agencies and will be adaptively managed to ensure that the goals of the BAWSCA Strategy (increased normal and drought year reliability) are efficiently and cost-effectively being met.

### **3.3 Groundwater**

MPMWD does not currently use groundwater, but is currently evaluating several well sites in order to supplement its emergency potable and fire water supply. As discussed in its 2010 UWMP, MPMWD has conducted a series of preliminary studies and is actively pursuing the development of a well-field that could produce up to 3,000 gallons per minute (GPM) (approximately 4.32 MGD). MPMWD plans to permit the supply as an active well field for emergency use under California Department of Public Health's rules. Emergency supplies can be used for five (5) consecutive days and for less than 15 days per year. MPMWD anticipates this supply would help it address short term service interruptions, but would not provide long-term additional supply volume. MPMWD's 2010 UWMP provides additional detail on the geology of the groundwater basin and studies regarding safe yield of the basin.

Cal Water does not have any groundwater wells that supply water to the Bear Gulch District.

### **3.4 Surface Water**

Surface water supplies approximately five percent of the Bear Gulch District's water requirements. It is collected from the Bear Gulch Creek, which drains a 1,500 acre watershed owned by Cal Water, through two diversion facilities and is stored in Bear Gulch Reservoir prior to use. This surface water is treated at the outlet of the Bear Gulch Reservoir prior to entry into the distribution system.

The Bear Gulch Reservoir relies on rainfall and surface runoff as its water supply. During dry periods, the reservoir will not replenish and this is reflected in the fact that annual production from the reservoir ranges from a high of 2,812 AF (916 MG) to a low of 319 AF (103 MG) per year. Table 3.5 illustrates the reliability of the Bear Gulch water supply as documented in Cal Water’s 2010 UWMP.

**Table 3.5 – Cal Water Surface Water Supply Reliability**

Supply Reliability – Current Water Sources					
Water Supply Sources	Average/Normal Water Year Supply	Single-Dry Water Year	Multiple-Dry Water Years		
			Year 1	Year 2	Year 3
Supplier-produced surface water (AFY)	1,260	351	609	609	609
<b>Percent of Average/Normal Year</b>	<b>100%</b>	<b>28%</b>	<b>48%</b>	<b>48%</b>	<b>48%</b>
<i>Reference: Table 5.2-3, 2010 UWMP Bear Gulch District</i>					

## 4 Water Demands

This section provides an overview of the water demand baseline and water delivery targets presented within the MPMWD and Cal Water 2010 UWMPs, and the demand projections associated with the Project.

### 4.1 MPMWD's UWMP Water Demand Projection

In its 2010 UWMP, MPMWD developed demand projections taking into account anticipated growth patterns and the per capita demand reduction requirements of The Water Conservation Act of 2009 (SBx7-7). SBx7-7 became effective on January 1, 2010 and requires each urban water supplier to develop a baseline per capita water use (baseline) and 2015 and 2020 water use targets. The targets generally reflect a 10 percent and 20 percent reduction from the baseline, respectively.<sup>7</sup>

In its 2010 UWMP, MPMWD:

- Defined baseline use as 262 gallons per capita per day (gpcd), based on water use in the period from 1996 until 2005;
- Adopted a 2015 interim target of 236 gpcd; and
- Adopted a 2020 target of 210 gpcd.

In its 2010 UWMP, MPMWD acknowledged that water use in its CII class was significantly below 2005 levels, likely reflecting the effects of economic recession. The 2010 UWMP assumed that CII demands would return to 2005 levels by 2015, reflecting planned development and economic growth. Because SBx7-7 requires overall demand reductions by 2015 and 2020, MPMWD developed a water conservation strategy that balanced meeting its water use targets while acknowledging the need for economic growth.

To meet its 2015 water use targets, MPMWD calculated that it needed to achieve 0.25 MGD in demand reductions from 2005 level. MPMWD is planning on achieving a 10 percent reduction in demand for its residential customer classes and a 2 percent savings in its landscape class to meet this target.

In order to meet its 2020 water use targets, MPMWD calculated it needed to achieve 0.62 MGD in demand reductions from 2005 levels. MPMWD is planning on achieving an additional 9 percent reduction in demand for its residential customer classes, an additional 10 percent savings in its landscape class and a 9 percent savings in its CII class between 2015 and 2020, to meet the target.

MPMWD's current demand model demonstrates that MPMWD is on track to achieve 0.36 MGD in savings, from 2005 levels, due to building code changes and its existing demand management program, illustrating that MPMWD will not only meet but exceed its 2015 target. MPMWD's 2010 UWMP

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<sup>7</sup> There are four methods for calculating water use targets and the methods may yield different results. MPMWD's 2010 UWMP provides a detailed discussion of the baseline and target calculation.

indicated the need to identify three or four additional BASWCA programs to participate in between 2015 and 2020 to achieve the 2020 target. Because the BAWSCA program includes 37 demand management measures, MPMWD has a range of proven strategies to work with. The UWMP also identified the need to increase spending by approximately 1 percent per year to meet the targets. MPMWD will use BAWSCA’s regional reporting process to track demand management progress on an annual basis.

Table 4.1 illustrates MPMWD’s demand projections as outlined in its 2010 UWMP. The table illustrates that within its 2010 UWMP, MPMWD planned on very modest residential growth. It anticipated only 59 new single family accounts and 24 new multifamily accounts over the 25 year planning period.

**Table 4.1- MPMWD Demand Projections from 2010 UWMP**

Water Use Sectors	2010		2015		2020		2025		2030		2035	
	# of Accounts	Deliveries AFY	# of Accounts	Deliveries AFY	# of Accounts	Deliveries AFY	# of Accounts	Deliveries AFY	# of Accounts	Deliveries AFY	# of Accounts	Deliveries AFY
Single family	3,390	1,171.0	3,401	1,053.9	3,413	959.0	3,425	962.4	3,437	965.7	3,449	969.1
Multi-family	183	333.0	187	299.7	192	272.7	197	279.6	202	286.7	207	293.9
CII*	448	1,366.0	474	1,867.0	496	1,680.3	520	1,742.9	544	1,808.2	570	1,876.7
Landscape	121	436.0	121	428.0	126	400.0	126	400.0	126	400.0	126	400.0
Other	6	85.0	5	96.3	5	87.7		86.8		88.6		90.5
<b>Total</b>	<b>4,148</b>	<b>3,391.0</b>	<b>4,188</b>	<b>3,744.9</b>	<b>4,232</b>	<b>3,399.7</b>	<b>4,268</b>	<b>3,471.7</b>	<b>4,309</b>	<b>3,549.2</b>	<b>4,352</b>	<b>3,630.2</b>

\* Commercial, Industrial, Institutional/Governmental sectors

## 4.2 Cal Water’s UWMP Water Demand Projection

Cal Water’s 2010 UWMP also took into account the requirements of SBx7-7. In its 2010 UWMP for the Bear Gulch district, Cal Water:

- Computed a baseline use of 238 gallons per capita per day (gpcd), based on water use in the period from 2000 until 2009;<sup>8</sup>
- Adopted a 2015 interim target of 214 gpcd; and
- Adopted a 2020 target of 190 gpcd.<sup>9</sup>

In order to calculate future demands, Cal Water multiplied the SBx7-7 targets by the projected population within its Bear Gulch Service area. This resulted in gross future water demand projections. In order to estimate how these demands would be spread across the various water use sectors, Cal Water

<sup>8</sup> Table 3.3-10: California Water Service Company, 2010 Urban Water Management Plan Bear Gulch District, June 2011

<sup>9</sup> Table 3.3-12: California Water Service Company, 2010 Urban Water Management Plan Bear Gulch District, June 2011

used the ratio of individual deliveries for each class of demand (e.g. residential, CII, landscape), to the total historic deliveries. This ratio was applied to the total adjusted baseline demand resulting in the projected deliveries.

Table 4.2 illustrates Cal Water’s demand projections for 2015, 2020 and beyond as outlined in its 2010 UWMP. The table illustrates that Cal Water did plan for some increased demand within its residential sector. In particular, the demand in the multi-family residential sector is expected to increase by 200 AFY or over 87 percent over the next 20 years.

**Table 4.2 Cal Water Demand Projections from 2010 UWMP**

Water Use Sectors	2010		2015		2020		2025		2030		2035	
	# of Accounts	Deliveries AFY	# of Accounts	Deliveries AFY	# of Accounts	Deliveries AFY	# of Accounts	Deliveries AFY	# of Accounts	Deliveries AFY	# of Accounts	Deliveries AFY
Single family	16,781	10,629	16,944	11,067	17,325	10,042.0	17,714	10,267.0	18,111	10,503.0	18,518	10,748.0
Multi-family	80	232	85	339	93	330.0	101	361.0	111	395.0	121	433.0
CII	1,484	1,610	1,561	1,997	1,626	1,859	1,694	1,951	1,766	2,048	1,841	2,153
Commercial	1,367	1,309	1,430	1,599	1,482	1,471.0	1,537	1,525.0	1,593	1,581.0	1,651	1,640.0
Industrial	1	4	1	4	1	4.0	1	4.0	1	4.0	1	4.0
Institutional	116	297	130	394	143	384.0	156	422.0	172	463.0	189	509.0
Landscape	-	-	-	-	-	-	-	-	-	-	-	-
Other	24	19	26	89	25	77	24	74	24	72	23	70
<b>Sub-total *</b>	<b>18,369</b>	<b>12,490</b>	<b>18,616</b>	<b>13,492</b>	<b>19,069</b>	<b>12,308</b>	<b>19,533</b>	<b>12,653</b>	<b>20,012</b>	<b>13,018</b>	<b>20,503</b>	<b>13,404</b>
System losses **		417		347		315		323		331.0		339
<b>Total ***</b>		<b>12,907</b>		<b>13,839</b>		<b>12,623</b>		<b>12,976</b>		<b>13,349</b>		<b>13,743</b>
<i>* Reference: Tables 3.3-2 to 3.3-6, 2010 UWMP Bear Gulch District</i>												
<i>** Reference: Table 3.4-1, 2010 UWMP Bear Gulch District</i>												
<i>*** Corresponds to "BG Demand" values in Table 5.2-4, 2010 UWMP Bear Gulch District</i>												

## 4.3 Project Specific Water Demand Projections

### 4.3.1 Unit Water Demands

In its recent El Camino Real-Downtown Specific Plan EIR, the City and Cal Water considered a Water Supply Assessment for this mixed used proposal that included a number of new multifamily dwelling units, similar to the proposed Project. In this recent EIR, the City and Cal Water used a multifamily residential demand of 112 gallons per day per dwelling unit (gpd/DU) based on Santa Clara County data for multifamily units.<sup>10</sup> Because the proposed Project is very similar to the El Camino Real-Downtown Specific Plan EIR, the same multifamily demand will be applied. This demand factor is equivalent to 0.1255 AFY for each new unit.

<sup>10</sup> Water Supply Assessment for California Water Service Company Bear Gulch District and City of Menlo Park – El Camino Real/Downtown Specific Plan Project (Atkins, 2011)

### 4.3.2 Project Implementation Scenarios

As described in Section 1, the City has identified more potential housing sites than are required to implement the proposed Housing Plan Element. In order to bracket the water supply implications of the Project, two implementation scenarios have been developed.

- Scenario 1: This scenario has the maximum impact on MPMWD’s water service area. It assumes 1,015 new units in the MPMWD service area including 900 units as a result of rezoning and 115 second units. The remaining 303 units required to fully implement the proposed Housing Element would be located in the Cal Water Service Area.
- Scenario 2: This scenario has the maximum impact on Cal Water’s service area. It assumes 518 new units in the Cal Water service area including 215 as a result of rezoning, 118 in the downtown infill area, 40 second units in the West Menlo area and 145 additional second units throughout the Cal Water service area (185 second units total). The remaining 800 units required to fully implement the Housing Element would be located in the MPMWD service area.

Both scenarios assume buildout of the proposed Hamilton Avenue East and Haven sites by 2015. This would add 680 units to the MPMWD service area by 2015. The remaining units are assumed to develop at a constant rate between 2015 and 2035.

Both scenarios assume that the new demands on the Hamilton Avenue East and Haven sites are “offset” to some extent by the existing water uses that will be replaced. The Hamilton Avenue East site has an existing demand of 1.0 AFY which will help offset the project demands of 27.1 AFY.<sup>11</sup> The Haven site has an existing demand of 8.2 AFY which will help offset the total Project demands of 58.2 AFY<sup>12</sup>. Because the pattern of the remaining development proposed by the Project cannot be accurately predicted, no other “offsets” are included in the demand calculations, which results in a conservative prediction of demand.

Table 4.3 illustrates the demands associated with each scenario in each service area. Table 4.4 distributes the demand increases over the planning period from 2010 to 2035.

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<sup>11</sup> Hamilton Ave East demand is calculated as  $0.1255 \text{ AFY/unit} \times 216 \text{ units} = 27.1 \text{ AFY total}$

<sup>12</sup> Haven demand is calculated  $0.1255 \text{ AFY/unit} \times 464 \text{ units} = 58.2 \text{ AFY total}$

**Table 4.3 – Water Demands for Each Planning Scenario**

<b>Scenario 1 - Maximum Demand on MPMWD</b>						
<b>Site Name</b>	<b>Number of New Units Proposed</b>	<b>Demand per New Unit (AFY)</b>	<b>Total Demand per Proposed Development (AFY)</b>	<b>Offsets for UWMP Planning or Existing Use</b>	<b>Total New Demand for Project (AFY)</b>	
<b>MPMWD Service Area</b>						
Hamilton Ave East	216	0.1255	27.1	1.0	26.1	
Haven Ave	464	0.1255	58.2	8.2	50.0	
Remaining New Units	335	0.1255	42.0	0	42.0	
<b>Totals for MPMPWD</b>	<b>1015</b>		<b>127.4</b>	<b>9.2</b>	<b>118.2</b>	
<b>Cal Water Service Area</b>						
Total New Units	303	0.1255	38.0	0	38.0	
<b>Totals for Cal Water</b>	<b>303</b>		<b>38.0</b>	<b>0.0</b>	<b>38.0</b>	
<b>Total Demand for Scenario 1</b>					<b>156.2</b>	
<b>Scenario 2 - Maximum Demand on Cal Water</b>						
<b>MPMWD Service Area</b>						
Hamilton Ave East	216	0.1255	27.1	1.0	26.1	
Haven Ave	464	0.1255	58.2	8.2	50.0	
Remaining New Units	120	0.1255	15.1	0	15.1	
<b>Totals for MPMPWD</b>	<b>800</b>		<b>100.4</b>	<b>9.2</b>	<b>91.2</b>	
<b>Cal Water Service Area</b>						
Total New Units	518	0.1255	65.0	0	65.0	
<b>Totals for Cal Water</b>	<b>518</b>		<b>65.0</b>	<b>0.0</b>	<b>65.0</b>	
<b>Total Demand for Scenario 2</b>					<b>156.2</b>	

**Table 4.4 – Project Implementation Scenarios**

	2010		2015		2020		2025		2030		2035	
	# of New Units	Deliveries AFY	# of New Units	Deliveries AFY	# of New Units	Deliveries AFY	# of New Units	Deliveries AFY	# of New Units	Deliveries AFY	# of New Units	Deliveries AFY
<b>Scenario 1 - Maximum Demand on MPMWD</b>												
MPMWD Service Area	-	-	680	76.1	765	87.4	850	98.7	935	110.0	1,015	118.2
Cal Water Service Area	-	-	-	-	75	9.4	150	18.8	225	28.2	303	38.0
<b>Totals</b>	<b>-</b>	<b>-</b>	<b>680</b>	<b>76.1</b>	<b>840</b>	<b>96.8</b>	<b>1,000</b>	<b>117.6</b>	<b>1,160</b>	<b>138.3</b>	<b>1,318</b>	<b>156.2</b>
<b>Scenario 2 - Maximum Demand on Cal Water</b>												
MPMWD Service Area	-	-	680	76.1	710	79.3	740	82.4	770	86.2	800	91.2
Cal Water Service Area	-	-	-	-	130	16.3	260	32.6	390	48.9	518	65.0
<b>Totals</b>	<b>-</b>	<b>-</b>	<b>680</b>	<b>76.1</b>	<b>840</b>	<b>95.6</b>	<b>1,000</b>	<b>115.0</b>	<b>1,160</b>	<b>135.1</b>	<b>1,318</b>	<b>156.2</b>



## 4.4 Comparison to the 2010 UWMP

The estimated Project demands were compared against the 2010 UWMP demand forecasts for each water supplier, in order to determine whether sufficient allowance was made in the UWMPs for the additional residential water demands associated with the Housing Element Update developments.

### 4.4.1 MPMWD

In its 2010 UWMP, MPMWD projected a small increase in the residential sector including 59 new single family accounts and 24 new multifamily accounts. Multifamily accounts are not “submetered” meaning that one account can serve multiple dwelling units. However, as explained above, the 2010 UWMP also employed a strategy of achieving significant reductions in residential unit demands in order to accommodate planned nonresidential growth and still meet the adopted SBx7-7 targets. Specifically, the UWMP projected that demands in the multifamily sector would fall from 333 AFY in 2010 to 294 AFY in 2035, representing a decrease of 39 AFY or approximately 12 percent.

In order to understand if the project demands can be accommodated within the multifamily sector allowance in the UWMP, the following methodology was employed:

- The existing multifamily demand of 333 AFY per year was reduced by 10 percent between 2010 and 2015 and an additional 9 percent between 2015 and 2020 consistent with the conservation plan adopted with UWMP<sup>13</sup>;
- The 2020 demand projection for existing multifamily units was then held constant until 2035, reflecting the fact that no additional conservation measures were programed during this time;
- The projected Project demands for the period from 2015 through 2035 were then added to the reduced existing multifamily demands, creating the total projected demand for the multifamily class.

The total demand was then compared to the UWMP allocation. Table 4.5 outlines this calculation and illustrates that under both scenarios, the Project results in greater water demand in the multifamily sector than was anticipated in the UWMP.

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<sup>13</sup> MPMWD’s water conservation plan is described in Chapter 6 of its 2010 UWMP

**Table 4.5 MFR Water Demand Comparison MPMWD Service Area**

Water Use Sectors	2010		2015		2020		2025		2030		2035	
	# of Accounts	Deliveries AFY	# of Accounts	Deliveries AFY	# of Accounts	Deliveries AFY	# of Accounts	Deliveries AFY	# of Accounts	Deliveries AFY	# of Accounts	Deliveries AFY
<b>Scenario 1 - Maximum Demand on MPMWD</b>												
Total UWMP Multi-family Allocation	183	333.0	187	299.7	192	272.7	197	279.6	202	286.7	207	293.9
Existing MFR accounts	183	333.0	183	299.7	183	272.7	183	272.7	183	272.7	183	272.7
Project Water Demands		-		76.1		87.4		98.7		110.0		118.2
Total Existing & Project Demands		333.0		375.8		360.2		371.5		382.8		390.9
UWMP Allocation less Existing & Project Demands		-		(76.1)		(87.5)		(91.9)		(96.1)		(97.0)
<b>Scenario 2 - Maximum Demand on Cal Water</b>												
Total UWMP Multi-family Allocation	183	333.0	187	299.7	192	272.7	197	279.6	202	286.7	207	293.9
Existing MFR accounts	183	333.0	183	299.7	183	272.7	183	272.7	183	272.7	183	272.7
Project Water Demands		-		76.1		79.3		82.4		86.2		91.2
Total Existing & Project Demands		333.0		375.8		352.0		355.1		358.9		363.9
UWMP Allocation less Existing & Project Demands		-		(76.1)		(79.3)		(75.5)		(72.2)		(70.0)

#### 4.4.2 Cal Water

The Cal Water 2010 UWMP for the Bear Gulch district projected growth in deliveries associated with the multifamily sector from 232 AFY (0.21 MGD) in 2010 to 433 AFY (0.39 MGD) by 2035, an increase of 201 AFY. As illustrated in Table 4.4, the Project will increase demands in the Cal Water service area by 38 to 65 AFY by 2035, depending on how the Project implementation pattern develops. This can be accommodated within the planning allowance in the UMWP.

#### 4.4.3 Conclusion

Regardless of the implementation scenario, the proposed Project demands appear to be easily accommodated within the nonresidential growth allowance included in Cal Water’s 2010 UWMP. However, the proposed Project demands exceed the demands projected for the nonresidential sector in MWPM’s 2010 UWMP and will represent an increase in demands upon that system of 70 to 97 AFY.

## 5 Sufficiency Analysis & Conclusions

### 5.1 Sufficiency Analysis

SB 610 requires that the Lead Agency make findings related to supply sufficiency under the normal, single dry and multiple dry year planning scenarios.

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. Based on the hydrologic record presented in Appendix B, the SFPUC projects a 10 percent system-wide reduction in supply will occur in a single dry year and a 20 percent system-wide reduction will occur in multiple dry years. As described in Section 3, these reductions are allocated according to a two part formula. The Tier One formula allocates reductions on a straight-line basis between the SFPUC and its wholesale customers. For example, in a Single Dry Year, SFPUC would receive a 10 percent reduction and the wholesale customers would receive a 10 percent reduction. The Tier Two formula, which is administered by BAWSCA, allocates the wholesale customer's reduced supply to each customer. 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
- Residential per capita use.

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. Recent Tier Two calculations have indicated that MPWMD would receive slightly less water than a straight-line allocation would suggest (i.e., a 10 percent system wide reduction in the SFPUC supply would result in more than a 10 percent reduction for MPMWD).

#### 5.1.1 MPMWD

The demands associated with the Housing Element Update do not fall within the demand projection allowance made in MPMWD's 2010 UWMP. Therefore, this chapter presents a revised analysis taking into account the additional water demands from the Project.

Comparisons of supply and demand under normal and single dry years are included in Tables 5.1 through 5.2 below. These tables illustrate both Project scenarios and demonstrate that the additional water demands associated with the Project will have only a small effect on the difference between supply and demand in the average and single dry years. In both these cases, the supply exceeds the demand, indicating that MPMWD will not experience water shortages in those years.

**Table 5.1 - MPMWD Supply & Demand Comparison – Normal Year with Project**

**Supply and Demand Comparison – Normal Year per UWMP (AFY)**

	2015	2020	2025	2030	2035
<b>Supply Total</b>	4,993	4,993	4,993	4,993	4,993
<b>Demand Total</b>	3,745	3,400	3,472	3,549	3,630
<b>Difference (supply minus demand)</b>	1,248	1,593	1,521	1,444	1,363
Difference as % of Supply	25%	32%	30%	29%	27%
Difference as % of Demand	33%	47%	44%	41%	38%

**Supply and Demand Comparison – Normal Year per Housing Element Scenario 1**

	2015	2020	2025	2030	2035
<b>Supply Total</b>	4,993	4,993	4,993	4,993	4,993
<b>Demand Total</b>	3,821	3,487	3,564	3,645	3,727
<b>Difference (supply minus demand)</b>	1,172	1,506	1,429	1,348	1,266
Difference as % of Supply	23%	30%	29%	27%	25%
Difference as % of Demand	31%	43%	40%	37%	34%

**Supply and Demand Comparison – Normal Year per Housing Element Scenario 2**

	2015	2020	2025	2030	2035
<b>Supply Total</b>	4,993	4,993	4,993	4,993	4,993
<b>Demand Total</b>	3,821	3,479	3,547	3,621	3,700
<b>Difference (supply minus demand)</b>	1,172	1,514	1,446	1,372	1,293
Difference as % of Supply	23%	30%	29%	27%	26%
Difference as % of Demand	31%	44%	41%	38%	35%

**Table 5.2 - MPMWD Supply & Demand Comparison - Single Dry Year with Project**

<b>Supply and Demand Comparison – Single Dry Year per UWMP (AFY)</b>					
	<b>2015</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>	<b>2035</b>
<b>Supply Total</b>	4,141	4,141	4,141	4,141	4,141
<b>Demand Total</b>	3,745	3,400	3,472	3,549	3,630
<b>Difference (supply minus demand)</b>	396	741	669	592	511
Difference as % of Supply	10%	18%	16%	14%	12%
Difference as % of Demand	11%	22%	19%	17%	14%
<b>Supply and Demand Comparison – Single Dry Year per Housing Element Scenario 1</b>					
	<b>2015</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>	<b>2035</b>
<b>Supply Total</b>	4,141	4,141	4,141	4,141	4,141
<b>Demand Total</b>	3,821	3,487	3,564	3,645	3,727
<b>Difference (supply minus demand)</b>	320	654	577	496	414
Difference as % of Supply	8%	16%	14%	12%	10%
Difference as % of Demand	8%	19%	16%	14%	11%
<b>Supply and Demand Comparison – Single Dry Year per Housing Element Scenario 2</b>					
	<b>2015</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>	<b>2035</b>
<b>Supply Total</b>	4,141	4,141	4,141	4,141	4,141
<b>Demand Total</b>	3,821	3,479	3,547	3,621	3,700
<b>Difference (supply minus demand)</b>	320	662	594	520	441
Difference as % of Supply	8%	16%	14%	13%	11%
Difference as % of Demand	8%	19%	17%	14%	12%

Table 5.3 provides a summary of the multiple dry year supply and demand comparisons. The 2010 UWMP documented that water supply was adequate to meet demands in the first multiple dry year, but that in the second and third dry years MPMWD could experience a water shortage of up to 4 percent until the year 2015. After that point in time, the demand management required by SB x7-7 is generally sufficient to assure that demands do not exceed supply in the multiple dry year scenarios until after 2030. When the Project is taken into account, MPMWD could experience a water shortage of up to 6 percent (or 226 AFY) until the year 2015 in the second and third dry years, compared to the 4 percent (or 149 AFY) described in the 2010 UWMP. After that point, demand reductions are sufficient to ensure that in multiple dry years, demands do not exceed supply until after 2025. By 2035 in the multiple dry year scenarios, there may be a water shortage of up to 4 percent (or 132 AFY).

The demands applied in single and multiple dry years reflect the impacts of the MPMWD’s conservation program, but not additional demand reduction that could be achieved by implementation of MPMWD’s Drought Contingency Plan. This plan, which is described in the 2010 UWMP, outlines measures that will allow MPMWD to reduce demands by up to 50% in the case of drought or emergency. This plan will be implemented, if necessary, to manage the predicted shortages in multiple dry years.

**Table 5.3- MPMWD Supply & Demand Comparisons - Multiple Dry Years with Project**

<b>Supply &amp; Demand Comparison – Multiple Dry Year per UW MP (AFY)</b>						
		<b>2015</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>	<b>2035</b>
<b>M Multiple Dry Year First Year Supply</b>	<b>Supply Total</b>	4,141	4,141	4,141	4,141	4,141
	<b>Demand Total</b>	3,745	3,400	3,472	3,549	3,630
	<b>Difference (supply minus demand)</b>	396	741	669	592	511
	Difference as % of Supply	10%	18%	16%	14%	12%
	Difference as % of Demand	11%	22%	19%	17%	14%
<b>M Multiple Dry Year Second Year Supply</b>	<b>Supply Total</b>	3,596	3,596	3,596	3,596	3,596
	<b>Demand Total</b>	3,745	3,400	3,472	3,549	3,630
	<b>Difference (supply minus demand)</b>	(149)	196	124	46	(35)
	Difference as % of Supply	-4%	5%	3%	1%	-1%
	Difference as % of Demand	-4%	6%	4%	1%	-1%
<b>M Multiple Dry Year Third Year Supply</b>	<b>Supply Total</b>	3,595.5	3,595.5	3,595.5	3,595.5	3,595.5
	<b>Demand Total</b>	3,744.9	3,399.7	3,471.7	3,549.2	3,630.2
	<b>Difference (supply minus demand)</b>	(149.4)	195.8	123.8	46.3	(34.7)
	Difference as % of Supply	-4%	5%	3%	1%	-1%
	Difference as % of Demand	-4%	6%	4%	1%	-1%
<b>Supply &amp; Demand Comparison – Multiple Dry Year per Housing Element Scenario 1</b>						
		<b>2015</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>	<b>2035</b>
<b>M Multiple Dry Year First Year Supply</b>	<b>Supply Total</b>	4,141	4,141	4,141	4,141	4,141
	<b>Demand Total</b>	3,821	3,487	3,564	3,645	3,727
	<b>Difference (supply minus demand)</b>	320	654	577	496	414
	Difference as % of Supply	8%	16%	14%	12%	10%
	Difference as % of Demand	8%	19%	16%	14%	11%
<b>M Multiple Dry Year Second Year Supply</b>	<b>Supply Total</b>	3,596	3,596	3,596	3,596	3,596
	<b>Demand Total</b>	3,821	3,487	3,564	3,645	3,727
	<b>Difference (supply minus demand)</b>	(226)	108	32	(50)	(132)
	Difference as % of Supply	-6%	3%	1%	-1%	-4%
	Difference as % of Demand	-6%	3%	1%	-1%	-4%
<b>M Multiple Dry Year Third Year Supply</b>	<b>Supply Total</b>	3,595.5	3,595.5	3,595.5	3,595.5	3,595.5
	<b>Demand Total</b>	3,821	3,487	3,564	3,645	3,727
	<b>Difference (supply minus demand)</b>	(225.5)	108.3	31.9	(49.7)	(131.7)
	Difference as % of Supply	-6%	3%	1%	-1%	-4%
	Difference as % of Demand	-6%	3%	1%	-1%	-4%
<b>Supply &amp; Demand Comparison – Multiple Dry Year per Housing Element Scenario 2</b>						
		<b>2015</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>	<b>2035</b>
<b>M Multiple Dry Year First Year Supply</b>	<b>Supply Total</b>	4,141	4,141	4,141	4,141	4,141
	<b>Demand Total</b>	3,821	3,479	3,547	3,621	3,700
	<b>Difference (supply minus demand)</b>	320	662	594	520	441
	Difference as % of Supply	8%	16%	14%	13%	11%
	Difference as % of Demand	8%	19%	17%	14%	12%
<b>M Multiple Dry Year Second Year Supply</b>	<b>Supply Total</b>	3,596	3,596	3,596	3,596	3,596
	<b>Demand Total</b>	3,821	3,479	3,547	3,621	3,700
	<b>Difference (supply minus demand)</b>	(226)	116	48	(26)	(105)
	Difference as % of Supply	-6%	3%	1%	-1%	-3%
	Difference as % of Demand	-6%	3%	1%	-1%	-3%
<b>M Multiple Dry Year Third Year Supply</b>	<b>Supply Total</b>	3,595.5	3,595.5	3,595.5	3,595.5	3,595.5
	<b>Demand Total</b>	3,821.0	3,479.0	3,547.2	3,621.4	3,700.2
	<b>Difference (supply minus demand)</b>	(225.5)	116.5	48.3	(25.9)	(104.7)
	Difference as % of Supply	-6%	3%	1%	-1%	-3%
	Difference as % of Demand	-6%	3%	1%	-1%	-3%

### 5.1.2 Cal Water

The growth anticipated by the Housing Element Update within Cal Water’s Bear Gulch service area fall within the demand projection allowance made in the 2010 UWMP, and therefore this chapter summarizes the analysis developed for the 2010 UWMP.

Comparisons of supply and demand under normal, single dry and multiple dry years are included in Table 5.4 through 5.6 which are consistent with Tables 5.2-4 through 5.2-6 on pages 71-73 of Cal Water’s 2010 UWMP for the Bear Gulch service area. The comparisons in the 2010 UWMP include Cal Water’s three Peninsula Districts (Bear Gulch, Mid-Peninsula and South San Francisco) in aggregate; the supply-demand comparison is not exclusive to Cal Water’s Bear Gulch area.

Cal Water’s normal year supply and demand comparison shows that there is sufficient water available to meet demands through to 2030 with very modest shortages predicted in 2035.

**Table 5.4 – Cal Water Supply & Demand Comparisons - Normal Year with Project**

<b>Supply and Demand Comparison – Normal Year (AFY)</b>					
	<b>2015</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>	<b>2035</b>
<b>Supply Total</b>	42,762	42,762	42,762	42,762	42,762
<b>Demand Total</b>	42,047	39,900	41,046	42,225	43,530
<b>Difference (supply minus demand)</b>	715	2,862	1,716	537	(768)
Difference as % of Supply	2%	7%	4%	1%	-2%
Difference as % of Demand	2%	7%	4%	1%	-2%

The singly dry year supply and demand comparison shows that there will be a water shortage in a single dry year. In the 2010 UWMP, the water demands were assumed to increase during a single-dry year due to maintenance of landscape and other high water uses that would normally be supplied by precipitation. Based on a 10 percent system-wide cutback in SFPUC supplies in a single-dry year, there would be a shortfall of 3,200 AF in 2015 and 3,100 AF in 2035. The 2010 UWMP notes however that historically SFPUC supplies have not been reduced this dramatically in the first year of a drought, and that under normal circumstances SFPUC has adequate carryover storage in the RWS to provide an increased level of service in single dry years. In addition, like MPMWD, Cal Water has developed a Water Shortage Contingency Plan, which allows it to implement measures that reduce demand up to 50%. This plan could be implemented to manage dry shortages as necessary.

**Table 5.5 – Cal Water Supply & Demand Comparisons - Single Dry Year with Project**

	2015	2020	2025	2030	2035
<b>Supply Total</b>	35,059	35,059	35,059	35,059	35,059
<b>Demand Total</b>	41,746	39,540	40,675	41,817	43,134
<b>Difference (supply minus demand)</b>	(6,687)	(4,481)	(5,616)	(6,758)	(8,075)
Difference as % of Supply	-19%	-13%	-16%	-19%	-23%
Difference as % of Demand	-16%	-11%	-14%	-16%	-19%

As shown in Table 5.6, there is a supply shortfall of about 1,900 AF as early as 2015 if a 10 percent system-wide reduction is required. If the cutback reaches 20 percent, Cal Water could see a shortfall of 7,900 AF beginning in 2016, and up to 9,700 AF in 2036. Cal Water indicates that it will manage these through a combination of customer demand reductions resulting from the implementation of the Water Shortage Contingency Plan, and the development of alternative supplies. Specifically, Cal Water’s UWMP notes that the RWS often has “carry over” water that can be made available to its wholesale customers to buffer potential dry year cutbacks.

**Table 5.6 – Cal Water Supply & Demand Comparison- Multiple Dry Years with Project**

		2015	2020	2025	2030	2035
<b>Multiple Dry Year First Year Supply</b>	<b>Supply Total</b>	35,316	35,316	35,316	35,316	35,316
	<b>Demand Total</b>	37,212	35,362	36,379	37,451	38,582
	<b>Difference (supply minus demand)</b>	(1,896)	(46)	(1,063)	(2,135)	(3,266)
	Difference as % of Supply	-5%	0%	-3%	-6%	-9%
	Difference as % of Demand	-5%	0%	-3%	-6%	-8%
<b>Multiple Dry Year Second Year Supply</b>	<b>Supply Total</b>	28,522	28,522	28,522	28,522	28,522
	<b>Demand Total</b>	36,439	35,077	36,091	37,160	38,287
	<b>Difference (supply minus demand)</b>	(7,917)	(6,555)	(7,569)	(8,638)	(9,765)
	Difference as % of Supply	-28%	-23%	-27%	-30%	-34%
	Difference as % of Demand	-22%	-19%	-21%	-23%	-26%
<b>Multiple Dry Year Third Year Supply</b>	<b>Supply Total</b>	28,522	28,522	28,522	28,522	28,522
	<b>Demand Total</b>	35,404	34,548	35,552	36,610	37,762
	<b>Difference (supply minus demand)</b>	(6,882)	(6,026)	(7,030)	(8,088)	(9,240)
	Difference as % of Supply	-24%	-21%	-25%	-28%	-32%
	Difference as % of Demand	-19%	-17%	-20%	-22%	-24%



## 5.2 Capital Outlay and Permits Necessary to Accomplish the Program

Future water projects that will likely increase (improve) reliability of supplies for the City and Cal Water include:

- SFPUC's WSIP projects which are approved, funded, designed and scheduled to be complete by 2030;
- Projects that may develop through BAWSCA's Strategy which are scheduled to be identified and completed by 2018; and
- MPMWD's local groundwater development project which is scheduled to be completed by 2020.

While BAWSCA's Strategy and MPMWD's local groundwater program could result in additional water supply in the future, this WSA does not assume any water supply from these sources.

## 5.3 Regulatory Requirements for Delivery of Water Supply

MPMWD and Cal Water comply with all current regulatory standards. The suppliers will continue to monitor their systems in accordance with its permit from the California Department of Public Health.

## 5.4 Conclusions

### 5.4.1 MPMWD

MPMWD approved its 2010 UWMP on June 14, 2011. This document projected water supplies and demands from 2010 through 2035 and compared them under a range of hydrologic conditions.

In its 2010 UWMP, MPMWD projected that demands in the multifamily sector would decrease from 333 AFY in 2010 to 294 AFY in 2035, a decrease of 39 AFY. Demand in the single family sector was projected to decrease from 1,171 AFY in 2010 to 969 AFY in 2035, a decrease of 202 AFY. In total the Housing Element Update will add between 70 to 97 AFY in new multifamily residential demand, above and beyond what was projected in the 2010 UWMP. The actual amount of the increase will depend on the buildout pattern of the Project.

MPMWD's water supply is adequate to meet these new demands in normal and single dry years through the year 2035.

In its 2010 UWMP, MPMWD forecast that its water supply was adequate to meet demands in the first year of a multiple dry year period, but in the second and third dry years it projected a water shortage of up to 4 percent (or 149 AFY) until the year 2015. After that point in time, the demand management required by SB x7-7 would be generally sufficient to assure that demands do not exceed supply in the multiple dry year scenarios until after 2030, when there will be a shortfall of 1 percent (or 35 AFY).

Taking into account the additional residential demands forecast in this WSA, water supply will be adequate to meet demands in the first multiple dry year, but in the second and third dry years MPMWD could experience a water shortage of up to 6 percent (226 AFY) until the year 2015. After that point in time, the demand management required by SB x7-7 would be generally sufficient to assure that

demands do not exceed supply in the multiple dry year scenarios until after 2030, when there will be a shortfall of up to 4 percent (132 AFY).

These forecasts assume that “normal” demand patterns occur. The 2010 UWMP documented that MPMWD has a Water Shortage Contingency Plan (Municipal Code Chapter 7.34 Water Rationing) in place that allows it to achieve demand reductions of up to 50 percent. Therefore, the 4 to 6 percent reductions required to manage supply restrictions in multiple year droughts can be achieved by MPMWD.

Review of MPMWD’s historic water delivery records indicate that in dry years, demand is depressed somewhat below “normal” levels, likely reflecting the impact of voluntary and at times, mandatory, water use reduction programs. Local groundwater (See section 3.3) could also help buffer against these anticipated shortages.

#### **5.4.2 Cal Water**

California Water Service Company approved its 2010 UWMP for the Bear Gulch District on June 24, 2011. This document projected water supplies and demands from 2010 through 2035 and compared them under a range of hydrologic conditions.

In its 2010 UWMP, Cal Water projected that demands in the multifamily sector would increase from 232 AFY in 2010 to 433 AFY in 2035, an increase of 201 AFY. Demand in the single family sector was projected to increase from 10,629 AFY in 2010 to 10,748 AFY in 2035, an increase of 119 AFY. The Housing Element Update projects will add between 38 and 65 AFY of demand to the Cal Water Service Area, which is well within the projected growth as described in the 2010 UWMP, taking into account per capita demand reductions.

Cal Water’s normal year supply and demand comparison shows that there is sufficient water available to meet demands through to 2035. As per the 2010 UWMP, shortages are projected in the single and multiple dry years.

Cal Water’s 2010 UWMP notes that under normal circumstances SFPUC has adequate carryover storage in the RWS to provide an increased level of service in single dry years. Like MPMWD, Cal Water has codified its Water Shortage Contingency Plan. In Cal Water’s case, the Plan is codified and updated within its UWMP. Because it is a private water company, Cal Water implements its Water Shortage Contingency Plan through a California Public Utilities Commission (CPUC) process. Cal Water can make requests for “voluntary” water restrictions, which yield 10 percent demand reductions, directly to its customers in accordance with CPUC Rule 14.1. Like MPMWD, an analysis of Cal Water’s historic data documents that these measures have proved sufficient to offset the system wide cutbacks during a drought period.

For mandatory restrictions, Cal Water will file a Tier 2 advice letter with the CPUC that describes the need for mandatory allocations as well as its methodology and plan for implementation. A public hearing is required during the 30 days following this filing and all customers in the affected district will be notified of the hearing. If, after the 30 day period, it is determined that mandatory allocations are necessary, Cal Water will file a Tier 1 advice letter with the CPUC, which would make mandatory

allocations effective 5 days following the filing. Cal Water has the legal authority to implement mandatory allocations only after requesting from the CPUC that Tariff Rule 14.1, Mandatory Conservation Plan, be added to existing tariffs. *Section A. Conservation – Nonessential or Unauthorized Water Use* of Tariff Rule 14.1 identifies specific water use prohibitions.

## **Appendix A**

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**WATER SUPPLY AGREEMENT**

**between**

**THE CITY AND COUNTY OF SAN FRANCISCO**

**and**

**WHOLESALE CUSTOMERS**

**in**

**ALAMEDA COUNTY, SAN MATEO COUNTY AND  
SANTA CLARA COUNTY**

**JULY 2009**

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# **WHOLESALE WATER SUPPLY AGREEMENT**

## **Introductory Statement**

Both San Francisco, as the Regional Water System owner and operator, and its Wholesale Customers share a commitment to the Regional Water System providing a reliable supply of high quality water at a fair price, and achieving these goals in an environmentally sustainable manner.

## **Article 1. Parties, Effective Date, and Defined Terms**

### **1.01 Definitions**

The capitalized terms used in this Agreement shall have the meanings set forth in Attachment A.

### **1.02 Parties**

The parties to this Agreement are the City and County of San Francisco and such of the following entities (all of which purchase water from San Francisco) as have executed this Agreement:

Alameda County Water District  
California Water Service Company  
City of Brisbane  
City of Burlingame  
City of Daly City  
City of East Palo Alto  
City of Hayward  
City of Menlo Park  
City of Millbrae  
City of Milpitas  
City of Mountain View  
City of Palo Alto  
City of Redwood City

City of San Bruno  
City of San José  
City of Santa Clara  
City of Sunnyvale  
Coastside County Water District  
Estero Municipal Improvement District  
Guadalupe Valley Municipal Improvement District  
Mid-Peninsula Water District  
North Coast County Water District  
Purissima Hills Water District  
Skyline County Water District  
Stanford University  
Town of Hillsborough  
Westborough Water District

The entities listed above which have executed this Agreement shall be collectively referred to as the “Wholesale Customers.”

**1.03 Effective Date**

A. Except as provided in subsection C, this Agreement shall become effective only when it has been approved by San Francisco and by each of the entities listed in Section 1.02 and when San Francisco and each of those entities (except for the City of Hayward) have entered into an Individual Water Sales Contract as provided in Section 9.01.

B. If San Francisco and all of the entities listed in Section 1.02 approve this Agreement and (except for the City of Hayward) an Individual Water Sales Contract on or before July 1, 2009, the effective date shall be July 1, 2009. If San Francisco and all of the entities listed in Section 1.02 approve this Agreement and (except for the City of Hayward) an Individual Water Sales Contract after July 1, 2009 but on or before September 1, 2009, the effective date shall be the date on which the last entity listed in Section 1.02 approves this Agreement and, if required, an Individual Water Sales Contract.

C. If by September 1, 2009 this Agreement has been approved by fewer than all of the entities listed in Section 1.02 or fewer than all of such entities (other than the City of Hayward) have entered into an Individual Water Sales Contract, but it has been approved by entities representing at least 75% in number and 75% of the water purchased from SFPUC by

all listed agencies during FY 2007-08 (i.e., 173.39 MGD), then San Francisco shall have the option to waive the requirement in subsection A that all listed agencies have approved this Agreement and an Individual Water Sales Contract as a condition precedent to this Agreement and any Individual Water Sales Contract becoming effective. San Francisco shall have 60 days from September 1, 2009 (i.e., until October 31, 2009) within which to decide whether or not to waive the condition. If San Francisco decides to waive the condition, those listed agencies that have approved this Agreement and Individual Water Sales Contract before October 31, 2009 will be bound thereby and this Agreement and Individual Water Sales Contracts will become effective as to them, as of the date of San Francisco's waiver. For purposes of determining whether listed agencies that have approved this Agreement represent at least 75% of the water purchased during FY 2007-08, the quantity of water attributable to each listed entity shall be as set forth on Attachment B.

D. The provisions of Article 9 that apply to fewer than all Wholesale Customers (i.e., Sections 9.02 - 9.07) shall not become effective unless San Francisco and the entity to which the section applies have each approved (1) this Agreement, and (2) the underlying Individual Water Sales Contract, unless otherwise provided in Article 9. This provision does not affect the continued enforceability of provisions in those sections that derive from independently enforceable judgments, orders or agreements.

## **Article 2. Term; Amendments During Term**

### **2.01 Term**

The term ("Term") of this Agreement shall be twenty five (25) years. The Term shall begin on July 1, 2009, regardless of whether the Effective Date is before or after that date, and shall end on June 30, 2034. Except as provided in Article 9, the term of all Individual Water Sales Contracts shall also begin on July 1, 2009 and end on June 30, 2034.

### **2.02 Extension and Renewal of Term**

A. In December 2031, the SFPUC may provide written notice to the Wholesale Customers that it is willing to extend the Term of this Agreement. Between January 1, 2032 and June 30, 2032, any Wholesale Customer may accept the SFPUC's offer to extend the Term by providing a written notice of extension to the SFPUC. If such notices of extension are received from Wholesale Customers representing at least two-thirds in number as of June 30, 2032 and seventy five percent (75%) of the quantity of water delivered by the SFPUC to all Wholesale Customers during fiscal year 2030-31, the Term shall be extended for another five (5) years ("First Extension Term"), through June 30, 2039. No party to this Agreement which does not wish to remain a party during the Extension Term shall be compelled to do so by the actions of other parties under this section.

B. In December 2036, the SFPUC may provide written notice to the Wholesale Customers that it is willing to extend the Term of this Agreement. Between January 1, 2037 and June 30, 2037, any Wholesale Customer may accept the SFPUC's offer to extend the Term by providing a written notice of extension to the SFPUC. If such notices of extension are received from Wholesale Customers representing at least two-thirds in number as of June 30, 2037 and seventy five percent (75%) of the quantity of water delivered by the SFPUC to all Wholesale Customers during fiscal year 2035-36, the Term shall be extended for another five (5) years ("Second Extension Term"), through June 30, 2044. No party to this Agreement which does not wish to remain a party during the Extension Term shall be compelled to do so by the actions of other parties under this section.

C. After the expiration of the Term, and, if applicable, the Extension Terms, this Agreement may be renewed by mutual consent of the parties, subject to any modifications thereof which may be determined at that time. If fewer than all of the parties desire to renew this Agreement beyond its Term, with or without modifications, the SFPUC and the Wholesale

Customers who wish to extend the Agreement shall be free to do so, provided that no party to this Agreement which does not wish to become a party to such a renewed Agreement shall be compelled to do so by the actions of other parties under this section.

## **2.03 Amendments**

### **A. Amendments to Agreement; General**

1. This Agreement may be amended with the written consent of all parties.
2. This Agreement may also be amended with the written consent of San Francisco and of Wholesale Customers representing at least two-thirds in number (i.e., 18 as of July 1, 2009) and seventy five percent (75%) of the quantity of water delivered by San Francisco to all Wholesale Customers during the fiscal year immediately preceding the amendment.
3. No amendment which adversely affects a Fundamental Right of a Wholesale Customer may be made without the written consent of that customer. Amendments to Article 5 which merely affect the allocation of costs between City Retail customers on the one hand and Wholesale Customers collectively on the other, and amendments to Articles 6 and 7 which merely alter budgetary, accounting and auditing procedures do not affect Fundamental Rights and may be made with the consent of parties meeting the requirements of Section 2.03.A.2.
4. When an amendment has been approved by San Francisco and the number of Wholesale Customers required in Section 2.03.A.2, San Francisco shall notify each of the Wholesale Customers in writing of the amendment's adoption. Notwithstanding any provision of law or this Agreement, any Wholesale Customer that claims that the amendment violates its Fundamental Rights under Section 2.03.A.3, shall have 30 days from the date San Francisco delivers the notice of its adoption in which to challenge the amendment's validity through a judicial action. If no such action is filed within 30 days, the amendment shall be finally and conclusively deemed to have been adopted in compliance with this section.

### **B. Amendments to Article 9**

1. Notwithstanding the provisions of Sections 2.03.A.2 and 2.03.A.3, any provision of Article 9 which applies only to an individual Wholesale Customer may be amended with the written concurrence of San Francisco and the Wholesale Customer to which it applies;

provided that the amendment will not, directly or indirectly, adversely affect the Fundamental Rights of the other Wholesale Customers.

2. Before making any such amendment effective, San Francisco shall give notice, with a copy of the text of the proposed amendment, to all other Wholesale Customers. The Wholesale Customers shall have 30 days in which to object to the amendment on the ground that it is not permissible under this subsection. If no such objection is received by San Francisco, the proposed amendment shall become effective. If one or more Wholesale Customers object to the amendment, San Francisco, the individual Wholesale Customer with which San Francisco intends to effect the amendment, and the Wholesale Customer(s) which lodged the objection shall meet to discuss the matter.

3. If the dispute cannot be resolved and San Francisco and the Wholesale Customer involved elect to proceed with the amendment, either San Francisco or the Wholesale Customer shall give written notice of such election to each Wholesale Customer that has objected. Any Wholesale Customer that has objected to such amendment shall have 30 days from receipt of this notice within which to commence an action challenging the validity of such amendment, and such amendment shall be deemed effective as of the end of this 30-day period unless restrained by order of court.

**C. Amendments to Attachments.** The following attachments may be amended with the written concurrence of San Francisco and BAWSCA on behalf of the Wholesale Customers:

<u>Attachment</u>	<u>Name</u>
G	January 2006 Water Quality Notification and Communications Plan
J	Water Use Measurement and Tabulation
L-1	Identification of WSIP Projects as Regional/Retail
N-1	Balancing Account/Rate Setting Calculation Table
N-2	Wholesale Revenue Requirement Schedules
N-3	Schedule of Projected Water Sales, Wholesale Revenue Requirement and Wholesale Rates
P	Management Representation Letter



Amendments to these attachments shall be approved on behalf of San Francisco by the Commission and on behalf of BAWSCA by its Board of Directors, unless the Commission by resolution delegates such authority to the General Manager of the SFPUC or the Board of Directors by resolution delegates such authority to the General Manager/CEO of BAWSCA.

**D. Amendments to Individual Water Sales Contracts.** Individual Water Sales Contracts described in Section 9.01 may be amended with the written concurrence of San Francisco and the Wholesale Customer which is a party to that Individual Water Sales Contract; provided that the amendment is not inconsistent with this Agreement or in derogation of the Fundamental Rights of other Wholesale Customers under this Agreement.

## **Article 3. Water Supply**

### **3.01 Supply Assurance**

A. San Francisco agrees to deliver water to the Wholesale Customers up to the amount of the Supply Assurance. The Supply Assurance is for the benefit of the entities listed in Section 1.02, irrespective of whether or not they have executed this Agreement. Water delivered by San Francisco to Retail Customers shall not be included in the Supply Assurance. Until December 31, 2018, the foregoing commitment is subject to Article 4.

B. Both the Supply Assurance and the Individual Supply Guarantees identified in Section 3.02 are expressed in terms of daily deliveries on an annual average basis and do not themselves constitute a guarantee by San Francisco to meet peak daily or hourly demands of the Wholesale Customers, irrespective of what those peak demands may be. The parties acknowledge, however, that the Regional Water System has been designed and constructed to meet peak daily and hourly demands and that its capacity to do so has not yet been reached. San Francisco agrees to operate the Regional Water System to meet peak requirements of the Wholesale Customers to the extent possible without adversely affecting its ability to meet peak demands of Retail Customers. This Agreement shall not preclude San Francisco from undertaking to meet specific peak demand requirements of individual Wholesale Customers in their Individual Water Sales Contracts.

C. The Supply Assurance is perpetual and shall survive the expiration or earlier termination of this Agreement. Similarly, the Individual Supply Guarantees identified in Section 3.02 and/or the Individual Water Sales Contracts are perpetual and shall survive the expiration or earlier termination of this Agreement or the Individual Water Sales Contracts.

D. Notwithstanding the Supply Assurance established by this section, the Individual Supply Guarantees identified in Section 3.02 and the Individual Water Sales Contracts, the amount of water made available by San Francisco to the Wholesale Customers is subject to reduction, to the extent and for the period made necessary by reason of water shortage, Drought, Emergencies, or by malfunctioning or rehabilitation of facilities in the Regional Water System. Any such reduction will be implemented in accordance with Section 3.11. The amount of water made available to the Wholesale Customers may not be reduced, however, merely because the water recycling and groundwater projects which the WSIP envisions to be constructed within San Francisco, or the conservation programs intended to reduce water use

by Retail Customers that are included in the WSIP, do not generate the yield or savings (10 MGD combined) anticipated by San Francisco.

### **3.02 Allocation of Supply Assurance**

A. Pursuant to Section 7.02 of the 1984 Agreement, a portion of the Supply Assurance has been allocated among 24 of the 27 Wholesale Customers. These Individual Supply Guarantees are also expressed in terms of annual average metered deliveries of millions of gallons per day and are listed in Attachment C.

B. Three Wholesale Customers do not have Individual Supply Guarantees. The cities of San Jose and Santa Clara do not have an Individual Supply Guarantees because San Francisco has provided water to them on a temporary and interruptible basis as described in Sections 4.05 and 9.06. The City of Hayward does not have an Individual Supply Guarantee because of the terms of the 1962 contract between it and San Francisco, as further described in Section 9.03.

C. If the total amount of water delivered by San Francisco to Hayward and to the Wholesale Customers that are listed on Attachment C exceeds 184 MGD over a period of three consecutive fiscal years (i.e., July 1 through June 30), then the Individual Supply Guarantees of those Wholesale Customers listed on Attachment C shall be reduced pro rata so that their combined entitlement and the sustained use by Hayward does not exceed 184 MGD. The procedure for calculating the pro rata reduction in Individual Supply Guarantees is set out in Attachment D.

1. The provisions of this subsection C are not in derogation of the reservation of claims to water in excess of the Supply Assurance which are contained in Section 8.07. Nor do they constitute an acknowledgement by Wholesale Customers other than Hayward that San Francisco is obligated or entitled to reduce their Individual Supply Guarantees in the circumstances described herein. The provisions of this subsection C shall, however, be operative unless and until a court determines that its provisions violate rights of the Wholesale Customers derived independently of this Agreement.

2. The foregoing paragraph is not intended to and shall not constitute a contractual commitment on the part of San Francisco to furnish more water than the Supply Assurance to the Wholesale Customers or a concession by San Francisco that the provisions of this subsection violate any rights of the Wholesale Customers.

D. Notwithstanding the reservation of claims contained in Sections 3.02.C and 8.07, it shall be the responsibility of each Wholesale Customer to limit its purchases of water from San Francisco so as to remain within its Individual Supply Guarantee. San Francisco shall not be liable to any Wholesale Customer or be obligated to supply more water to any Wholesale Customer individually or to the Wholesale Customers collectively than the amount to which it or they are otherwise entitled under this Agreement due to the use by any Wholesale Customer of more water than the amount to which it is entitled under this Agreement.

E. San Francisco shall install such new connections between the Regional Water System and the distribution system of any Wholesale Customer that are necessary to deliver the quantities of water to which the Wholesale Customer is entitled under this Agreement. San Francisco shall have the right to determine the location of such connections, in light of the need to maintain the structural integrity of the Regional Water System and, where applicable, the need to limit peaking directly off of Regional Water System pipelines by a Wholesale Customer's individual retail customers, the need to ensure that a Wholesale Customer's individual retail customers have access to alternative sources of water in the event of a reduction in San Francisco's ability to provide them with water, and other factors which may affect the desirability or undesirability of a particular location. San Francisco's decisions regarding the location of new connections and the location, size and type of any new meters shall not be reviewable by a court except for an abuse of discretion or failure to provide a Wholesale Customer with connections and meters adequate to deliver the quantity of water to which it is entitled under this Agreement.

### **3.03 Wholesale Customer Service Areas**

A. Each of the Individual Water Sales Contracts described in Section 9.01 will contain, as an exhibit, a map of the Wholesale Customer's service area. A Wholesale Customer may not deliver water furnished to it by San Francisco outside the boundary of its service area without the prior written consent of San Francisco, except for deliveries to another Wholesale Customer on an emergency and temporary basis pursuant to Section 3.07.B.

B. If a Wholesale Customer wishes to expand its service area, it shall request San Francisco's consent to the expansion and provide information reasonably requested by San Francisco about the amount of water projected to be purchased from San Francisco to meet demand within the area proposed to be added to the service area.

C. San Francisco may refuse a Wholesale Customer's request to expand its service area on any reasonable basis. If San Francisco denies a request by a Wholesale Customer to expand its service area, or fails to act on the request for six months after it has been submitted, the Wholesale Customer may challenge San Francisco's denial or delay in court. Such a challenge may be based on the Wholesale Customers' claim, reserved in Section 8.07, that San Francisco is obligated under federal or state law to furnish water, included within its Individual Supply Guarantee, to it for delivery outside its then-existing service area and that it is entitled to enlarge its service area to supply water to such customers. San Francisco reserves the right to contest any such claim on any applicable ground. This subsection does not apply to San Jose and Santa Clara, whose maximum service areas are fixed pursuant to Section 9.06.

D. This section will not prevent San Francisco and any Wholesale Customer, other than San Jose and Santa Clara, from agreeing in an Individual Water Sales Contract or an amendment thereto that:

- the Wholesale Customer may expand its service area without subsequent San Francisco approval to a definitive size but no larger, or
- the Wholesale Customer will not expand its service area beyond its present limits without San Francisco approval

and waiving the provisions of this section with respect to any additional expansion.

E. If two or more Wholesale Customers agree to adjust the boundaries of their respective service areas so that one assumes an obligation to serve customers in an area that was previously within the service area of another Wholesale Customer, they may also correspondingly adjust their respective Individual Supply Guarantees. Such adjustments are not subject to the requirements of Section 3.04 and shall require only the consent of San Francisco and the Wholesale Customers involved, so long as the Supply Assurance and the Individual Supply Guarantees of other Wholesale Customers are not affected. Service area boundary adjustments that would result in the expansion of any California Water Service Company service areas are subject to the requirements of Section 9.02.D. Any adjustment of service area boundaries that would result in the supply of water in violation of this Agreement or the Act shall be void.

F. San Francisco acknowledges that it has heretofore consented in writing to deliveries of water by individual Wholesale Customers outside their service area boundaries and

agrees that nothing in this Agreement is intended to affect such prior authorizations, which remain in full force and effect according to their terms. Such authorizations shall be identified in the Individual Water Sales Contracts.

### **3.04 Permanent Transfers of Individual Supply Guarantees**

A. A Wholesale Customer that has an Individual Supply Guarantee may transfer a portion of it to one or more other Wholesale Customers, as provided in this section.

B. Transfers of a portion of an Individual Supply Guarantee must be permanent. The minimum quantity that may be transferred is 1/10th of a MGD.

C. Transfers of portions of Individual Supply Guarantees are subject to approval by the SFPUC. SFPUC review is limited to determining (1) whether a proposed transfer complies with the Act, and (2) whether the affected facilities in the Regional Water System have sufficient capacity to accommodate delivery of the increased amount of water to the proposed transferee.

D. The participants in a proposed transfer shall provide notice to the SFPUC specifying the amount of the Individual Supply Guarantee proposed to be transferred, the proposed effective date of the transfer, which shall not be less than 60 days after the notice is submitted to the SFPUC, and the Individual Supply Guarantees of both participants resulting from the transfer. The SFPUC may require additional information reasonably necessary to evaluate the operational impacts of the transfer. The SFPUC will not unreasonably withhold or delay its approval; if the SFPUC does not act on the notice within 60 days, the transfer will be deemed to have been approved.

E. Within 30 days after the transfer has become effective, both the transferor and the transferee will provide notice to the SFPUC and BAWSCA. By September 30 of each year during the Term, the SFPUC and BAWSCA will prepare an updated Attachment C to reflect transfers occurring during the immediately preceding fiscal year.

F. Amounts transferred will remain subject to pro rata reduction under the circumstances described in Section 3.02.C and according to the formula set forth in Attachment D.

### **3.05 Restrictions on Resale**

Each Wholesale Customer agrees that it will not sell any water purchased from San Francisco to a private party for resale by such private party to others in violation of the Act.

Each Wholesale Customer also agrees that it will not sell water purchased from San Francisco to another Wholesale Customer without prior written approval of the SFPUC, except on a temporary and emergency basis as permitted in Section 3.07.B.2. The SFPUC agrees that it will not unreasonably withhold its consent to a request by a Wholesale Customer to deliver water to another Wholesale Customer for resale.

### **3.06 Conservation; Use of Local Sources; Water Management Charge**

A. In order to support the continuation and expansion of water conservation programs, water recycling, and development of alternative supplies within the Wholesale Customers' service areas, the SFPUC will, if requested by BAWSCA, include the Water Management Charge in water bills sent to Wholesale Customers. The SFPUC will deliver all Water Management Charge revenue to BAWSCA monthly and shall deliver an annual accounting of Water Management Charge revenue to BAWSCA within 90 days after the end of each fiscal year. The SFPUC's obligations to collect and deliver Water Management Charge revenue to BAWSCA under this subsection are conditioned on BAWSCA's delivery to the SFPUC of an annual report describing the projects and programs on which Water Management Charge funds received from the SFPUC during the previous fiscal year were expended and an estimate of the amount of water savings attributable to conservation programs and of the yield of alternative supplies developed. This report will be due within 180 days after the end of each fiscal year during which Water Management Charge funds were received.

B. The SFPUC will work together with BAWSCA to explore ways to support water conservation programs, recycling projects, and conjunctive use alternatives outside the Wholesale Service Area, in particular projects and programs that have the potential to increase both flows in the lower Tuolumne River (downstream of New Don Pedro Reservoir) and water deliveries to the Regional Water System.

C. Each Wholesale Customer shall take all actions within its legal authority related to water conservation that are necessary to insure that the SFPUC (a) remains eligible for (i) state and federal grants and (ii) access to the Drought Water Bank operated by the California Department of Water Resources, as well as other Drought-related water purchase or transfer programs, and (b) complies with future legal requirements imposed on the Regional Water System by the federal government, the State, or any other third party as conditions for receiving funding or water supply.

D. San Francisco and each Wholesale Customer agree that they will diligently apply their best efforts to use both surface water and groundwater sources located within their respective service areas and available recycled water to the maximum feasible extent, taking into account the environmental impacts, the public health effects and the effects on supply reliability of such use, as well as the cost of developing such sources.

**3.07 Restrictions on Purchases of Water from Others; Minimum Annual Purchases**

A. Each Wholesale Customer (except for Alameda County Water District and the cities of Milpitas, Mountain View and Sunnyvale) agrees that it will not contract for, purchase or receive, with or without compensation, directly or indirectly, from any person, corporation, governmental agency or other entity, any water for delivery or use within its service area without the prior written consent of San Francisco.

B. The prohibition in subsection A does not apply to:

1. recycled water;
2. water necessary on an emergency and temporary basis, provided that the Wholesale Customer promptly gives San Francisco notice of the nature of the emergency, the amount of water that has been or is to be purchased, and the expected duration of the emergency; or
3. water in excess of a Wholesale Customer's Individual Supply Guarantee.

C. Alameda County Water District and the cities of Milpitas, Mountain View and Sunnyvale may purchase water from sources other than San Francisco, provided that San Francisco shall require that each purchase a minimum annual quantity of water from San Francisco. These minimum quantities are set out in Attachment E and shall also be included in the Individual Water Sales Contracts between San Francisco and each of these four Wholesale Customers. The minimum purchase requirement in these Individual Water Sales Contracts will be waived during a Drought or other period of water shortage if the water San Francisco makes available to these Wholesale Customers is less than its minimum purchase quantity.

**3.08 Water Quality**

A. San Francisco shall deliver treated water to Wholesale Customers (except Coastside County Water District, which receives untreated water from Crystal Springs and Pilarcitos Reservoirs) that complies with primary maximum contaminant level and treatment



technique standards at the regulatory entry points designated in the San Francisco Regional Water System Domestic Water Supply Permit (currently Permit No. 02-04-04P3810001) issued by the California Department of Public Health (CDPH).

B. San Francisco will provide notice to the Wholesale Customers in accordance with the Water Quality Notification and Communications Plan (current version dated January 2006), attached hereto as Attachment G. San Francisco will regularly update its plan in consultation with the Wholesale Customers and the CDPH. The next update will be completed one year after the Effective Date and include expanded coverage of secondary maximum contaminant level exceedances and water quality communication triggers. The plan will note that the Wholesale Customers will receive the same notification no later than the San Francisco water system (currently Permit No. 02-04-01P3810011) except for distribution-related issues.

C. San Francisco and the Wholesale Customers will establish a Water Quality Committee. The Water Quality Committee will meet at least quarterly to collaboratively address water quality issues, such as Water Quality Notification and Communications Plan updates, regulatory issues, and water quality planning studies/ applied research. San Francisco and each Wholesale Customer will designate a representative to serve on the committee. There will be a Chair and Vice Chair position for the Water Quality Committee. The Chair and Vice Chair positions will be held by San Francisco and the Wholesale Customers and rotate between them on an annual basis.

### **3.09 Completion of WSIP**

San Francisco will complete construction of the physical facilities in the WSIP by December 31, 2015. The SFPUC agrees to provide for full public review and comment by local and state interests of any proposed changes that delay previously adopted project completion dates or that delete projects. The SFPUC shall meet and consult with BAWSCA before proposing to the Commission any changes in the scope of WSIP projects which reduce their capacity or ability to achieve adopted levels of service goals. The SFPUC retains discretion to determine whether to approve the physical facilities in the WSIP until after it completes the CEQA process as set forth in Section 4.07.

### **3.10 Regional Water System Repair, Maintenance and Operation**

A. San Francisco will keep the Regional Water System in good working order and repair consistent with prudent utility practice.

B. San Francisco will submit reports to its Retail and Wholesale Customers on the "State of the Regional Water System," including reports on completed and planned maintenance, repair or replacement projects or programs, by September of every even-numbered year, with reports to start in September 2010.

C. San Francisco will cooperate with any audit of the SFPUC's asset management practices that may be initiated and financed by BAWSCA or the Wholesale Customers. BAWSCA may contract with third parties to conduct the audits. San Francisco will consider the findings and recommendations of such audits and will provide a written response indicating agreement with the recommendations, or disagreement with particular recommendations and the reasons why, within 90 calendar days after receipt.

D. San Francisco will continue to operate its reservoirs in a manner that assigns higher priority to the delivery of water to the Bay Area and the environment than to the generation of electric power. The SFPUC, as the Regional Water System operator, is solely responsible for making day-to-day operational decisions.

### 3.11 **Shortages**

A. **Localized Water Reductions.** Notwithstanding San Francisco's obligations to deliver the Supply Assurance to the Wholesale Customers collectively and the Individual Supply Guarantees to Wholesale Customers individually, San Francisco may reduce the amount of water available or interrupt water deliveries to specific geographical areas within the Regional Water System service area to the extent that such reductions are necessary due to Emergencies, or in order to install, repair, rehabilitate, replace, investigate or inspect equipment in, or perform other maintenance work on, the Regional Water System. Such reductions or interruptions may be imposed by San Francisco without corresponding reductions or interruptions in the amount of water available to SFPUC water users outside the specific geographical area where reductions or interruptions are necessary, if the system's ability to supply water outside the specific geographical area has not been impaired. In the event of such a reduction or interruption, San Francisco will restore the supply of water to the specific geographical area as soon as is possible. Except in cases of Emergencies (during which oral notice shall be sufficient), San Francisco will give the affected Wholesale Customer(s) reasonable written notice of such localized reductions or interruptions, the reasons therefor, and the probable duration thereof.

**B. System-Wide Shortages and SFPUC Response to Regional Emergencies.**

Following a major system emergency event, the SFPUC will work closely with its Wholesale Customers to monitor customer demand, including the demand source. In the event that any individual Wholesale Service Area or Retail Service Area customer's uncontrolled distribution system leaks could result in major water waste and endanger the supply provided by the Regional Water System as a whole, flow through some customer connections may need to be temporarily reduced or terminated. SFPUC will work closely with customers to assess the nature of the demand (e.g. fire-fighting versus leakage), so that public health and safety protection can be given top priority.

1. All emergencies that require use of non-potable source water will require use of chlorine, or other suitable disinfectant, if feasible.

2. San Francisco will use its best efforts to meet the seismic reliability and delivery reliability level of service goals adopted by the Commission in conjunction with the WSIP. San Francisco will distribute water on an equitable basis throughout the Regional Water System service area following a regional Emergency, subject to physical limitations caused by damage to the Regional Water System.

3. San Francisco's response to Emergencies will be guided by the then-current version of the ERRP. The SFPUC shall periodically review, and the Commission may amend, the ERRP to ensure that it remains an up-to-date and effective management tool.

4. The SFPUC will give the Wholesale Customers notice of any proposal to amend the ERRP in a manner that would affect them. The notice will be delivered at least thirty days in advance of the date on which the proposal is to be considered by the Commission and will be accompanied by the text of the proposed amendment.

**C. Shortages Caused by Drought; Acquisition of Dry Year Supplies.**

Notwithstanding San Francisco's obligations to deliver the Supply Assurance to the Wholesale Customers collectively and the Individual Supply Guarantees to Wholesale Customers individually, San Francisco may reduce the amount of water available to the Wholesale Customers in response to Drought.

1. The Tier 1 Shortage Plan (Attachment H) will continue to be used to allocate water from the Regional Water System between Retail and Wholesale Customers during system-wide shortages of 20% or less.

2. San Francisco and the Wholesale Customers may negotiate in good faith revisions to the Tier 1 Shortage Plan to adjust for and accommodate anticipated changes due to demand hardening in the SFPUC's Wholesale and Retail Service Areas. Until agreement is reached, the current Tier 1 Shortage Plan will remain in effect.

3. The SFPUC will honor allocations of water among the Wholesale Customers ("Tier 2 Allocations") provided by BAWSCA or if unanimously agreed to by all Wholesale Customers. If BAWSCA or all Wholesale Customers do not provide the SFPUC with Tier 2 Allocations, then the SFPUC may make a final allocation decision after first meeting and discussing allocations with BAWSCA and the Wholesale Customers. For Regional Water System shortages in excess of 20%, San Francisco shall (a) follow the Tier 1 Shortage Plan allocations up to the 20% reduction, (b) meet and discuss how to implement incremental reductions above 20% with the Wholesale Customers, and (c) make a final determination of allocations above the 20% reduction. After the SFPUC has made the final allocation decision, the Wholesale Customers shall be free to challenge the allocation on any applicable legal or equitable basis.

4. San Francisco will use its best efforts to identify potential sources of dry year water supplies and establish the contractual and other means to access and deliver those supplies in sufficient quantity to meet a goal of not more than 20 percent system-wide shortage in any year of the design drought.

5. San Francisco will cooperate with BAWSCA to improve water supply reliability. As an example of such cooperation, San Francisco may invite a representative of BAWSCA to attend and participate in meetings with third parties for development of dry year water supplies. If San Francisco does not invite a BAWSCA representative to attend a specific scheduled meeting, it will promptly (within 30 days of any such meeting) provide BAWSCA with a written or oral report on the meeting, including any decisions reached at it, as well as information about planned subsequent meetings. Progress in securing dry year water supplies will be reported to the SFPUC and the BAWSCA board of directors during the first quarter of each calendar year.

### **3.12 Wheeling of Water from Outside SFPUC System**

Subject to the Wheeling Statute, the SFPUC will not deny use of Regional Water System unused capacity for wheeling when such capacity is available for wheeling purposes during

periods when the SFPUC has declared a water shortage emergency under Water Code Section 350 if the following conditions are met:

A. The transferor pays reasonable charges incurred by the SFPUC as a result of the wheeling, including capital, operation, maintenance, administrative and replacement costs (as such are defined in the Wheeling Statute).

B. Wheeled water that is stored in the Regional Water System spills first.

C. Wheeled water will not unreasonably: (1) impact fish and wildlife resources in Regional Water System reservoirs; (2) diminish the quality of water delivered for consumptive uses; or (3) increase the risk of exotic species impairing Regional Water System operations. The transferor may at its own expense provide for treatment to mitigate these effects.

D. Priority will be given to wheeling by Wholesale Customers or BAWSCA over arrangements for third-party public entities.

### **3.13 Limits on New Customers**

**A. New Wholesale Customers Prior to December 31, 2018.** Until December 31, 2018, San Francisco will not enter into contracts to supply water to any entity other than a Wholesale Customer (whether permanent or temporary, firm or interruptible) unless:

1. It completes any necessary environmental review under CEQA of the proposed new wholesale water service obligations as provided in Section 4.07;

2. It concurrently completes any necessary environmental review under CEQA as provided in Section 4.07 and commits to make both San Jose and Santa Clara permanent customers with Individual Supply Guarantees equal to at least 9 MGD; and

3. This Agreement is amended to incorporate any commitments to proposed new wholesale customers and to San Jose and Santa Clara, and to address the effects, if any, of the new customer(s) on water supply reliability, water quality and cost to existing customers of the Regional Water System.

**B. New Wholesale Customers After December 31, 2018.** As of January 1, 2019, San Francisco will not enter into contracts to supply water to any entity other than a Wholesale Customer (whether permanent or temporary, firm or interruptible) unless:

1. It completes any necessary environmental review under CEQA of the proposed new wholesale water service obligations as provided in Section 4.07;
2. It concurrently completes any necessary environmental review under CEQA as provided in Section 4.07 and commits to make both San Jose and Santa Clara permanent customers with Individual Supply Guarantees equal to at least 9 MGD;
3. Doing so increases the reliability of the Regional Water System; and
4. This Agreement is concurrently amended (a) to reflect that increased reliability by means of an increased commitment by San Francisco to deliver water during Droughts and (b) to address the effects, if any, of the new customer(s) on water supply, water quality and cost to existing customers of the Regional Water System.

**C. New Retail Customers.** San Francisco may enter into new retail water service obligations outside of the City and County of San Francisco:

1. Only in Alameda, San Mateo, Santa Clara, San Joaquin and Tuolumne Counties;
2. That are within or immediately adjacent to areas in which it currently serves other Retail Customers; and
3. Until the aggregate additional demand represented by the new retail customers reaches 0.5 MGD.

The limitations on serving new Retail Customers described in this subsection do not apply to historical obligations to supply water that may be contained in prior agreements between the SFPUC or its predecessor the Spring Valley Water Company, and individual users or property owners located adjacent to Regional Water System transmission pipelines.

**D. Water Exchanges and Cost Sharing Agreements with Other Water Suppliers.** Subject to completion of necessary environmental review under CEQA, San Francisco may at any time enter into water exchanges or cost sharing agreements with other water suppliers to enhance dry year or normal year water deliveries, provided that San Francisco cannot incur new water service obligations to such other water suppliers unless the requirements for taking on new wholesale customers in subsections A and B above are met.

### **3.14 Measurement of Water**

A. The parties recognize that continuous and accurate measurement of water deliveries to and from the Regional Water System and maintenance of complete and accurate records of those measurements is necessary (1) for the costs of the Regional Water System to be allocated in accordance with this Agreement, (2) for implementation of other provisions of this Agreement, and (3) for effective operation and maintenance of a water system serving a large urbanized region.

B. It is the responsibility of the SFPUC to obtain and record these measurements. To do so, the SFPUC shall install, maintain and operate measuring and recording equipment at the following locations: (1) inputs to the Regional Water System from all water sources (“System Input Meters”), (2) internal flow meters to support operation of the Regional Water System (“In-Line Meters”), (3) deliveries to the City at the San Francisco-San Mateo County line (“County-Line Meters”) and to three reservoirs in San Francisco (“In-City Terminal Reservoir Meters”), (4) deliveries to SFPUC Retail Customers located outside the boundaries of the City, and (5) deliveries to the Wholesale Customers, as described and illustrated in Attachment J.

C. The SFPUC shall inspect, test, service, and calibrate the measuring and recording equipment installed at the locations described in subsection B and will repair or replace them when necessary, in order to ensure that their accuracy is consistent with specifications provided in Attachment J.

D. The SFPUC shall continue to contract with a qualified independent metering consultant to perform periodic inspection, testing, servicing and calibration of the County-Line Meters, the In-City Terminal Reservoir Meters, and the System Input and In-Line Meters described in Attachment J, as well as the portion of the SFPUC’s Supervisory Control and Data Acquisition (SCADA) system that utilizes the flow signals produced by that measuring and recording equipment. The method, schedule and frequency for calibration and maintenance of the County-Line Meters and the In-City Terminal Reservoir Meters are specified in Attachment J. The SFPUC shall provide copies of the metering consultant’s reports to BAWSCA.

E. System Input Meters measure water deliveries into the Regional Water System from sources such as Hetch Hetchy and the SFPUC’s water treatment plants. System Input Meters also measure deliveries from the Regional Water System to outside sources or from

such sources to the Regional Water System through interties with the Santa Clara Valley Water District and the East Bay Municipal Utility District. In-Line Meters measure internal system flows and are located on the Bay Division Pipelines and other main transmission pipelines. These meters are collectively referred to as the “System Input and In-line Meters.” Similar to the County-Line Meters, the System Input and In-Line Meters have secondary metering equipment, such as differential pressure transmitters and flow recorders. The System Input and In-Line Meters, and all associated secondary metering equipment, shall be calibrated and maintained according to the method, schedule, and frequency specified in the Procedures Manual described in subsection G, below.

F. The locations of the smaller and more numerous meters described in subsection B (4) and (5) are not illustrated in Attachment J; however, they are also critical in the determination of cost allocations, and accordingly require continued maintenance and calibration. It is the responsibility of the SFPUC to maintain the accuracy of these meters and their secondary metering equipment.

G. The SFPUC will prepare a Procedures Manual which will describe in detail the procedures for periodic inspection, testing, servicing and calibration of the measuring and recording equipment described in subsection B. Once the Procedures Manual is completed, the SFPUC and BAWSCA may agree that it should supersede some or all of the requirements in Attachment J regarding the County-Line and the In-City Terminal Reservoir Meters. Unless and until such an agreement is reached and documented, however, the requirements in Attachment J, Section D will continue in force as minimum standards for meter maintenance and calibration of the County-Line and In-City Terminal Reservoir Meters (subject to modification under the circumstances described in Attachment J, Section A.4).

H. If BAWSCA and the SFPUC are unable to agree on the water use calculations required by Attachment J for a particular year, the Wholesale Customers may file a demand for arbitration challenging the SFPUC's determination of the Wholesale Revenue Requirement for that year on the basis of its reliance on disputed water use calculations. Such a challenge must be brought in the manner and within the time specified in Section 8.01.

### **3.15 New Sources of Water Supply to Maintain Supply Assurance**

**A. Urgent Reductions of Existing Surface Water Supplies.** Sudden and unanticipated events may require San Francisco to act promptly to protect the health, safety and



economic well-being of its Retail and Wholesale Customers. Such sudden events include, but are not limited to drought, earthquakes, terrorist acts, catastrophic failures of facilities owned and operated by San Francisco, and other natural or man-made events. If such events diminish San Francisco's ability to maintain the Supply Assurance, San Francisco may increase the Wholesale Revenue Requirement to pay for planning, evaluation and implementation of replacement sources of supply when such needs arise and without the prior approval of the Wholesale Customers. San Francisco will keep the Wholesale Customers informed of actions being taken under this subsection, progress made, and contingency actions the Wholesale Customers may need to consider taking. To the extent appropriate and applicable, San Francisco will act in accordance with Section 3.11 and the ERRP. Nothing in this subsection limits San Francisco's obligations under Section 3.11 to pursue additional sources of supply to augment supplies available during drought.

**B. Non-Urgent Reductions of Existing Surface Water Supplies.** Climate change, regulatory actions and other events may impact San Francisco's ability to maintain the Supply Assurance from its existing surface water supplies, but on timescales long enough to permit San Francisco to collaborate with its Wholesale Customers on how best to address possible impacts to water supply. If such events diminish San Francisco's ability to maintain the Supply Assurance, San Francisco may increase the Wholesale Revenue Requirement to pay for planning, evaluation and implementation of replacement sources of supply when such needs arise and without the prior approval of the Wholesale Customers. San Francisco will keep the Wholesale Customers informed of actions being taken under this subsection, progress made, and contingency actions the Wholesale Customers may need to consider taking. San Francisco will solicit input and recommendations from BAWSCA and the Wholesale Customers, and take those recommendations into consideration. Prior to Commission approval of plans or taking other actions that would impact the Wholesale Revenue Requirement, San Francisco will hold a public hearing to receive written and oral comments. Nothing in this subsection modifies San Francisco's obligation to maintain the ability to provide the Supply Assurance under this Agreement.

### **3.16 New Sources of Water Supply to Increase Supply Assurance**

**A. Surface Water Supplies From Existing Watersheds After 2018.** The Commission action in SFPUC Resolution Number 08-0200, adopted October 30, 2008 requires certain decisions by San Francisco regarding whether to supply more than 265 MGD from its

watersheds following 2018. Such decisions are to be made by December 31, 2018, subject to the exercise of San Francisco's retained CEQA discretion in Section 4.07. San Francisco's future decisions may include an offer to increase the Supply Assurance at the request of some or all of its Wholesale Customers. Costs associated with providing additional water from its existing water supplies in San Mateo, Santa Clara, Alameda, Tuolumne, and Stanislaus Counties shall be allocated to Wholesale and Retail Customers as described in Article 5.

**B. New Water Supplies.** If San Francisco seeks to develop additional water supplies from new sources to increase the Supply Assurance available to Wholesale Customers, studies and resulting water supply projects will be conducted jointly with BAWSCA under separate agreement(s) specifying the purpose of the projects, the anticipated regional benefits and how costs of studies and implementation will be allocated and charged. Nothing in this Agreement shall serve as precedent for the allocation of such new supply capital costs between Retail and Wholesale Customers or associated operational expenses, which shall only occur following approval of both parties and amendment of this Agreement, if necessary, under Section 2.03.

### **3.17 Westside Basin Conjunctive Use Program**

Subject to completion of necessary CEQA review as provided in Section 4.07, the SFPUC may enter into an agreement with the cities of Daly City and San Bruno and the California Water Service Company, South San Francisco Service Area ("Participating Pumpers") governing the operation of the South Westside Basin Conjunctive Use Program ("Program"), a WSIP Project. The Program would produce Regional benefits for all customers of the Regional Water System by making use of available groundwater storage capacity in the Southern portion of the Westside Basin through the supply of additional surface water ("In Lieu Water") to the Participating Pumpers from the Regional Water System, in exchange for a corresponding reduction in groundwater pumping at existing wells owned by the Participating Pumpers. The new groundwater supply that would accrue to storage as a result of delivery of In Lieu Water would then be recovered from the SFPUC basin storage account during water shortages using new SFPUC Regional Program wells operated by the Participating Pumpers and the SFPUC. Program annual operations and maintenance expenses and water supplies are expected to be allocated as follows:

A. All In Lieu Water delivered to the Participating Pumpers shall be (1) temporary and interruptible in nature and (2) at the sole discretion of the SFPUC based on the total volume of water available to the Regional Water System.

B. All In Lieu Water delivered to the Participating Pumpers shall be considered a delivery of water to storage and shall not be construed to affect or increase the Individual Supply Guarantees of these wholesale customers or to otherwise entitle them to any claim of water in excess of their Individual Supply Guarantees or their Interim Supply Allocations. Furthermore, Environmental Enhancement Surcharges authorized under Section 4.04 will not be applied by the SFPUC to any quantity of In Lieu Water that is delivered to the Participating Pumpers, but will instead be based solely on Participating Pumper water deliveries in excess of their respective Interim Supply Allocations.

C. Any operation and maintenance expenses incurred by the Participating Pumpers and the SFPUC that are related to the operation of Regional Program wells and related assets shall be included as Regional pumping expenses under Section 5.05.B and included as part of the Wholesale Revenue Requirement. For rate setting purposes, estimated Regional Program operation and maintenance expenses shall be used as set forth in Section 6.01. Operation and maintenance expenses associated with the Participating Pumpers' existing wells that do not provide Regional benefits shall not be included in the Wholesale Revenue Requirement. On a case-by-case basis, the SFPUC may include Participating Pumper existing well operation and maintenance expenses in the Wholesale Revenue Requirement provided that such expenses (1) are solely attributable to Regional Program operations and (2) are not caused by the Participating Pumper's failure to operate and maintain its existing wells in a reasonable and prudent manner consistent with water utility industry standards.

D. The SFPUC will audit operation and maintenance expenses submitted by the Participating Pumpers for reimbursement to confirm that such costs were incurred as a result of operating Regional Program wells and related assets. Costs associated with the use of Program facilities for Direct Retail or Direct Wholesale purposes, or that do not otherwise provide Regional benefits, shall not be included in the Wholesale Revenue Requirement. The SFPUC is responsible for resolving disputes with the Participating Pumpers concerning expense allocations. Program expense documentation, including documentation of negotiation and settlement of disputed costs, will be available for review during the Compliance Audit described

in Section 7.04. The Wholesale Customers may dispute the SFPUC's resolution of expense allocations through the arbitration provisions in Section 8.01 of this Agreement.

E. The SFPUC may direct the Participating Pumpers to recover water from the SFPUC basin storage account for any type of shortage referenced in Section 3.11. Water recovered from the SFPUC basin storage account using Regional Program wells may be used for (1) the benefit of all Regional Water System customers; (2) Retail Customers; or (3) one or more of the Participating Pumpers. The Wholesale Revenue Requirement shall only include operation and maintenance expenses incurred due to the operation of Program wells for Regional benefits.

F. All water recovered from the SFPUC basin storage account by the Participating Pumpers and by the SFPUC for delivery to Retail Customers during Shortages caused by Drought shall be used to free up a comparable volume of surface water from the Regional Water System for allocation in accordance with the Tier 1 Shortage Plan.

G. If the Program is terminated for any reason, including breach of the Program agreement by the Participating Pumpers or SFPUC, or due to regulatory action or legal action, then

1. Any water remaining SFPUC Regional storage account shall be used for the benefit of all customers of the Regional Water System;

2. Outstanding eligible operation and maintenance expenses, including costs incurred during recovery of remaining stored water, will be allocated as provided in this section; and

3. The Wholesale Customers will be credited with their share of proceeds from disposition of Program facilities or reimbursed their share of such capital costs for any Program facilities which are retained by the SFPUC for Direct Retail benefit and not used for the benefit of the Wholesale Customers, on the basis of (a) original cost less depreciation and outstanding related Indebtedness or (b) original cost less accumulated depreciation for revenue funded Regional Program facilities.

## **Article 4. Implementation of Interim Supply Limitation.**

### **4.01 Interim Supply Limitation Imposed by SFPUC**

In adopting the WSIP in Res. No. 08-0200, the Commission included full implementation of all proposed WSIP capital improvement projects to achieve level of service goals relating to public health, seismic safety, and delivery reliability, but decided to adopt a water supply element that includes the Interim Supply Limitation. This article describes how the parties will implement the Interim Supply Limitation imposed by the SFPUC between the Effective Date and December 31, 2018.

### **4.02 Retail and Wholesale Customer Allocations Under Interim Supply Limitation**

The Interim Supply Limitation is allocated as follows between Retail and Wholesale Customers:

Retail Customers' allocation:	81 MGD
Wholesale Customers' allocation:	184 MGD

The Wholesale Customers' collective allocation of 184 MGD under the Interim Supply Limitation includes the demand of the cities of San Jose and Santa Clara, whose demand is not included in the Supply Assurance, as provided in Section 3.02.B. By December 31st, 2010, the Commission will establish each Wholesale Customer's Interim Supply Allocation at a public meeting.

### **4.03 Transfers of Interim Supply Allocations**

A. Any Wholesale Customer, including Hayward, may transfer a portion of its Interim Supply Allocation to one or more other Wholesale Customers, as provided in this section. All Wholesale Customers are also eligible transferees, including California Water Service Company up to its Individual Supply Guarantee.

B. Transfers of a portion of an Interim Supply Allocation must be prospective. The duration of a transfer cannot be less than the balance of the fiscal year. The minimum quantity that may be transferred is 1/10th of a MGD.

C. Transfers of portions of Interim Supply Allocations are subject to approval by the SFPUC. SFPUC review is limited to determining (1) whether a proposed transfer complies with

the Act, and (2) whether the affected facilities in the Regional Water System have sufficient capacity to accommodate delivery of the increased amount of water to the proposed transferee.

D. The participants in a proposed transfer shall provide notice to the SFPUC specifying the amount of the Interim Supply Allocation proposed to be transferred and the proposed effective date of the transfer, which shall not be less than 60 days after the notice is submitted to the SFPUC. The SFPUC may require additional information reasonably necessary to evaluate the operational impacts of the transfer. The SFPUC will not unreasonably withhold or delay its approval; if the SFPUC does not act on the notice within 60 days, the transfer will be deemed to have been approved.

E. Within 30 days after the transfer has become effective, both the transferor and the transferee will provide written notice to the SFPUC and BAWSCA.

F. Transfers of Interim Supply Allocations shall continue in effect until the earlier of (1) delivery of written notice to the SFPUC by the transfer participants that the transfer has been rescinded or (2) December 31, 2018.

#### **4.04 Environmental Enhancement Surcharge**

**A. Establishment of Environmental Enhancement Surcharge.** Beginning with wholesale water rates for fiscal year 2011-2012, and continuing for the duration of the Interim Supply Limitation, the Commission will establish the Environmental Enhancement Surcharge concurrently with the budget-coordinated rate process set forth in Article 6 of this Agreement. The monetary amount of the Environmental Enhancement Surcharge per volume of water, such as dollars per acre-foot, will be equivalent for Retail Customer use in excess of 81 MGD and Wholesale Customer use in excess of 184 MGD. The Environmental Enhancement Surcharge will be simple to calculate so that Wholesale Customers can estimate potential surcharges for budgeting purposes and establish retail rates within their service areas.

**B. Application of Environmental Enhancement Surcharge.** Beginning in fiscal year 2011-12, the Environmental Enhancement Surcharge will be levied only if and when combined Retail Customer and Wholesale Customer purchases exceed the Interim Supply Limitation of 265 MGD and if the fund described in subsection D below has been established by the San Francisco Board of Supervisors. In that event, the Environmental Enhancement Surcharge will apply to Retail Customers for use in excess of 81 MGD and to individual

Wholesale Customers for use in excess of their Interim Supply Allocations established by the Commission pursuant to Section 4.02.

1. Environmental Enhancement Surcharges related to the Retail Customers' use in excess of their 81 MGD Retail Customer Allocation will be paid by the SFPUC, and no portion of such surcharges may be allocated to Wholesale Customers. The method of recovering the Environmental Enhancement Surcharges imposed upon Retail Customers shall be within the sole discretion of the SFPUC.

2. Environmental Enhancement Surcharges related to the individual Wholesale Customers' use in excess of their respective Interim Supply Allocations will be paid to the SFPUC by individual Wholesale Customers.

**C. Collection of Environmental Enhancement Surcharge.** Notwithstanding the budget-coordinated rate setting process contemplated in Article 6 of this Agreement, the Environmental Enhancement Surcharge for any given year will be determined retrospectively based on actual annual usage during the fiscal year in excess of the Interim Supply Allocation and paid in equal monthly installments over the remainder of the immediately following fiscal year.

**D. Establishment of Fund for Environmental Enhancement Surcharge Proceeds.** Environmental Enhancement Surcharges paid by the SFPUC and by Wholesale Customers will be placed into a restricted reserve fund. The SFPUC will request the San Francisco Board of Supervisors to establish this fund by ordinance and, if adopted, the fund will be subject to the following restrictions:

1. Interest earnings will stay in the reserve fund.
2. The reserve fund shall (a) be subject to automatic appropriation; (b) require unexpended and unencumbered fund balances to be carried forward from year to year; and (c) not be transferred to the San Francisco General Fund.
3. The reserve fund may be used only for specific environmental restoration and enhancement measures for the Sierra and local watersheds, such as those included in the Watershed Environmental Improvement Program.
4. Environmental Enhancement Surcharge proceeds shall be expended in an expeditious manner. Any Environmental Enhancement Surcharge proceeds that remain in

the reserve fund as of December 31, 2018 shall be used to complete projects previously approved under subsection E. Upon completion of the identified projects, the balance of any unexpended sums in the reserve fund shall be distributed to BAWSCA and the SFPUC in proportion to the total amount of surcharges assessed to the Wholesale and Retail Customers, respectively.

**E. Use of Environmental Enhancement Surcharge Proceeds.** Specific uses of Environmental Enhancement Surcharges will be decided by the SFPUC and BAWSCA General Managers following input from environmental stakeholders and other interested members of the public. If parties are unable to agree, then they will jointly select a third person to participate in making the decision.

**4.05 San Jose/ Santa Clara Interim Supply Allocation and Process for Reduction/ Termination.**

San Francisco will supply a combined annual average of 9 MGD to the cities of San Jose and Santa Clara through 2018. Water supplied by San Francisco may only be used in the existing defined service areas in the northern portions of San Jose and Santa Clara shown on Attachment Q. San Francisco may reduce the quantity of water specified in this section when it establishes the Interim Supply Allocations for Wholesale Customers in Section 4.02. The establishment of Interim Supply Allocations for San Jose and Santa Clara shall not be considered a reduction of supply within the meaning of this section, provided that the Interim Supply Allocations assigned to San Jose and Santa Clara do not effect a reduction greater than the aggregate average reduction in Individual Supply Guarantees for Wholesale Customers that have such guarantees. The application of Interim Supply Allocations to San Jose and Santa Clara is subject to the following provisions:

A. In December 2010 and in each December thereafter through 2017, the SFPUC shall prepare and the Commission shall consider, at a regularly scheduled public meeting, a Water Supply Development Report detailing progress made toward meeting the Interim Supply Limitation by June 30, 2018.

B. The annual Water Supply Development Report shall be based on water purchase projections and work plans for achieving the Interim Supply Limitation in the Retail and Wholesale Service Areas. The projections and work plans will be prepared by the SFPUC for



the Retail Customers and by BAWSCA for the Wholesale Customers, respectively, and submitted to the Commission in June of each year beginning in 2010.

C. If the Commission finds that the projections in the Water Supply Development Report show that the Interim Supply Limitation will not be met by June 30, 2018, as a result of Wholesale Customers' projected use exceeding 184 MGD, the Commission may issue a conditional five-year notice of interruption or reduction in supply of water to San Jose and Santa Clara.

D. Upon issuance of the conditional notice of interruption or reduction, the SFPUC will prepare a new analysis of water supply that will be utilized by the San Francisco Planning Department in its preparation of any necessary documentation under CEQA pursuant to Section 4.07 on the impacts of interrupting or reducing service to San Jose and Santa Clara.

E. Such notice of interruption or reduction will be rescinded if the Commission finds, based upon a subsequent annual Water Supply Development Report, that sufficient progress has been made toward meeting the Interim Supply Limitation or projections show that the Interim Supply Limitation will be met by June 30, 2018.

F. In no case shall any interruption or reduction of service to San Jose or Santa Clara pursuant to this section become effective less than two years from the completion of the CEQA process (not including resolution of any appeals or litigation) or five years from the notice, whichever is longer. If the five-year notice is issued after 2013, such interruption or reduction would occur after 2018.

G. If deliveries to San Jose and Santa Clara are interrupted, existing turnout facilities to San Jose and Santa Clara will remain in place for possible use during emergencies.

H. San Francisco and the cities of San Jose and Santa Clara will cooperate with BAWSCA and the Santa Clara Valley Water District in the identification and implementation of additional water sources and conservation measures for the cities' service areas that are relevant to the water supply and the possible offer of permanent status for the two cities by the SFPUC.

#### **4.06 San Francisco Decisions in 2018 Regarding Future Water Supply**

A. By December 31, 2018, San Francisco will have completed any necessary CEQA review pursuant to Section 4.07 that is relevant to making San Jose and Santa Clara

permanent customers of the Regional Water System and will decide whether or not to make San Jose and Santa Clara permanent customers of the Regional Water System. San Francisco will make San Jose and Santa Clara permanent customers only if, and to the extent that, San Francisco determines that Regional Water System long term water supplies are available. In the event that San Francisco decides to afford permanent status to San Jose and Santa Clara, this Agreement will be amended pursuant to Section 2.03.

B. By December 31, 2018, San Francisco will have completed any necessary CEQA review pursuant to Section 4.07 and will decide how much water if any, in excess of the Supply Assurance it will supply to Wholesale Customers from the Regional Water System to meet their projected future water demands until the year 2030, and whether to offer a corresponding increase in the Supply Assurance as a result of its determination.

#### **4.07 Retained Discretion of SFPUC and Wholesale Customers**

A. This Agreement contemplates discretionary actions that the SFPUC and the Wholesale Customers may choose to take in the future that could result in physical changes to the environment ("Discretionary Actions"). The Discretionary Actions include decisions to:

1. Develop additional or alternate water resources by the SFPUC or one or more Wholesale Customers;
2. Implement the physical facilities comprising the WSIP by December 31, 2015;
3. Approve wheeling proposals by Wholesale Customers;
4. Approve new wholesale customers and water exchange or cost sharing agreements with other water suppliers;
5. Provide additional water to San Jose and/or Santa Clara;
6. Offer permanent status to San Jose and/or Santa Clara;
7. Reduce or terminate supply to San Jose and/or Santa Clara;
8. Provide additional water to Wholesale Customers in excess of the Supply Assurance to meet their projected future water demands; and

9. Offer a corresponding volumetric increase in the Supply Assurance.

The Discretionary Actions may require the SFPUC or Wholesale Customers to prepare environmental documents in accordance with CEQA prior to the SFPUC or the Wholesale Customers determining whether to proceed with any of the Discretionary Actions. Accordingly, and notwithstanding any provision of this Agreement to the contrary, nothing in this Agreement commits the SFPUC or the Wholesale Customers to approve or carry out any Discretionary Actions that are subject to CEQA. Furthermore, the SFPUC's or Wholesale Customers' decisions to approve any of these Discretionary Actions are subject to the requirement that San Francisco and each Wholesale Customer, as either a "Lead Agency" (as defined in Section 21067 of CEQA and Section 15367 of the CEQA Guidelines) or a "Responsible Agency" (as defined in Section 21069 of CEQA and Section 15381 of the CEQA Guidelines) shall have completed any CEQA-required environmental review prior to approving a proposed Discretionary Action.

B. In considering any proposed Discretionary Actions, the SFPUC and Wholesale Customers retain absolute discretion to: (1) make such modifications to any of the proposed Discretionary Actions as may be necessary to mitigate significant environmental impacts; (2) select feasible alternatives to the proposed Discretionary Actions that avoid significant adverse impacts; (3) require the implementation of specific measures to mitigate the significant adverse environmental impacts as part of the decision to approve the Discretionary Actions; (4) balance the benefits of the proposed Discretionary Actions against any significant environmental impacts before taking final actions to approve the proposed Discretionary Actions if such significant impacts cannot otherwise be avoided; or (5) determine not to proceed with the proposed Discretionary Actions.

## **Article 5. Wholesale Revenue Requirement**

### **5.01 Scope of Agreement**

This Article shall be applicable only to the water rates charged by San Francisco to the Wholesale Customers. Nothing contained in this Agreement shall limit, constrain, or in any way affect the rates which San Francisco may charge for water sold to Retail Customers or the methodology by which such rates are determined.

### **5.02 General Principles**

This Article sets forth the method by which the Wholesale Customers' collective share of expenses incurred by the SFPUC in delivering water to them will be determined. This collective share is defined as the "Wholesale Revenue Requirement."

- A. The SFPUC currently operates several enterprises, including the Water Enterprise, the Wastewater Enterprise, and the Hetch Hetchy Enterprise.
- B. The Wastewater Enterprise is responsible for treating sewage within San Francisco and provides no benefit to the Wholesale Customers.
- C. The Hetch Hetchy Enterprise is responsible for storing and transmitting water to the Water Enterprise, generating hydroelectric power and transmitting it to San Francisco, generating electric power within San Francisco, and distributing electricity and steam heat within San Francisco. Its water supply operations provide benefits to the Wholesale Customers.
- D. The Water Enterprise delivers water to both Retail Customers, which are located both within and outside San Francisco, and to the Wholesale Customers, all of which are located outside San Francisco.
- E. This Article implements two general principles as follows: (1) the Wholesale Customers should not pay for expenses of SFPUC operations from which they receive no benefit and (2) the Wholesale Customers should pay their share of expenses incurred by the SFPUC in delivering water to them on the basis of Proportional Annual Use unless otherwise explicitly provided in this Agreement.
- F. To implement these general principles, the Wholesale Revenue Requirement will consist of, and be limited to, the Wholesale Customers' shares of the following categories of expense:

1. Capital cost recovery of Water Enterprise Existing Assets, and Hetch Hetchy Enterprise Existing Assets classified as Water-Only and the Water-Related portion of Joint assets (Section 5.03)
2. Contribution to the capital cost of Water Enterprise New Regional Assets (Section 5.04)
3. Water Enterprise operation and maintenance expenses, including power purchased from the Hetch Hetchy Enterprise that is used in the operation of the Water Enterprise (Section 5.05)
4. Water Enterprise administrative and general expenses (Section 5.06)
5. Water Enterprise property taxes (Section 5.07)
6. The Water Enterprise's share of the Hetch Hetchy Enterprise's operation and maintenance, administrative and general, and property tax expenses (Section 5.08)
7. The Water Enterprise's share of the Hetch Hetchy Enterprise's capital cost of New Assets classified as Water-Only and the Water-Related portion of Joint assets (Section 5.09)

In each of these cost categories, Direct Retail Expenses will be allocated entirely to Retail Customers. Direct Wholesale Expenses will be allocated entirely to the Wholesale Customers. Regional Expenses will be allocated between Retail Customers and Wholesale Customers as provided in this Article.

G. For purposes of establishing the rates to be charged Wholesale Customers, expenses will be based on the budget for, and estimates of water purchases in, the following fiscal year, as provided in Article 6. For purposes of accounting, the Wholesale Revenue Requirement will be determined on the basis of actual expenses incurred and actual water use, as provided in Article 7.

H. In addition, rates charged to Wholesale Customers may include the Wholesale Customers' contribution to a Wholesale Revenue Coverage Reserve, as provided in Section 6.06, which is not included in the Wholesale Revenue Requirement itself.

### **5.03 Capital Cost Recovery - Existing Regional Assets**

A. SFPUC has previously advanced funds to acquire or construct Existing Assets used and useful in the delivery of water to both Wholesale Customers and Retail Customers. The parties estimate that the Wholesale Customers' share of the net book value of these assets, as of the expiration of the 1984 Agreement on June 30, 2009, will be approximately \$366,734,424, as shown on Attachment K-1.

B. In addition, SFPUC has also previously advanced funds received from Retail Customer revenues to acquire or construct assets included in Construction-Work-In-Progress (CWIP) as of June 30, 2009. The parties estimate that the Wholesale Customers' share of the book value of these revenue funded capital expenditures, as of the expiration of the 1984 Agreement on June 30, 2009, will be approximately \$15,594,990, as shown on Attachment K-2. The Wholesale Customers shall pay their share of the cost of Existing Assets and revenue-funded CWIP by amortizing the amounts shown on Attachment K-1 and Attachment K-2 over 25 years at an interest rate of 5.13 percent. The amounts to be included in the Wholesale Revenue Requirement pursuant to this section shall be the sum of the annual principal and interest amounts shown on Attachments K-3 (for Water Enterprise Regional Assets and the one Direct Wholesale Asset) and K-4 (for Hetch Hetchy Enterprise Water-Only Assets and the Water-Related portion [45 percent] of Joint assets) calculated on the basis of monthly amortization of principal as set forth on Attachments K-3 and K-4.

C. In addition, the Commission has previously appropriated funds, advanced through rates charged to Retail Customers, for construction of capital projects. Some of these projects are active, and have unexpended balances of appropriated funds that are not included in CWIP as of June 30, 2009. These projects, and the associated balances, are shown on Attachment K-5. Expenditures of funds from these balances during FY 2009-10, FY 2010-11 and FY 2011-12 will be reviewed in FY 2012-13. The SFPUC will prepare a report showing the amount expended in each year on each project and the total expended during all years on all projects that are categorized as Regional or, in the case of Hetch Hetchy Enterprise, are categorized as either Water-Only or Joint. The wholesale share of that total will be determined using the allocation principles in this Agreement based on Proportional Water Use during those three years. The result, plus accrued interest at the rate specified in Section 6.05.B, will be calculated by the SFPUC and its calculation reviewed by the Compliance Auditor as part of the Compliance Audit for FY 2012-13. The audited total will be paid based on a schedule of level annual principal and interest amounts over ten years at an interest rate of 4.00%, calculated on

a monthly amortization basis. All or any portion of the balance may be prepaid. The first year's payment will be included in the Wholesale Revenue Requirement for FY 2014-15.

D. The parties agree that the Wholesale Customers' share of the net book values of Existing Regional Assets as of June 30, 2008 as shown on Attachment K-1 are accurate. The compliance audit conducted on the calculation of the FY 2008-09 Suburban Revenue Requirement required by the 1984 Agreement will determine the actual amounts of depreciation on, and capital additions to, plant in service during that fiscal year. Those amounts will be compared to the corresponding estimates shown on Attachments K-1 and K-2. The differences will be added to or subtracted from the estimated asset values shown on Attachments K-1 and K-2 and the amortization schedules in Attachments K-3 and K-4 will be recalculated. The wholesale allocation factors shall be fixed at 70.1% for the Water Enterprise Existing Assets and 64.2% for Hetch Hetchy Enterprise Existing Assets for both the preliminary and final payment schedules. The SFPUC will prepare and provide to the Wholesale Customers revised Attachments K-1 through K-4 based on the Wholesale Customers' share of the net book value of the assets placed in service as of June 30, 2009 used to provide water service to the Wholesale Customers and the net book value of revenue-funded CWIP expended as of June 30, 2009. The revised Attachments K-1 through K-4 shall be approved by the General Manager of the SFPUC and the General Manager/CEO of BAWSCA and will be substituted for the original Attachments K-1 through K-4.

E. The original Attachments K-1 through K-4, based on estimates, shall be used for estimating the Wholesale Revenue Requirement for the fiscal year beginning July 1, 2009. The revised Attachments, based on audited actuals, shall be used to determine the actual Wholesale Revenue Requirement for FY 2009-10 and to determine the Wholesale Revenue Requirement(s) in all subsequent years, except as may be provided elsewhere in this Agreement.

F. The Wholesale Customers, acting through BAWSCA, may prepay the remaining unpaid Existing Assets principal balance, in whole or in part, at any time without penalty or early payment premium. Any prepayments will be applied in the month immediately following the month in which the prepayment is made and the revised monthly amount(s) will be used to calculate the Wholesale Revenue Requirement. Any partial prepayments must be in an amount at least equal to \$10 million. In the event of a partial prepayment, an updated schedule for the remaining payments shall be prepared reflecting the unpaid balance after prepayment,

amortized through the end of FY 2034, calculated as provided in this section. The updated schedule, approved by the General Manager of the SFPUC and the General Manager/CEO of BAWSCA, will be substituted for Attachment K-3 and/or Attachment K-4.

#### **5.04 Capital Cost Contribution - New Regional Assets**

**A. Debt-Funded Capital Additions.** The Wholesale Customers shall pay the wholesale share of Net Annual Debt Service for New Regional Assets. The Regional projects in the WSIP are identified in Attachment L-1.

1. The amount of Net Annual Debt Service for New Regional Assets will be determined for each series of Indebtedness issued. Until the proceeds of a particular series are Substantially Expended, the amount attributable to specific projects will be based on the expected use of proceeds shown in the "Certificate Regarding Use of Proceeds" executed by the SFPUC General Manager on behalf of the Commission in connection with the sale of the Indebtedness, provided such certificate identifies the use of proceeds at a level of detail equivalent to that shown on Attachment L-2, which is a copy of the certificate prepared for the 2006 Revenue Bonds, Series A. If a certificate does not identify the use of proceeds at that level of detail, the SFPUC General Manager shall prepare and execute a separate certificate which does identify the use of proceeds at the level of detail shown on Attachment L-2 and deliver it to BAWSCA within 15 days from the closing of the sale of the Indebtedness.

2. After the proceeds of a series are Substantially Expended, the SFPUC General Manager will prepare and execute a certificate showing the actual expenditure of proceeds at a level of detail equivalent to the initial General Manager certificate. The resulting allocation of Net Debt Service to New Regional Assets for a series of bonds will be used in the fiscal year in which the proceeds have been Substantially Expended and thereafter. Differences between the amount of Net Debt Service paid by Wholesale Customers prior to that year and the amount of Net Debt Service that they should have paid during that time based on the actual expenditure of proceeds will be taken into account in calculation of the balancing account for the fiscal year in which the proceeds were Substantially Expended. The application of the remaining proceeds shall be proportionate to the allocation of the Net Debt Service to New Regional Assets.

3. The Wholesale Customers' share of Net Annual Debt Service for the New Regional Assets that are categorized as Direct Wholesale will be 100 percent. (None of the



projects in the WSIP are categorized as Direct Wholesale.) The Wholesale Customers' share of Net Annual Debt Service for all other New Regional Assets will be determined each year and will be equal to the Wholesale Customers' Proportional Annual Use.

4. If Indebtedness is issued by the SFPUC to refund the 2006 Revenue Bonds, Series A or to refund any other long-term Indebtedness issued after July 1, 2009, the Net Annual Debt Service attributable to proceeds used for refunding will be allocated on the same basis as the Indebtedness being refunded.

5. The SFPUC will prepare an annual report showing for each issue of Indebtedness and through the most recently completed fiscal year: (1) net financing proceeds available to pay project costs, (2) actual earnings on proceeds, (3) actual expenditures by project. The report shall be substantially in the form of Attachment L-3 and shall be delivered to BAWSCA on or before November 30 of each year, commencing November 2009.

6. In addition to Net Debt Service, Wholesale Customers will pay a proportionate share of annual administrative costs associated with Indebtedness, such as bond trustee fees, credit rating agency fees, letter of credit issuer fees, San Francisco Revenue Bond Oversight Committee fees, etc., but only to the extent such fees are neither paid from proceeds of Indebtedness nor included in SFPUC operation and maintenance or administrative and general expenses.

**B. Revenue-Funded Capital Additions.** The Wholesale Customers shall pay the wholesale share of the appropriation contained in the SFPUC annual budget for each year to be used to acquire or construct New Regional Assets. If such appropriations are reimbursed from proceeds of Indebtedness, the Wholesale Customers will be credited for prior payments made under this Section 5.04.B.

The Wholesale Customers' share of the annual appropriation for revenue-funded New Regional Assets that are categorized as Direct Wholesale will be 100 percent. (None of the Repair and Replacement projects in the SFPUC's most recent capital improvement program updated on February 10, 2009, is categorized as Direct Wholesale.) The Wholesale Customers' share of the annual appropriation for all other revenue-funded New Regional Assets will be determined each year and will be equal to the Wholesale Customers' Proportional Annual Use in each fiscal year. The amount appropriated in each fiscal year for the wholesale share of New

Regional Assets shall be contributed to the Wholesale Capital Fund described in Section 6.08 and reported on and administered as shown in that section and Attachments M-1 through M-3.

#### **5.05 Water Enterprise Operation and Maintenance Expenses**

There are five categories of Water Enterprise Operation and Maintenance Expenses, described below:

##### **A. Source of Supply**

1. Description: This category consists of the costs of labor, supervision and engineering; materials and supplies; and other expenses incurred in the operation and maintenance of collecting and impounding reservoirs, dams, wells and other water supply facilities located outside San Francisco; watershed protection; water supply planning; and the purchase of water.

2. Allocation: Direct Retail expenses, including water supply planning for Retail operations (such as City Retail water conservation programs), will be assigned to the Retail Customers. Regional expenses will be allocated between Retail Customers and Wholesale Customers on the basis of Proportional Annual Use. Direct Wholesale expenses will be assigned to the Wholesale Customers. (As of the Effective Date there are no Direct Wholesale expenses in the Source of Supply category.)

##### **B. Pumping**

1. Description: This category consists of the costs of labor, supervision and engineering; materials and supplies; and other expenses incurred in the operation and maintenance of water pumping plants, ancillary structures and equipment and surrounding grounds; and fuel and power purchased for pumping water.

2. Allocation: Direct Retail expenses will be assigned to the Retail Customers. Regional expenses will be allocated between Retail Customers and Wholesale Customers on the basis of Proportional Annual Use. Direct Wholesale expenses will be assigned to the Wholesale Customers. (As of the Effective Date there are no Direct Wholesale expenses in the Pumping category.)

##### **C. Treatment**

1. Description: This category consists of the costs of labor, supervision and engineering; materials and supplies and other expenses incurred in the operation and

maintenance of water treatment plants and drinking water quality sampling and testing. The cost of water quality testing will not include expenses incurred on behalf of the Wastewater Enterprise. Any remaining costs, after adjusting for the Wastewater Enterprise, will be reduced by the amount of revenue received for laboratory analyses of any type performed for agencies, businesses and/or individuals other than the Water and Hetch Hetchy Enterprises.

2. Allocation: Direct Retail expenses will be assigned to the Retail Customers. Regional expenses will be allocated between Retail Customers and Wholesale Customers on the basis of Proportional Annual Use. Direct Wholesale expenses will be assigned to the Wholesale Customers. (As of the Effective Date there are no Direct Wholesale expenses in the Treatment category.)

**D. Transmission and Distribution**

1. Description: This category consists of the cost of labor, supervision and engineering; materials and supplies; and other expenses incurred in the operation and maintenance of transmission and distribution pipelines, appurtenances, meters (other than those expenses payable by individual Wholesale Customers pursuant to Section 5.10.C.3), distribution reservoirs storing treated water, craft shops and auto shops servicing vehicles used for operation and maintenance of the Regional Water System rather than for Direct Retail facilities, and miscellaneous facilities related to the transmission and distribution of water.

2. Allocation: Direct Retail Transmission and Distribution expenses will be assigned to the Retail Customers. Regional Transmission and Distribution expenses will be allocated between Retail and Wholesale Customers on the basis of Proportional Annual Use. Expenses incurred for the operation and maintenance of three terminal reservoirs, i.e., Sunset Reservoir (North and South Basins), University Mound Reservoir (North and South Basins), and Merced Manor Reservoir, as well as transmission pipelines delivering water to them, are classified as Regional expenses notwithstanding the location of the reservoirs within San Francisco. Direct Wholesale expenses will be assigned to the Wholesale Customers. (As of the Effective Date the only Direct Wholesale expenses in the Transmission and Distribution category are associated with the Palo Alto pipeline.)

**E. Customer Services**

1. Description: This category consists of labor; materials and supplies; and other expenses incurred for meter reading, customer record keeping, and billing and collection for the Water Enterprise.

2. Allocation: Customer Services expenses will be allocated among the Water Enterprise, the Wastewater Enterprise, and Hetch Hetchy Enterprise in proportion to the time spent by employees in Customer Services for each operating department/enterprise. The Water Enterprise's share of Customer Services expense will be allocated 98 percent to the Retail Customers and two percent to the Wholesale Customers, as illustrated on Attachment N-2, Schedule 1.

**5.06 Water Enterprise Administrative and General Expenses**

Administrative and General expenses consist of the Water Enterprise's share of the cost of general government distributed through the full-cost Countywide Cost Allocation Plan, the services of SFPUC support bureaus, Water Enterprise administrative and general expenses that cannot be directly assigned to a specific operating and maintenance category, and the cost of the Compliance Audit. These four subcategories, and the method by which costs in each are to be calculated and allocated, are as follows:

**A. Countywide Cost Allocation Plan**

1. Description: This subcategory consists of the Water Enterprise's share of the costs of San Francisco general government and other City central service departments which are not directly billed to the Water Enterprise or other operating departments. All San Francisco operating departments are assigned a prorated share of these costs through the full-cost Countywide Cost Allocation Plan (COWCAP) prepared annually by the San Francisco Controller.

2. Allocation: The Water Enterprise's assigned share of central government costs as shown in the annual full-cost COWCAP prepared by the San Francisco Controller, will be allocated between Retail Customers and Wholesale Customers on the basis of the composite percentage of the allocated expenses in the five categories of operation and maintenance expense described in Section 5.05. The composite wholesale percentage shown on Attachment N-2, Schedule 1 is 42.07 percent, derived by dividing the wholesale share of

Operation and Maintenance expenses (\$46,573,883) by total Operation and Maintenance expenses (\$110,700,133).

**B. Services of SFPUC Bureaus**

1. Description: This subcategory consists of the support services provided to the Water Enterprise by the SFPUC Bureaus, which presently consist of the General Manager's Office, Business Services, External Affairs, and Infrastructure Bureau. Business Services presently includes Financial Services, Information Technology Services, Human Resource Services, Fleet Management, and Customer Services.

2. Allocation: There are three steps involved in determining the Wholesale Customers' share of SFPUC Bureau costs.

a. Step One: Bureau expenses which have either been recovered separately or which provide no benefit to Wholesale Customers will be excluded. Examples of Bureau expenses recovered separately include (1) Customer Services expenses, which are recovered as provided in Section 5.05.E, and (2) Infrastructure expenses, which are assigned to individual projects and capitalized. An example of a Bureau expense that provides no benefit to Wholesale Customers is Information Technology Services expenses for support of the San Francisco Municipal Railway. In addition, the SFPUC will continue its practice of assigning City Attorney Office expenses charged to the General Manager's Office for projects or lawsuits that relate to only one enterprise directly to that enterprise. For example, costs related to a lawsuit involving the Wastewater Enterprise will not be assigned to the Water Enterprise.

b. Step Two: Bureau expenses adjusted as provided in Step One will be allocated among the Water Enterprise, the Wastewater Enterprise and the Hetch Hetchy Enterprise on the basis of the actual salaries of employees in each enterprise or department, as illustrated on Attachment N-2, Schedule 7.

c. Step Three: The amount allocated to the Water Enterprise through Step Two will be allocated between Retail Customers and Wholesale Customers on the basis of Proportional Annual Use.

**C. Water Enterprise Administrative and General**

1. Description: This category includes expenses incurred by the Water Enterprise that are not readily assignable to specific operating divisions. This category includes the following expenses:

a. Water Administration: This includes the costs of labor and other expenses of the administrative section of the Water Enterprise, supervision and engineering expenses, professional services, travel and training, equipment purchases, and materials and supplies not directly assignable to a specific operating unit.

b. Services Provided by Other City Departments: This includes charges of other San Francisco departments directly billed to the Water Enterprise administration by other San Francisco departments for services ordered by the Water Enterprise, such as legal services, risk management, telecommunications, employee relations, purchasing, mail services, and workers compensation claims paid.

c. Litigation and Claims Paid: This includes charges incurred for attorney services and claims and judgments paid in litigation arising from the operation of the Water Enterprise.

2. Allocation: In each of these three subcategories, expenses that benefit only Retail Customers will be excluded. For example, the cost of claims and judgments resulting from a break in or leak from pipelines or reservoirs in the Retail Service Area (with the exception of the three terminal reservoirs and pipelines delivering water to them) will be assigned to the Retail Customers. Remaining Water Enterprise Administrative and General expenses will be allocated between Retail Customers and Wholesale Customers on the basis of the composite percentage of allocated operation and maintenance expense categories described in Section 5.05.

**D. Compliance Audit.** The cost of the Compliance Audit described in Section 7.04 will be assigned 50 percent to the Retail Customers and 50 percent to the Wholesale Customers.

### **5.07 Water Enterprise Property Taxes**

A. Description: This category consists of property taxes levied against property owned by San Francisco located in Alameda, San Mateo and Santa Clara counties and used and managed by the SFPUC.

B. Allocation: All property taxes paid, net of (1) reimbursements received from lessees and permit holders, and (2) refunds from the taxing authority, are Regional expenses. Net property taxes will be allocated between Retail Customers and Wholesale Customers on the basis of Proportional Annual Use.

### **5.08 Hetch Hetchy Enterprise Expenses**

A. **Introduction.** There are two steps involved in determining the amount of the Wholesale Customers' share of Hetch Hetchy Enterprise expenses.

1. The first step is to determine the Water Enterprise's share of Hetch Hetchy Enterprise operation expenses, maintenance expenses, administrative and general expenses, and property taxes.

2. The second step is to determine the Wholesale Customers' share of expenses allocable to the Water Enterprise.

#### **B. Determination of the Water-Related Portion of Hetch Hetchy Enterprise Expenses**

1. **Operation and Maintenance Expenses:** This category consists of the cost of labor, materials and supplies, and other expenses incurred in operating and maintaining Hetch Hetchy Enterprise physical facilities.

a. **Description:** Expenses associated exclusively with the production and distribution of hydroelectric power (e.g., generating plants and power transmission lines and towers, transformers and associated electric equipment, purchased power, wheeling charges, rental of power lines, etc.) are categorized as Power-Only and are allocated to power. Expenses associated exclusively with the operation and maintenance of facilities that serve only the water function (e.g., water transmission pipelines and aqueducts, activities related to compliance with federal and state drinking water quality laws, etc.) are categorized as Water-Only and are allocated entirely to water. Expenses associated with the operation and maintenance of facilities that serve both the water and power functions (e.g., dams, security

programs, etc.) are categorized as Joint and are reallocated as 55 percent Power-Related and 45 percent Water-Related.

2. Administrative and General Expenses: There are three subcategories of Hetch Hetchy Enterprise Administrative and General expenses.

a. Full-Cost Countywide Cost Allocation Plan: This subcategory consists of the cost of San Francisco general government and other City central service departments which are not directly billed to operating departments but allocated through the full-cost Countywide Cost Allocation Plan described in Section 5.06.A. Costs in this subcategory are classified as Joint, and are reallocated as 55 percent Power-Related and 45 percent Water-Related.

b. SFPUC Bureau Costs: This subcategory consists of the expenses described in Section 5.06.B. One hundred percent of Customer Services expenses allocated to the Hetch Hetchy Enterprise are categorized as Power-Only. The remaining amount of Bureau expenses allocated to the Hetch Hetchy Enterprise pursuant to Section 5.06.B will be reallocated between power and water in proportion to the salaries of Hetch Hetchy Enterprise employees assigned to each function as shown on Attachment N-2, Schedule 7.1.

c. Other Administrative and General: This subcategory includes payments to the United States required by the Act, labor, supervision and engineering and other costs not readily assignable to a specific operation or maintenance function or program. Costs related to power administration (such as long range planning and policy analysis for energy development, administration of power contracts, and administration of work orders to City departments for energy services) are Power-Only costs. Costs related to water administration (such as legal and professional services for the protection of the City's water rights) are Water-Only costs and will be assigned to the Water Enterprise. Costs related to both power administration and water administration (such as general administration, office rents, office materials and supplies, and services of other City departments benefitting to both power and water are Joint administrative and general costs and are reallocated as 55 percent Power-Related and 45 percent Water-Related.

3. Property Taxes. This category consists of property taxes levied against property owned by San Francisco in Tuolumne, Stanislaus, San Joaquin, and Alameda counties and operated and managed by the Hetch Hetchy Enterprise.



Allocation: Property taxes are classified as Joint costs. They will be reallocated as 55 percent Power-Related and 45 percent Water-Related.

**C. Calculation of Wholesale Customers' Share of Hetch Hetchy Enterprise Expenses.** The Water Enterprise's share of Hetch Hetchy Enterprise expenses consist of 100 percent of Water-Only expenses and the Water-Related portion (45%) of Joint expenses.

The Wholesale Customers' share of the sum of the Water Enterprise's share of Hetch Hetchy Enterprise expenses determined under subsection B shall be calculated by multiplying that dollar amount by Adjusted Proportional Annual Use.

### **5.09 Hetch Hetchy Enterprise Capital Costs**

**A. Introduction.** Wholesale Customers are also allocated a share of Hetch Hetchy Enterprise capital costs.

**B. Components of Capital Costs.** The components of Hetch Hetchy Enterprise capital costs are as follows:

1. **Existing Assets Cost Recovery.** The Wholesale Customers' repayment of their share of Hetch Hetchy Existing Assets (Water-Only and the Water-Related portion [45 percent] of Joint assets) is shown on Attachment K-4 accompanying Section 5.03.

2. **Debt Service on New Assets.** The Water Enterprise will be assigned 100 percent of Net Annual Debt Service attributable to acquisition and construction of New Hetch Hetchy Enterprise assets that are Water-Only and the Water-Related portion (45 percent) of Net Annual Debt Service on New Hetch Hetchy Enterprise Joint assets. The provisions of Section 5.04.A apply to debt service on New Hetch Hetchy Enterprise assets.

3. **Revenue-Funded Capital Additions.** The Water Enterprise will be assigned 100 percent of capital expenditures from revenues for New Hetch Hetchy Enterprise assets that are Water-Only and the Water-Related portion (45 percent) of such expenditures for new Hetch Hetchy Enterprise Joint assets. The provisions of Section 5.04.B apply to the payment of New revenue-funded Hetch Hetchy Enterprise assets.

**C. Calculation of Wholesale Customers' Share of Hetch Hetchy Enterprise Capital Costs.** The Wholesale Customers' share of the Net Annual Debt Service and revenue funded capital expenditures determined under subsections B.2 and 3 shall be calculated by multiplying that dollar amount by Adjusted Proportional Annual Use.

## 5.10 Additional Agreements Related to Financial Issues

**A. Wholesale Customers Not Entitled to Certain Revenues.** The Wholesale Customers have no entitlement to any of the following sources of revenue to the SFPUC.

1. Revenues from leases or sales of SFPUC real property.
2. Revenues from the other utility services such as the sale of electric power, natural gas and steam.
3. Revenues from the sale of water to customers and entities other than the Wholesale Customers.
4. Revenues earned from the investment of SFPUC funds other than funds contributed by the Wholesale Customers to the Wholesale Revenue Coverage Reserve described in Section 6.06 or the Wholesale Capital Fund described in Section 6.08. Wholesale Customers are also entitled to the benefit of earnings on proceeds of Indebtedness (through expenditure on New Regional Assets and /or application to Debt Service) and to interest on the Balancing Account as provided in Section 6.05.B.
5. Revenues not related to the sale of water.

**B. Wholesale Customers Not Charged with Certain Expenses.** The Wholesale Customers will not be charged with any of the following expenses:

1. Capital costs for assets constructed or acquired prior to July 1, 1984 other than Existing Asset costs that are repaid pursuant to Section 5.03.
2. Expenses incurred by the SFPUC for generation and distribution of electric power, including Hetch Hetchy Enterprise Power-Only expenses and the Power-Related share of Hetch Hetchy Enterprise Joint expenses. An exception to this is Regional energy costs incurred by the Water Enterprise, for which Wholesale Customers are charged on the basis of Proportional Annual Use.
3. Expenses incurred by SFPUC in providing water to Retail Customers.
4. Expenses associated with the SFPUC's accruals or allocations for uncollectible Retail Water accounts.

5. Attorneys' fees and costs incurred by the Wholesale Customers that a court of competent jurisdiction orders San Francisco to pay as part of a final, binding judgment against San Francisco as provided in Section 8.03.B.2.

6. Any expenses associated with funding any reserves (other than the required Wholesale Revenue Coverage Reserve described in Section 6.06) accrued and not anticipated to be paid within one year unless such reserve is established by mutual agreement of the SFPUC and BAWSCA.

7. Any expenses accrued in respect to pending or threatened litigation, damage or personal injury claims or other loss contingencies unless projected to be paid within one year. Otherwise, such expenses will be charged to the Wholesale Customers when actually paid.

8. Any expense associated with installing, relocating, enlarging, removing or modifying meters and service connections at the request of an individual Wholesale Customer.

9. The Retail Customers' portion of any Environmental Enhancement Surcharges imposed to enforce the Interim Supply Limitation set forth in Section 4.04.

**C. Revenues Not Credited to Payment of Wholesale Revenue Requirement.**

The following payments by Wholesale Customers, individually or collectively, are not credited as Wholesale revenues for purposes of Section 6.05.B:

1. Payments by individual Wholesale Customers of the Environmental Enhancement Surcharge imposed to enforce the Interim Supply Limitation set forth in Section 4.04.

2. Payments of attorneys' fees and costs incurred by San Francisco that a court of competent jurisdiction orders the Wholesale Customers to pay as part of a final, binding judgment against the Wholesale Customers, as provided in Section 8.03.B.3.

3. Payments by individual Wholesale Customers for installation, relocation, enlargement, removal or modification of meters and service connections requested by, and charged to, a Wholesale Customer.

4. Payments applied to the amortization of the ending balance in the balancing account under the 1984 Agreement, pursuant to Section 6.05.A.

5. Payments of the Water Management Charge which are delivered to BAWSCA pursuant to Section 3.06.

6. Payments directed to the Wholesale Revenue Coverage Reserve pursuant to Section 6.06.

7. Prepayments authorized by Sections 5.03.C and 5.03.F.

**D. Other**

1. The Wholesale Customers will receive a proportional benefit from funds received by the SFPUC from (a) governmental grants, rebates, reimbursements or other subventions, (b) private-sector grants for Regional capital or operating purposes of the Water Enterprise and the Water-Only and Water-related portion of Joint Hetch Hetchy Water Enterprise expenses, or (c) a SFPUC use of taxable bonds.

2. The Wholesale Customers will receive a proportionate benefit from recovery of damages, including liquidated damages, by SFPUC from judgments against or settlements with contractors, suppliers, sureties, etc., related to Regional Water System projects and the Water-Only and Water-Related portion of Joint Hetch Hetchy Enterprise projects.

3. The SFPUC will continue to charge Wholesale Customers for assets acquired or constructed with proceeds of Indebtedness on which Wholesale Customers paid Debt Service during the Term of this Agreement on the “cash” basis (as opposed to the “utility” basis) after the expiration or earlier termination of this Agreement. The undertaking in this Section 5.10.D.3 will survive the expiration or earlier termination of this Agreement.

## **Article 6. Integration of Wholesale Revenue Requirement with SFPUC Budget Development and Rate Adjustments**

### **6.01 General**

A. The purpose of the allocation bases set forth in Article 5 is to determine the Wholesale Revenue Requirement for each fiscal year. The Wholesale Revenue Requirement can only be estimated in advance, based on projected costs and water deliveries. These projections are used to establish water rates applicable to the Wholesale Customers.

B. After the close of each fiscal year, the procedures described in Article 7 will be used to determine the actual Wholesale Revenue Requirement for that year, based on actual costs incurred, allocated according to the provisions of Article 5, and using actual water delivery data. The amount properly allocated to the Wholesale Customers shall be compared to the amount billed to the Wholesale Customers for the fiscal year, other than those identified in Section 5.10.C. The difference will be entered into a balancing account to be charged to, or credited to, the Wholesale Customers, as appropriate.

C. The balancing account shall be managed as described in Section 6.05.

### **6.02 Budget Development**

The SFPUC General Manager will send a copy of the proposed SFPUC budget to BAWSCA at the same time as it is sent to the Commission. In addition, a copy of materials submitted to the Commission for consideration at meetings prior to the meeting at which the overall SFPUC budget is considered (including (a) operating budgets for the Water Enterprise and the Hetch Hetchy Enterprise, (b) budgets for SFPUC Bureaus, and (c) capital budgets for the Water Enterprise and the Hetch Hetchy Enterprise) will also be sent to BAWSCA concurrently with their submission to the Commission.

### **6.03 Rate Adjustments**

A. **Budget Coordinated Rate Adjustments**. Adjustments to the rates applicable to the Wholesale Customers shall be coordinated with the budget development process described in this section except to the extent that Sections 6.03.B and 6.03.C authorize emergency rate increases and drought rate increases, respectively.

If the SFPUC intends to increase wholesale water rates during the ensuing fiscal year, it will comply with the following procedures:

1. Adjustments to the wholesale rates will be adopted by the Commission at a regularly scheduled meeting or at special meeting, properly noticed, called for the purpose of adjusting rates or for taking any other action under the jurisdiction of the Commission.

2. The SFPUC will send a written notice by mail or electronic means to each Wholesale Customer and to BAWSCA of the recommended adjustment at least thirty (30) days prior to the date of the meeting at which the Commission will consider the proposed adjustment. The notice will include the date, time and place of the Commission meeting.

3. The SFPUC shall prepare and provide to each Wholesale Customer and to BAWSCA the following materials: (a) a table illustrating how the increase or decrease in the Wholesale Revenue Requirement and wholesale rates were calculated, substantially in the form of Attachment N-1, (b) a schedule showing the projected expenses included in the Wholesale Revenue Requirement for the fiscal year for which the rates are being proposed, and supporting materials, substantially in the form of Attachment N-2, and (c) a schedule showing projected water sales, Wholesale Revenue Requirements and wholesale rates for the fiscal year for which rates are being set and the following four years, substantially in the form of Attachment N-3. These materials will be included with the notification required by Section 6.03.A.2.

4. Rate adjustments will be effective no sooner than thirty (30) days after adoption of the wholesale rate by the Commission.

5. San Francisco will use its best efforts to provide the Wholesale Customers with the information described above. San Francisco's failure to comply with the requirements set forth in this section shall not invalidate any action taken by the Commission (including, but not limited to, any rate increase or decrease adopted). In the event of such failure, the Wholesale Customers may either invoke arbitration, as set forth in Section 8.01, or seek injunctive relief, to compel San Francisco to remedy the failure as soon as is reasonably practical, and San Francisco shall be free to oppose the issuance of the requested judicial or arbitral relief on any applicable legal or equitable basis. The existence of this right to resort to arbitration shall not be deemed to preclude the right to seek injunctive relief.

6. Because delays in the budget process or other events may cause San Francisco to defer the effective date of Wholesale Customer rate adjustments until after the beginning of San Francisco's fiscal year, nothing contained in this Agreement shall require San Francisco to make any changes in the water rates charged to Wholesale Customers effective at

the start of San Francisco's fiscal year or at any other specific date. Nothing in the preceding sentence shall excuse non-compliance with the provisions of Section 6.02 and this section.

**B. Emergency Rate Increases.** The Commission may adjust the Wholesale Customers' rates without complying with the requirements of Section 6.03.A in response to an Emergency that damages the Regional Water System and disrupts San Francisco's ability to maintain normal deliveries of water to Retail and Wholesale Customers. In such an Emergency, the Commission may adopt an emergency rate surcharge applicable to Wholesale Customers without following the procedures set forth in this section, provided that any such rate surcharge imposed by the Commission shall be applicable to both Retail and Wholesale Customers and incorporate the same percentage increase for all customers. Any emergency rate surcharge adopted by the Commission shall remain in effect only until the next-budget coordinated rate-setting cycle.

**C. Drought Rates.** If the Commission declares a water shortage emergency under Water Code Section 350, implements the Tier 1 Shortage Plan (Attachment H) described in Section 3.11.C, and imposes drought rates on Retail Customers, it may concurrently adjust wholesale rates independently of coordination with the annual budget process. Those adjustments may be designed to encourage water conservation and may constitute changes to the structure of the rates within the meaning of Section 6.04. The parties agree, however, that, in adopting changes in rates in response to a declaration of water shortage emergency, the Commission shall comply with Section 6.03.A.1 and 2 but need not comply with Section 6.04.B. Drought Rate payments and payments of excess use charges levied in accordance with the Tier 1 Shortage Plan described in Section 3.11.C constitute Wholesale Customer Revenue and count towards the Wholesale Revenue Requirement. The SFPUC may use these revenues to purchase additional water for the Wholesale Customers from the State Drought Water Bank or other willing seller.

#### **6.04 Rate Structure**

A. This Agreement is not intended and shall not be construed to limit the Commission's right (a) to adjust the structure of the rate schedule applicable to the Wholesale Customers (i.e., the relationship among the several charges set out therein) or (b) to add, delete, or change the various charges which make up the rate schedule, provided that neither such charges nor the structure of the rate schedule(s) applicable to the Wholesale Customers shall be arbitrary, unreasonable, or unjustly discriminatory as among said customers. The

SFPUC will give careful consideration to proposals for changes in the rate schedule made jointly by the Wholesale Customers but, subject to the limitations set out above, shall retain the sole and exclusive right to determine the structure of the rate schedule.

B. If the SFPUC intends to recommend that the Commission adopt one or more changes to the structure of wholesale rates (currently set forth in SFPUC Rate Schedule W-25), it shall prepare and distribute to the Wholesale Customers and BAWSCA a report describing the proposed change(s), the purpose(s) for which it/they are being considered, and the estimated financial effect on individual Wholesale Customers or classes of customers. Wholesale Customers may submit comments on the report to the SFPUC for sixty (60) days after receiving the report. The SFPUC will consider these comments and, if it determines to recommend that the Commission adopt the change(s), as described in the report or as modified in response to comments, the SFPUC General Manager shall submit a report to the Commission recommending specific change(s) in the rate structure. Copies of the General Manager's report shall be sent to all Wholesale Customers and BAWSCA at least thirty (30) days prior to the Commission meeting at which the changes will be considered.

C. The SFPUC may recommend, and the Commission may adopt, changes in the structure of wholesale rates at any time. However, the new rate schedule implementing these changes will become effective at the beginning of the following fiscal year.

#### **6.05 Balancing Account**

A. **Balancing Account Established Under 1984 Agreement.** The amount of credit in favor of San Francisco as of the expiration of the term of 1984 Agreement (June 30, 2009) is not known with certainty as of preparation and execution of this Agreement. It will not be known with certainty until the Compliance Audit for FY 2008-09 is completed and disputes, if any, that the Wholesale Customers or the SFPUC may have with the calculation of the Suburban Revenue Requirement for that fiscal year and for previous fiscal years have been settled or decided by arbitration.

The parties anticipate that the amount of the credit in favor of San Francisco as of June 30, 2009 may be within the range of \$15 million to \$20 million.

In order to reduce the credit balance due San Francisco under the 1984 Agreement in an orderly manner, while avoiding unnecessary fluctuations in wholesale rates, the parties agree to implement the following procedure.



1. In setting wholesale rates for FY 2009-10, SFPUC will include a balancing account repayment of approximately \$2 million.

2. In setting wholesale rates for FY 2010-11 and following years, SFPUC will include a balancing account repayment of not less than \$2 million and not more than \$5 million annually until the full amount of the balance due, plus interest at the rate specified in Section 6.05.B, is repaid.

3. The actual ending balance as of June 30, 2009 will be determined, by the parties' agreement or arbitral ruling, after the Compliance Audit report for FY 2008-09 is delivered to BAWSCA. That amount, once determined, will establish the principal to be amortized through subsequent years' repayments pursuant to this Section 6.05.A.

**B. Balancing Account Under This Agreement**

1. Operation. After the close of each fiscal year, the SFPUC will compute the costs allocable to the Wholesale Customers for that fiscal year pursuant to Article 5, based on actual costs incurred by the SFPUC and actual amounts of water used by the Wholesale Customers and the Retail Customers. That amount will be compared to the amounts billed to the Wholesale Customers for that fiscal year (including any Excess Use Charges, but excluding revenues described in Section 5.10.C). The difference will be posted to a "balancing account" as a credit to, or charge against, the Wholesale Customers. Interest shall also be posted to the balancing account calculated by multiplying the amount of the opening balance by the average net interest rate, certified by the Controller as earned in the San Francisco Treasury for the previous fiscal year on the San Francisco County Pooled Investment Account. Interest, when posted, will carry the same mathematical sign (whether positive or negative) as carried by the opening balance. The amount posted to the balancing account in each year shall be added to, or subtracted from, the balance in the account from previous years. The calculation of the amount to be posted to the balancing account shall be included in the report prepared by the SFPUC pursuant to Section 7.02.

The opening balance for fiscal year 2009-10 shall be zero.

2. Integration of Balancing Account with Wholesale Rate Setting Process. If the amount in the balancing account is owed to the Wholesale Customers (a positive balance), the SFPUC shall take it into consideration in establishing wholesale rates. However, the SFPUC need not apply the entire amount to reduce wholesale rates for the immediately ensuing

year. Instead, the SFPUC may prorate a positive ending balance over a period of up to three successive years in order to avoid fluctuating decreases and increases in wholesale rates.

a. If a positive balance is maintained for three successive years and represents 10 percent or more of the Wholesale Revenue Requirement for the most recent fiscal year, the SFPUC shall consult with BAWSCA as to the Wholesale Customers' preferred application of the balance. The Wholesale Customers shall, through BAWSCA, direct that the positive balance be applied to one or more of the following purposes: (a) transfer to the Wholesale Revenue Coverage Reserve, (b) amortization of any remaining negative balance from the ending balancing account under the 1984 Agreement, (c) prepayment of the existing asset balance under Section 5.03, (d) water conservation or water supply projects administered by or through BAWSCA, (e) immediate reduction of wholesale rates, or (f) continued retention for future rate stabilization purposes. In the absence of a direction from BAWSCA, the SFPUC shall continue to retain the balance for rate stabilization in subsequent years.

b. If the amount in the balancing account is owed to the SFPUC (a negative balance), the SFPUC shall not be obligated to apply all or any part of the negative balance in establishing wholesale rates for the immediately ensuing year. Instead, the SFPUC may prorate the negative balance in whole or in part over multiple years in order to avoid fluctuating increases and decreases in wholesale rates.

#### **6.06 Wholesale Revenue Coverage Reserve**

A. The SFPUC may include in wholesale rates for any fiscal year an additional dollar amount ("Wholesale Revenue Coverage"), which for any fiscal year shall equal the following:

1. The lesser of (i) 25% of the Wholesale Customers' share of Net Annual Debt Service for that fiscal year determined as described in Section 5.04.A, or (ii) the amount necessary to meet the Wholesale Customers' proportionate share of Debt Service coverage required by then-current Indebtedness for that fiscal year, minus

2. A credit for (i) the actual amounts previously deposited in the "Wholesale Revenue Coverage Reserve" (as defined in subsection B below), (ii) accrued interest on the amounts on deposit in the Wholesale Revenue Coverage Reserve, and (iii) an amount equal to any additional interest that would have accrued on the actual amounts previously deposited in

the Wholesale Revenue Coverage Reserve assuming no withdrawals had been made therefrom.

B. During each fiscal year, the SFPUC will set aside and deposit that portion of revenue equal to Wholesale Revenue Coverage into a separate account that the SFPUC will establish and maintain, to be known as the "Wholesale Revenue Coverage Reserve." Deposits into the Wholesale Revenue Coverage Reserve shall be made no less frequently than monthly. The Wholesale Revenue Coverage Reserve shall be credited with interest at the rate specified in Section 6.05.B. The SFPUC may use amounts in the Wholesale Revenue Coverage Reserve for any lawful purpose. Any balance in the Wholesale Revenue Coverage Reserve in excess of the Wholesale Revenue Coverage amount as of the end of any fiscal year (as calculated in subsection 6.06(A) above) shall be applied as a credit against wholesale rates in the immediately following fiscal year unless otherwise directed by BAWSCA.

C. Within 180 days following the later of expiration of the Term or final payment of Debt Service due on Indebtedness issued during the Term to which Wholesale Customers were contributing, SFPUC shall rebate to the Wholesale Customers an amount equal to the Wholesale Revenue Coverage amount in effect for the fiscal year during which the Term expires or the final payment of Debt Service on Indebtedness is made based on each Wholesale Customer's Proportional Annual Use in the fiscal year during which the Term expires or the final payment of debt service on Indebtedness is made.

D. SFPUC shall provide a schedule of debt issuance (with assumptions), and the Wholesale Customers' share of Net Annual Debt Service (actual and projected) expected to be included in wholesale rates starting in 2009-10 through the expected completion of the WSIP. The schedule is to be updated annually prior to rate setting. If estimated Debt Service is used in rate setting, the SFPUC must be able to demonstrate that the Water Enterprise revenues will be sufficient to meet the additional bonds test for the proposed bonds and rate covenants for the upcoming year.

E. Conditions in the municipal bond market may change from those prevailing in 2009. If, prior to expiration of the Term, the SFPUC determines that it would be in the best financial interest of both Retail Customers and Wholesale Customers of the Regional Water System for the Debt Service coverage requirement to be increased in one or more series of proposed new Indebtedness above 1.25%, or for the coverage covenant to be strengthened in

other ways, it will provide a written report to BAWSCA. The report will contain (1) a description of proposed covenant(s) in the bond indenture; (2) an explanation of how savings are expected to be achieved (e.g., increase in the SFPUC's credit rating over the then-current level; ability to obtain credit enhancement, etc.); (3) the estimated all-in true interest cost savings; (4) a comparison of the Wholesale Revenue Requirements using the Debt Service coverage limitation in subsection A and under the proposed methodology; and (5) a comparison of the respective monetary benefits expected to be received by both Retail and Wholesale Customers. The SFPUC and BAWSCA agree to meet and confer in good faith about the proposed changes.

F. Any increase in Debt Service coverage proposed by the SFPUC shall be commensurate with Proportional Water Use by Retail and Wholesale Customers. If the SFPUC demonstrates that an increase in Debt Service coverage will result in equivalent percentage reductions in total Wholesale and Retail Debt Service payments over the life of the proposed new Indebtedness, based on Proportional Water Use, BAWSCA may agree to a modification of the Wholesale Revenue Coverage requirement in subsection A. If BAWSCA does not agree to a proposed modification in coverage requirements in the covenants for new Indebtedness, SFPUC may nevertheless proceed with the modification and the issuance of new Indebtedness. Any Wholesale Customer, or BAWSCA, may challenge an increase in the Wholesale Revenue Requirement resulting from the modification in Debt Service coverage through arbitration as provided in Section 8.01.A. If the arbitrator finds that the increase in Debt Service coverage (1) did not and will not result in equivalent percentage reductions in total Wholesale and Retail Debt Service payments over the life of the proposed new Indebtedness, based on Proportional Water Use, or (2) was not commensurate with Proportional Water Use, the arbitrator may order the Wholesale Revenue Requirement to be recalculated both retrospectively and prospectively to eliminate the differential impact to Wholesale or Retail Customers, subject to the limitation in Section 8.01.C.

#### **6.07 Working Capital Requirement**

A. The SFPUC maintains working capital in the form of unappropriated reserves for the purpose of bridging the gap between when the SFPUC incurs operating expenses required to provide service and when it receives revenues from its Retail and Wholesale Customers. The Wholesale Customers shall fund their share of working capital as part of the annual Wholesale Revenue Requirement calculation. The amount of wholesale working capital for which the Wholesale Customers will be responsible will be determined using the 60-day standard formula approach.

B. Applying this approach, annual wholesale working capital equals one-sixth of the wholesale allocation of operation and maintenance, administrative and general, and property tax expenses for the Water and Hetch Hetchy Enterprises. Wholesale working capital shall be calculated separately for the Water and Hetch Hetchy Enterprises.

C. Each month, the sum of the Water Enterprise and Hetch Hetchy Enterprise working capital components will be compared with the ending balance in the Wholesale Revenue Coverage Reserve to determine if the Wholesale Customers provided the minimum required working capital. If the Wholesale Revenue Coverage Reserve is greater than the total Water Enterprise and Hetch Hetchy Enterprise working capital requirement, the Wholesale Customers will have provided their share of working capital. If the Wholesale Revenue Coverage Reserve is less than the total Water Enterprise and Hetch Hetchy Enterprise working capital requirement, the Wholesale Customers will be charged interest on the difference, which will be included in the adjustment to the Balancing Account under Section 6.05.B for the subsequent fiscal year.

#### **6.08 Wholesale Capital Fund**

A. The SFPUC currently funds revenue-funded capital projects through annual budget appropriations that are included in rates established for that fiscal year and transferred to a capital project fund from which expenditures are made. Consistent with the San Francisco Charter and Administrative Code, the SFPUC appropriates funds in advance of construction in order to maintain a positive balance in the capital project fund. The capital project fund also accrues interest and any unspent appropriations in excess of total project costs. It is the SFPUC's practice to regularly monitor the capital project fund balance to determine whether a surplus has accumulated, which can be credited against the next fiscal year's capital project appropriation.

B. The SFPUC shall establish a comparable Wholesale Revenue-Funded Capital Fund (Wholesale Capital Fund) to enable the Wholesale Customers to fund the wholesale share of revenue-funded New Regional Assets. The Wholesale Capital Fund balance is zero as of July 1, 2009. The SFPUC may include in wholesale rates for any fiscal year an amount equal to the wholesale share of the SFPUC's appropriation for revenue funded New Regional Assets for that year, which sum will be credited to the Wholesale Capital Fund. The wholesale share of other sources of funding, where legally permitted and appropriately accounted for under GAAP,

will also be credited to the Wholesale Capital Fund, together with interest earnings on the Wholesale Capital Fund balance.

C. The SFPUC will expend revenues appropriated and transferred to the Wholesale Capital Fund only on New Regional Assets. The annual capital appropriation included in each fiscal year's budget will be provided to BAWSCA in accordance with Section 6.02 and will take into account the current and projected balance in the Wholesale Capital Fund, as well as current and projected unexpended and unencumbered surplus, as shown on attachment M-1, which will be prepared by the SFPUC each year.

D. Commencing on November 30, 2010 and thereafter in each fiscal year during the Term, the SFPUC will also provide an annual report to BAWSCA on the status of individual revenue-funded New Regional Assets, substantially in the form of Attachment M-2.

E. In order to prevent the accumulation of an excessive unexpended and unencumbered surplus in the Wholesale Capital Fund, the status of the fund balance will be reviewed through the Compliance Audit at five-year intervals, commencing in FY 2014-15. Any excess fund balance (i.e., an accumulated unexpended, unencumbered amount in excess of ten percent (10%) of the wholesale share of total capital appropriations for New Regional Assets during the five preceding years) will be transferred to the credit of the Wholesale Customers to the Balancing Account described in Section 6.05. Attachment M-3 illustrates the operation of this review process, covering FY 2009-10 through FY 2013-14 and FY 2014-15 through 2018-19.

F. Three years prior to the end of the Term, the SFPUC and BAWSCA will discuss the disposition of the Wholesale Capital Fund balance at the end of the Term. Absent agreement, any balance remaining in the Wholesale Capital Fund at the end of the Term shall be transferred to the Balancing Account, to the credit of the Wholesale Customers.

## Article 7. Accounting Procedures; Compliance Audit

### 7.01 SFPUC Accounting Principles, Practices

**A. Accounting Principles.** San Francisco will maintain the accounts of the SFPUC and the Water and Hetch Hetchy Enterprises in conformity with Generally Accepted Accounting Principles. San Francisco will apply all applicable pronouncements of the Governmental Accounting Standards Board (GASB) as well as statements and interpretations of the Financial Accounting Standards Board and Accounting Principles Board opinions issued on or before March 30, 1989, unless those pronouncements or opinions conflict with GASB pronouncements.

**B. General Rule.** San Francisco will maintain the accounting records of the SFPUC and the Water and Hetch Hetchy Enterprises in a format and level of detail sufficient to allow it to determine the annual Wholesale Revenue Requirement in compliance with this Agreement and to allow its determination of the Wholesale Revenue Requirement to be audited as provided in Section 7.04.

**C. Water Enterprise.** San Francisco will maintain an account structure which allows utility plant and operating and maintenance expenses to be segregated by location (inside San Francisco and outside San Francisco) and by function (Direct Retail, Regional and Direct Wholesale).

**D. Hetch Hetchy Enterprise.** San Francisco will maintain an account structure which allows utility plant and operating and maintenance expenses to be segregated into Water Only, Power Only and Joint categories.

**E. SFPUC.** San Francisco will maintain an account structure which allows any expenses of SFPUC bureaus that benefit only the Wastewater Enterprise, the Power-Only operations of the Hetch Hetchy Enterprise or Retail Customers to be excluded from the Wholesale Revenue Requirement.

**F. Utility Plant Ledgers.** San Francisco will maintain subsidiary plant ledgers for the Water and Hetch Hetchy Enterprises that contain unique identifying numbers for all assets included in the rate base and identify the original cost, annual depreciation, accumulated depreciation, date placed in service, useful life, salvage value if any, source of funding (e.g., bond series, revenues, grants), and classification for purposes of this Agreement.

- G. Debt.** San Francisco will maintain documentation identifying:
1. The portion of total bonded debt outstanding related to each series of each bond issue.
  2. The portion of total interest expense related to each series of each bond issue.
  3. The use of proceeds of each bond issue (including proceeds of commercial paper and/or other interim financial instruments redeemed or expected to be redeemed from bonds and earnings on the proceeds of financings) in sufficient detail to determine, for each bond issue, the proceeds and earnings of each (including proceeds and earnings of interim financing vehicles redeemed by a bond issue) and the total amounts expended on Direct Retail improvements and the total amounts expended on Regional improvements.

**H. Changes in Accounting.** Subject to subsections A thru G, San Francisco may change the chart of accounts and accounting practices of the SFPUC and the Water and Hetch Hetchy Enterprises. However, the allocation of any expense to the Wholesale Customers that is specified in the Agreement may not be changed merely because of a change in (1) the accounting system or chart of accounts used by SFPUC, (2) the account to which an expense is posted or (3) a change in the organizational structure of the SFPUC or the Water or Hetch Hetchy Enterprises.

**I. Audit.** San Francisco will arrange for an audit of the financial statements of Water and Hetch Hetchy Enterprises to be conducted each year by an independent certified public accountant, appointed by the Controller, in accordance with Generally Accepted Auditing Standards.

#### **7.02 Calculation of and Report on Wholesale Revenue Requirement**

A. Within five months after the close of each fiscal year, San Francisco will prepare a report showing its calculation of the Wholesale Revenue Requirement for the preceding fiscal year and the change in the balancing account as of the end of that fiscal year. The first such report will be prepared by November 30, 2010 and will cover fiscal year 2009-10 and the balancing account as of June 30, 2010.



B. The report will consist of the following items:

1. Statement of changes in the balancing account for the fiscal year being reported on, and for the immediately preceding fiscal year, substantially in the form of Attachment O.
2. Detailed supporting schedules 8.1 through 8.2 substantially in the form of Attachment N-2.
3. Description and explanation of any changes in San Francisco's accounting practices from those previously in effect.
4. Explanation of any line item of expense (shown on Attachment N-2, schedules 1 and 4) for which the amount allocated to the Wholesale Customers increased by (a) ten percent or more from the preceding fiscal year, or (b) more than \$1,000,000.
5. Representation letter signed by the SFPUC General Manager and by other SFPUC financial staff shown on Attachment P, as the General Manager may direct, subject to change in position titles at the discretion of the SFPUC.

C. The report will be delivered to the BAWSCA General Manager by the date identified in Subsection A.

Once the report has been delivered to BAWSCA, San Francisco will, upon request:

1. Provide BAWSCA with access to, and copies of, all worksheets and supporting documents used or prepared by San Francisco during its calculation of the Wholesale Revenue Requirement;
2. Make available to BAWSCA all supporting documentation and calculations used by San Francisco in preparing the report; and
3. Promptly provide answers to questions from BAWSCA staff about the report.

### 7.03 **Appointment of Compliance Auditor**

**A. Purpose.** The purpose of this section is to provide for an annual Compliance Audit by an independent certified public accountant of the procedures followed and the underlying data used by San Francisco in calculating the Wholesale Revenue Requirement for the preceding fiscal year. The annual Compliance Audit shall also determine whether the Wholesale Revenue Requirement has been calculated in accordance with the terms of the Agreement and whether amounts paid by the Wholesale Customers in excess of or less than the Wholesale Revenue Requirement have been posted to the balancing account, together with interest as provided in Section 6.05.

**B. Method of Appointment.** The Controller shall select an independent certified public accountant ("Compliance Auditor") to conduct the Compliance Audit described below. The Compliance Auditor may be the same certified public accountant engaged by the Controller to audit the financial statements of the Water and Hetch Hetchy Enterprises. Subject to approval by the Controller and the General Manager of the SFPUC, the Compliance Auditor shall have the authority to engage such consultants as it deems necessary or appropriate to assist in the audit. The terms of this Article shall be incorporated into the contract between San Francisco and the Compliance Auditor, and the Wholesale Customers shall be deemed to be third-party beneficiaries of said contract.

### 7.04 **Conduct of Compliance Audit**

**A. Standards.** The Compliance Auditor shall perform the Compliance Audit in accordance with Generally Accepted Auditing Standards. In particular, its review shall be governed by the standards contained in Section AU 623 (Reports on Specified Elements, Accounts or Items of a Financial Statement) of the AICPA, *Professional Standards*, as amended from time to time.

**B. Preliminary Meeting; Periodic Status Reports; Access to Data.** Prior to commencing the audit, the Compliance Auditor shall meet with San Francisco and BAWSCA to discuss the audit plan, the procedures to be employed and the schedule to be followed. During the course of the audit, the Compliance Auditor shall keep San Francisco and BAWSCA informed of any unforeseen problems or circumstances which could cause a delay in the audit or any material expansion of the audit's scope. The Compliance Auditor shall be given full

access to all records of the SFPUC and the Water and Hetch Hetchy Enterprises that the Auditor deems necessary for the audit.

**C. Audit Procedures.** The Compliance Auditor shall review San Francisco's calculation of the Wholesale Revenue Requirement and the underlying data in order to carry out the purpose of the audit described in Section 7.03.A and to issue the report described in Section 7.05. At a minimum, the Compliance Auditor shall address the following:

1. Water Enterprise Operating and Maintenance Expenses. The Compliance Auditor shall review Water Enterprise cost ledgers to determine whether the recorded operating and maintenance expenses fairly reflect the costs incurred, were recorded on a basis consistent with applicable Generally Accepted Accounting Principles, and were allocated to the Wholesale Customers as provided in this Agreement.

2. Water Enterprise Administrative and General Expenses. The Compliance Auditor shall review Water Enterprise cost ledgers and other appropriate financial records, including those of the SFPUC, to determine whether the recorded administrative and general expenses fairly reflect the costs incurred by or allocated to the Water Enterprise, whether they were recorded on a basis consistent with applicable Generally Accepted Accounting Principles, whether SFPUC charges were allocated to the Water Enterprise in accordance with this Agreement, and whether the amount of administrative and general expenses allocated to the Wholesale Customers was determined as provided by this Agreement.

3. Property Taxes. The Compliance Auditor shall review Water Enterprise cost ledgers to determine whether the amount of property taxes shown on the report fairly reflects the property tax expense incurred by San Francisco for Water Enterprise property outside of San Francisco and whether there has been deducted from the amount to be allocated (1) all taxes actually reimbursed to San Francisco by tenants of Water Enterprise property under leases that require such reimbursement and (2) any refunds received from the taxing authority. The Compliance Auditor also shall determine whether the amount of property taxes allocated to the Wholesale Customers was determined as provided in this Agreement.

4. Debt Service. The Compliance Auditor shall review SFPUC records to determine whether debt service, and associated coverage requirements, were allocated to the Wholesale Customers as provided in this Agreement.

5. Amortization of Existing Assets in Service as of June 30, 2009. The Compliance Auditor shall review both Water and Hetch Hetchy Enterprise records to determine whether the payoff amount for Existing Assets allocated to the Wholesale Customers as shown on Attachment K-1 through K-4 was calculated as provided in Section 5.03 of this Agreement.

6. Revenue-Funded Capital Appropriations/Expenditures. The Compliance Auditor shall review San Francisco's calculation of actual expenditures on the wholesale share of revenue-funded New Regional Assets and remaining unexpended and unencumbered project balances in the "Wholesale Capital Fund" described in Section 6.08, to determine whether the procedures contained in that section were followed.

7. Hetch Hetchy Expenses. The Compliance Auditor shall determine whether Hetch Hetchy Enterprise expenses were allocated to the Wholesale Customers as provided in this Agreement.

**D. Use of and Reliance on Audited Financial Statements and Water Use Data**

1. In performing the audit, the Compliance Auditor shall incorporate any adjustments to the cost ledgers recommended by the independent certified public accountant, referred to in Section 7.01.I, which audited the financial statements of the Water and Hetch Hetchy Enterprises. The Compliance Auditor may rely upon the work performed by that independent certified public accountant if the Compliance Auditor reviews the work and is willing to take responsibility for it as part of the compliance audit.

2. In performing the Compliance Audit and issuing its report, the Compliance Auditor may rely on water use data furnished by the Water Enterprise, regardless of whether the Wholesale Customers contest the accuracy of such data. The Compliance Auditor shall have no obligation to independently verify the accuracy of the water use data provided by San Francisco; however, the Compliance Auditor shall disclose in its report any information which came to its attention suggesting that the water use data provided by San Francisco are inaccurate in any significant respect.

**E. Exit Conference.** Upon completion of the audit, the Compliance Auditor shall meet with San Francisco and BAWSCA to discuss audit findings, including (1) any material weakness in internal controls and (2) adjustments proposed by the Compliance Auditor and San Francisco's response (i.e., booked or waived).

#### **7.05 Issuance of Compliance Auditor's Report**

A. San Francisco will require the Compliance Auditor to issue its report no later than nine months after the fiscal year under audit (i.e., March 31 of the following calendar year). The Compliance Auditor's report shall be addressed and delivered to San Francisco and BAWSCA. The report shall contain:

1. A statement that the Auditor has audited the report on the calculation of the Wholesale Revenue Requirement and changes in the balancing account, and supporting documents, prepared by San Francisco as required by Section 7.02.

2. A statement that the audit was conducted in accordance with auditing standards generally accepted in the United States of America, and that the audit provides a reasonable basis for its opinion.

3. A statement that in the Compliance Auditor's opinion the Wholesale Revenue Requirement was calculated by San Francisco in accordance with this Agreement and that the change in the balancing account shown in San Francisco's report was calculated as required by this Agreement and presents fairly, in all material respects, changes in and the balance due to (or from) the Wholesale Customers as of the end of the fiscal year under audit.

#### **7.06 Wholesale Customer Review**

A. One or more Wholesale Customers, or BAWSCA, may engage an independent certified public accountant (CPA) to conduct a review (at its or their expense) of San Francisco's calculation of the annual Wholesale Revenue Requirement and a review of changes in the balancing account.

B. If a Wholesale Customer or BAWSCA wishes such a review to be conducted it will provide written notice to SFPUC within 30 days of the date the Compliance Auditor's report is issued. The notice will identify the CPA or accounting/auditing firm that will conduct the review and the specific aspects of the Compliance Auditor's report that are the subject of the review. If more than one notice of review is received by the SFPUC, the requesting Wholesale Customers shall combine and coordinate their reviews and select a lead auditor to act on their behalf for the purposes of requesting documents and conducting on-site investigations.

C. San Francisco will cooperate with the CPA appointed by a Wholesale Customer or BAWSCA. This cooperation includes making requested records promptly available, making

knowledgeable SFPUC personnel available to timely and truthfully answer the CPA's questions and directing the Compliance Auditor to cooperate with the CPA.

D. The Wholesale Customer's review shall be completed within 60 days after the date the Compliance Auditor's report is issued. At the conclusion of the review, representatives of San Francisco and BAWSCA shall meet to discuss any differences between them concerning San Francisco's compliance with Articles 5 or 6 of this Agreement during the preceding fiscal year or San Francisco's calculation of the Wholesale Revenue Requirement for the preceding fiscal year. If such differences cannot be resolved, the dispute shall be submitted to arbitration in accordance with Section 8.01.

## Article 8. Other Agreements of the Parties

### 8.01 Arbitration and Judicial Review

**A. General Principles re Scope of Arbitration.** All questions or disputes arising under the following subject areas shall be subject to mandatory, binding arbitration and shall not be subject to judicial determination:

1. the determination of the Wholesale Revenue Requirement, which shall include both the calculations used in the determination and the variables used in those calculations;
2. the SFPUC's adherence to accounting practices and conduct of the Compliance Audit; and
3. the SFPUC's classification of new assets for purposes of determining the Wholesale Revenue Requirement.

All other questions or disputes arising under this Agreement shall be subject to judicial determination. Disputes about the scope of arbitrability shall be resolved by the courts.

**B. Demand for Arbitration.** If any arbitrable question or dispute should arise, any Wholesale Customer or the SFPUC may commence arbitration proceedings hereunder by service of a written Demand for Arbitration. Demands for arbitration shall set forth all of the issues to be arbitrated, the general contentions relating to those issues, and the relief sought by the party serving the Demand. Within 45 days after service of a Demand upon it, any Wholesale Customer or the SFPUC may serve a Notice of Election to become a party to the arbitration and a Response to the issues set forth in the Demand. The Response shall include the party's general contentions and defenses with respect to the claims made in the Demand, and may include any otherwise arbitrable claims, contentions and demands that concern the fiscal year covered by the Demand. If a timely Notice of Election and Response is not filed by any such entity, it shall not be a party to the arbitration but shall nonetheless be bound by the award of the arbitrator. If no party to this Agreement serves a timely Notice of Election and Response, the party seeking arbitration shall be entitled to the relief sought in its Demand for Arbitration without the necessity of further proceedings. Any claims not made in a Demand or Response shall be deemed waived.

If a Demand or Notice of Election is made by the SFPUC, it shall be served by personal delivery or certified mail to each Wholesale Customer at the address of such customer as set forth in the billing records of the SFPUC. If a Demand or Notice of Election is made by a Wholesale Customer, service shall be by certified mail or personal delivery to the General Manager, SFPUC, 1155 Market Street, 11<sup>th</sup> Floor, San Francisco, California 94103, and to each of the other Wholesale Customers. If arbitration is commenced, the Wholesale Customers shall use their best efforts to formulate a single, joint position with respect thereto. In any event, with respect to the appointment of arbitrators, as hereinafter provided, all Wholesale Customers that take the same position as to the issues to be arbitrated shall jointly and collectively be deemed to be a single party.

**C. Limitations Period.** All Demands For Arbitration shall be served within twelve months of receipt by BAWSCA of the Wholesale Revenue Requirement Compliance Auditor's Report for that year. If a party fails to file a Demand within the time period specified in this subsection, that party waives all present and future claims with respect to the fiscal year in question. If no such Demand is served within the twelve month period specified above, the SFPUC's determination of the Wholesale Revenue Requirement for that year shall be final and conclusive. Whether any particular claim is barred by the twelve month limitations period provided for herein shall be for the arbitrator to determine. Prior to the expiration of the twelve month limitations period, the parties to the dispute may agree by written stipulation to extend the period by up to six additional months.

The Arbitrator may order the alteration or recalculation of underlying Water Enterprise and/or Hetch Hetchy Enterprise accounts or asset classifications. Such changes shall be used to calculate the Wholesale Revenue Requirement for the fiscal year in dispute and shall also be used to determine future Wholesale Revenue Requirements, if otherwise applicable, even though the existing entries in such accounts or the asset classifications, in whole or in part, predate the twelve month period described above, so long as a timely arbitration Demand has been filed in accordance with this subsection.

**D. Number and Appointment of Arbitrators.** All arbitration proceedings under this section shall be conducted by a single arbitrator, selected by the SFPUC and a designated representative of the Wholesale Customers or each group of Wholesale Customers that take the same position with respect to the arbitration, within 75 days after service of the Demand. If the parties to the arbitration cannot agree on an arbitrator within 75 days, any party may petition



the Marin County Superior Court for the appointment of an arbitrator pursuant to Code of Civil Procedure Section 1281.6 (or any successor provision).

**E. Guidelines for Qualifications of Arbitrators.** The Wholesale Customers and the SFPUC acknowledge that the qualifications of the arbitrator will vary with the nature of the matter arbitrated, but, in general, agree that such qualifications may include service as a judge or expertise in one or more of the following fields: public utility law, water utility rate setting, water system and hydraulic engineering, utility accounting methods and practices, and water system operation and management. The parties to the arbitration shall use their best efforts to agree in advance upon the qualifications of any arbitrator to be appointed by the Superior Court.

**F. Powers of Arbitrator; Conduct of Proceedings**

1. Except as provided in this section, arbitrations under this section shall be conducted under and be governed by the provisions of California Code of Civil Procedure Sections 1282.2 through 1284.2 (hereinafter, collectively, "Code sections"), and arbitrators appointed hereunder shall have the powers and duties specified by the Code sections.

2. Within the meaning of the Code sections, the term "neutral arbitrator" shall mean the single arbitrator selected by the parties to the arbitration.

3. Unless waived in writing by the parties to the arbitration, the notice of hearing served by the arbitrator shall not be less than 90 days.

4. The lists of witnesses (including expert witnesses), and the lists of documents (including the reports of expert witnesses) referred to in Code of Civil Procedure Section 1282.2 shall be mutually exchanged, without necessity of demand therefore, no later than 60 days prior to the date of the hearing, unless otherwise agreed in writing by the parties to the arbitration. Upon application of any party, or on his or her own motion, the arbitrator may schedule one or more prehearing conferences for the purposes of narrowing and/or expediting resolution of the issues in dispute. Strict conformity to the rules of evidence is not required, except that the arbitrator shall apply applicable law relating to privileges and work product. The arbitrator shall consider evidence that he or she finds relevant and material to the dispute, giving the evidence such weight as is appropriate. The arbitrator may limit testimony to exclude evidence that would be immaterial or unduly repetitive, provided that all parties are afforded the opportunity to present material and relevant evidence.

5. Within thirty days after the close of the arbitration hearing, or such other time as the arbitrator shall determine, the parties will submit proposed findings and a proposed remedy to the arbitrator. The parties may file objections to their adversary's proposed findings and remedy within a time limit to be specified by the arbitrator. The arbitrator shall not base his or her award on information not obtained at the hearing.

6. The arbitrator shall render a written award no later than twelve months after the arbitrator is appointed, either by the parties or by the court, provided that such time may be waived or extended as provided in Code of Civil Procedure Section 1283.8.

7. The provisions for discovery set forth in Code of Civil Procedure Section 1283.05 are incorporated into and made part of this Agreement, except that: (a) leave of the arbitrator need not be obtained for the taking of depositions, including the depositions of expert witnesses; (b) the provisions of Code of Civil Procedure Section 2034.010 et seq., relating to discovery of expert witnesses, shall automatically be applicable to arbitration proceedings arising under this Agreement without the necessity for a formal demand pursuant to Section 2034.210 and the date for the exchange of expert discovery provided by Sections 2034.260 and 2034.270 shall be not later than 60 days prior to the date for the hearing; and (c) all reports, documents, and other materials prepared or reviewed by any expert designated to testify at the arbitration shall be discoverable. In appropriate circumstances, the arbitrator may order any party to this Agreement that is not a party to the arbitration to comply with any discovery request.

8. For the purposes of allocation of expenses and fees, as provided in Code of Civil Procedure Section 1284.2, if any two or more Wholesale Customers join together in a single, joint position in the arbitration, those Wholesale Customers shall be deemed to be a single party. If any Wholesale Customer or customers join together with the SFPUC in a single joint position in the arbitration, those Wholesale Customers and the SFPUC together shall be deemed to be a single party.

9. Subject to any other limitations imposed by the Agreement, the arbitrator shall have power to issue orders mandating compliance with the terms of the Agreement or enjoining violations of the Agreement. With respect to any arbitration brought to redress a claimed wholesale overpayment to the SFPUC, the arbitrator's power to award monetary relief

shall be limited to entering an order requiring that an adjustment be made in the amount posted to the balancing account for the fiscal year covered by the Demand.

10. All awards of the arbitrator shall be binding on the SFPUC and the Wholesale Customers regardless of the participation or lack thereof by any Wholesale Customer or the SFPUC as a party to the arbitration proceeding. The parties to an arbitration shall have the power to modify or amend any arbitration award by mutual consent. The arbitrator shall apply California law.

## **8.02 Attorneys' Fees**

**A. Arbitration or Litigation Between San Francisco and Wholesale Customers Arising under the Agreement or Individual Water Sales Contracts.** Each party will bear its own costs, including attorneys' fees, incurred in any arbitration or litigation arising under this Agreement or the Individual Water Sales Contracts between San Francisco and the Wholesale Customers. Notwithstanding the foregoing, and subject to the limitations contained herein, the SFPUC may allocate to the Wholesale Customers as an allowable expense, utilizing the composite rate used for allocating other Water Enterprise administrative and general expenses, any attorneys' fees and costs incurred by the SFPUC in connection with arbitration and/or litigation arising under this Agreement and/or the Individual Water Sales Contracts. Attorneys' fees incurred by the SFPUC for attorneys employed in the San Francisco City Attorney's office shall be billed at the hourly rates charged for the attorneys in question by the San Francisco City Attorney's Office to the SFPUC. Attorneys' fees incurred by the SFPUC for attorneys other than those employed in the San Francisco City Attorney's Office shall be limited to the hourly rates charged to the SFPUC for attorneys and paralegals with comparable experience employed in the San Francisco City Attorney's office and in no event shall exceed the highest hourly rate charged by any attorney or paralegal employed in the City Attorney's Office to the SFPUC.

## **B. Arbitration or Litigation Outside of Agreement Concerning the SFPUC Water System or Reserved Issues**

1. The attorneys' fees and costs incurred by the SFPUC in litigation between San Francisco and one or more of the Wholesale Customers arising from matters outside of the Agreement, including, without limitation, litigation and/or arbitration concerning the issues specifically reserved in the Agreement, shall be allocated between the Retail Customers and the

Wholesale Customers utilizing the composite rate used for allocating other Water Enterprise administrative and general expenses.

2. If, in any litigation described in subsection B.1 above, attorneys' fees and costs are awarded to one or more of the Wholesale Customers as prevailing parties, the SFPUC's payment of the Wholesale Customers' attorneys' fees and costs shall not be an allowable expense pursuant to subsection A.

3. If, in any litigation described in subsection B.1, the SFPUC obtains an award of attorneys' fees and costs as a prevailing party against one or more of the Wholesale Customers, any such award shall be reduced to offset the amount of the SFPUC's fees and costs, if any, that have already been paid by the Wholesale Customers in the current or any prior fiscal years pursuant to subsection B.1 and the provisions of Articles 5 and 6 of the Agreement.

4. Nothing contained in this Agreement, including this subsection, shall authorize a court to award attorneys' fees and costs to a prevailing party as a matter of contract and/or the provisions of Civil Code Section 1717, in litigation between San Francisco and one or more of the Wholesale Customers arising from matters outside of the Agreement, including, without limitation, litigation and/or arbitration concerning the issues specifically reserved in the Agreement.

**C. Attorneys Fees and Costs Incurred by the SFPUC in Connection with the Operation and Maintenance of the SFPUC Water Supply System.** All attorneys' fees and costs incurred by the SFPUC in connection with the operation and maintenance of the SFPUC's water supply system shall be allocated between Retail Customers and the Wholesale Customers utilizing the composite rate used for allocating other Water Enterprise administrative and general expenses.

### **8.03 Annual Meeting and Report**

A. The parties wish to ensure that the Wholesale Customers may, in an orderly way, be informed of matters affecting the Regional Water System, including matters affecting the continuity and adequacy of their water supply from San Francisco.

For this purpose, the General Manager of the SFPUC shall meet annually with the Wholesale Customers and BAWSCA during the month of February, commencing

February 2010. At these annual meetings, the SFPUC shall provide the Wholesale Customers a report on the following topics:

1. Capital additions under construction or being planned for the Regional Water System, including the status of planning studies, financing plans, environmental reviews, permit applications, etc.;
2. Water use trends and projections for Retail Customers and Wholesale Customers;
3. Water supply conditions and projections;
4. The status of any administrative proceedings or litigation affecting San Francisco's water rights or the SFPUC's ability to deliver water from the watersheds which currently supply the Regional Water System;
5. Existing or anticipated problems with the maintenance and repair of the Regional Water System or with water quality;
6. Projections of Wholesale Revenue Requirements for the next five years;
7. Any other topic which the SFPUC General Manager places on the agenda for the meeting;
8. Any topic which the Wholesale Customers, through BAWSCA, request be placed on the agenda, provided that the SFPUC is notified of the request at least 10 days before the meeting.

B. The General Manager of the SFPUC, the Assistant General Manager of the Water Enterprise, and the Assistant General Manager of Business Services-CFO will use their best efforts to attend the annual meetings. If one or more of these officers are unable to attend, they will designate an appropriately informed assistant to attend in their place.

#### **8.04 Administrative Matters Delegated to BAWSCA**

A. The Wholesale Customers hereby delegate the authority and responsibility for performing the following administrative functions contemplated in this Agreement to BAWSCA:

1. Approval of calculations of Proportional Annual Water Use required by Section 3.14 and Attachment J, "Water Use Measurement and Tabulation";
2. Approval of amendments to Attachments J and K-3 and K-4, "25-Year Payoff Schedules for Existing Rate Base";
3. Agreement that the Water Meter and Calibration Procedures Manual to be prepared by the SFPUC may supersede some or all of the requirements in Attachment J, as described in Section 3.14;
4. Conduct of Wholesale Customer review of SFPUC's calculation of annual Wholesale Revenue Requirement/Change in Balancing Account described in Section 7.06;
5. Approval of an adjustment to Wholesale Revenue Coverage as described in Section 6.06.

B. A majority of the Wholesale Customers may, without amending this Agreement, delegate additional administrative functions to BAWSCA. To be effective, such expanded delegation must be evidenced by resolutions adopted by the governing bodies of a majority of the Wholesale Customers.

C. Unless otherwise explicitly stated, the administrative authority delegated to BAWSCA may be exercised by the General Manager/CEO of BAWSCA, rather than requiring action by the BAWSCA Board of Directors. In addition, the Wholesale Customers may, with the consent of BAWSCA, delegate to BAWSCA the initiation, defense, and settlement of arbitration proceedings provided for in Section 8.01.

#### **8.05 Preservation of Water Rights; Notice of Water Rights Proceedings**

A. It is the intention of San Francisco to preserve all of its water rights, irrespective of whether the water held under such water rights is allocated under this Agreement. Nothing in this Agreement shall be construed as an abandonment, or evidence of an intent to abandon, any of the water rights that San Francisco presently possesses.

B. San Francisco shall use its best efforts to give prompt notice to BAWSCA of any litigation or administrative proceedings to which San Francisco is a party involving water rights to the Regional Water System. The failure of San Francisco to provide notice as required by this section, for whatever reason, shall not give rise to any monetary liability.

#### **8.06 SFPUC Rules and Regulations**

The sale and delivery of all water under this Agreement shall be subject to such of the “Rules and Regulations Governing Water Service to Customers” of the Water Enterprise adopted by the Commission, as those rules and regulations may be amended from time to time, as are (1) applicable to the sale and delivery of water to the Wholesale Customers, (2) reasonable, and (3) not inconsistent with either this Agreement or with an Individual Water Sales Contract. The SFPUC will give the Wholesale Customers notice of any proposal to amend the Rules and Regulations in a manner that would affect the Wholesale Customers. The notice will be delivered at least thirty days in advance of the date on which the proposal is to be considered by the Commission and will be accompanied by the text of the proposed amendment.

#### **8.07 Reservations of, and Limitations on, Claims**

**A. General Reservation of Raker Act Contentions.** The 1984 Agreement resolved a civil action brought against San Francisco by certain of the Wholesale Customers. Plaintiffs in that action contended that they, and other Wholesale Customers that are municipalities or special districts, were “co-grantees” within the meaning of Section 8 of the Act and were entitled to certain rights, benefits and privileges by virtue of that status. San Francisco disputed those claims.

Nothing in this Agreement, or in the Individual Water Sales Contracts, shall be construed or interpreted in any way to affect the ultimate resolution of the controversy between the parties concerning whether any of the Wholesale Customers are “co-grantees” under the Act and, if so, what rights, benefits and privileges accrue to them by reason of that claimed status.

**B. Claims Reserved but not Assertable During Term or Portions Thereof.** The following claims, which San Francisco disputes, are reserved but may not be asserted during the Term (or portions thereof, as indicated):

1. The Wholesale Customers’ claim that the Act entitles them to water at cost.
2. The Wholesale Customers’ claim that San Francisco is obligated under the Act or state law to supply them with additional water in excess of the Supply Assurance. This claim may not be asserted unless and until San Francisco decides not to meet projected

water demands of Wholesale Customers in excess of the Supply Assurance pursuant to Section 4.06.

3. The claim by San Jose and Santa Clara that they are entitled under the Act, or any other federal or state law, to permanent, non-interruptible status and to be charged rates identical to those charged other Wholesale Customers. This claim may not be asserted unless and until San Francisco notifies San Jose or Santa Clara that it intends to interrupt or terminate water deliveries pursuant to Section 4.05.

4. The Wholesale Customers' claim that the SFPUC is not entitled to impose a surcharge for lost power generation revenues attributable to furnishing water in excess of the Supply Assurance. This claim may not be asserted unless and until SFPUC furnishes water in excess of the Supply Assurance during the Term and also includes such a surcharge in the price of such water.

5. Claims by Wholesale Customers (other than San Jose and Santa Clara, whose service areas are fixed) that SFPUC is obligated under the Act or state law to furnish water, within their Individual Supply Guarantee, for delivery to customers outside their existing service area and that Wholesale Customers are entitled to enlarge their service areas to supply those customers. Such claims may be asserted only after compliance with the procedure set forth in Section 3.03, followed by SFPUC's denial of, or failure for six months to act on, a written request by a Wholesale Customer to expand its service area.

**C. Waived Activities.** The Wholesale Customers (and the SFPUC, where specified) will refrain from the following activities during the Term (or portions thereof, as specified):

1. The Wholesale Customers and the SFPUC will not contend before any court, administrative agency or legislative body or committee that the methodology for determining the Wholesale Revenue Requirement (or the requirements for (a) amortization of the ending balance under the 1984 Agreement, or (b) contribution to the Wholesale Revenue Coverage) determined in accordance with this Agreement violates the Act or any other provision of federal law, state law, or San Francisco's City Charter, or is unfair, unreasonable or unlawful.

2. The Wholesale Customers will not challenge the transfer of funds by the SFPUC to any other San Francisco City department or fund, provided such transfer complies with the San Francisco City Charter. The transfer of its funds, whether or not permitted by the



City Charter, will not excuse the SFPUC from its failure to perform any obligation imposed by this Agreement.

3. The Wholesale Customers and the SFPUC will not assert monetary claims against one another based on the 1984 Agreement other than otherwise arbitrable claims arising from the three fiscal years immediately preceding the start of the Term (i.e., FYs 2006-07, 2007-08 and 2008-09). Such claims, if any, shall be governed by the dispute resolution provisions of this Agreement, except that the time within which arbitration must be commenced shall be 18 months from delivery of the Compliance Auditor's report.

**D. Other**

1. This Agreement shall determine the respective monetary rights and obligations of the parties with respect to water sold by the SFPUC to the Wholesale Customers during the Term. Such rights and obligations shall not be affected by any judgments or orders issued by any court in litigation, whether or not between parties hereto, and whether or not related to the controversy over co-grantee status, except for arbitration and/or litigation expressly permitted in this Agreement. No judicial or other resolution of issues reserved by this section will affect the Wholesale Revenue Requirement which, during the Term, will be determined exclusively as provided in Articles 5, 6 and 7 of this Agreement.

2. Because delays in the budget process or other events may cause the SFPUC to defer the effective date of changes in wholesale rates until after the beginning of the fiscal year, this Agreement does not require the SFPUC to make changes in wholesale rates effective at the start of the fiscal year or at any other specific date.

3. The Wholesale Customers do not, by executing this Agreement, concede the legality of the SFPUC's establishing Interim Supply Allocations, as provided in Article 4 or imposing Environmental Enhancement Surcharges on water use in excess of such allocations. Any Wholesale Customer may challenge such allocation when imposed and/or such surcharges if and when levied, in any court of competent jurisdiction.

4. The furnishing of water in excess of the Supply Assurance by San Francisco to the Wholesale Customers shall not be deemed or construed to be a waiver by San Francisco of its claim that it has no obligation under any provision of law to supply such water to the Wholesale Customers, nor shall it constitute a dedication by San Francisco to the Wholesale Customers of such water.

### **8.08 Prohibition of Assignment**

A. This Agreement shall be binding on, and shall inure to the benefit of, the parties and their respective successors and permitted assigns. Each Wholesale Customer agrees that it will not transfer or assign any rights or privileges under this Agreement, either in whole or in part, or make any transfer of all or any part of its water system or allow the use thereof in any manner whereby any provision of this Agreement will not continue to be binding on it, its assignee or transferee, or such user of the system. Any assignment or transfer in violation of this covenant, and any assignment or transfer that would result in the supply of water in violation of the Act, shall be void.

B. Nothing in this section shall prevent any Wholesale Customer (except the California Water Service Company and Stanford) from entering into a joint powers agreement or a municipal or multi-party water district with any other Wholesale Customer (except the two listed above) to exercise the rights and obligations granted to and imposed upon the Wholesale Customers hereunder, nor shall this section prevent any Wholesale Customer (except the two listed above) from succeeding to the rights and obligations of another Wholesale Customer hereunder as long as the Wholesale Service Area served by the Wholesale Customers involved in the succession is not thereby enlarged.

### **8.09 Notices**

A. All notices and other documents that San Francisco is required or permitted to send to the Wholesale Customers under this Agreement shall be sent to each and all of the Wholesale Customers by United States mail, first class postage prepaid, addressed to each Wholesale Customer at the address to which monthly water bills are mailed by the Water Enterprise.

B. All notices or other documents which the Wholesale Customers are required or permitted to send to San Francisco under this Agreement shall be sent by United States mail, first class postage prepaid, addressed as follows:

General Manager  
San Francisco Public Utilities Commission  
1155 Market Street, 11<sup>th</sup> Floor  
San Francisco, CA 94103

C. Each Wholesale Customer is a member of BAWSCA. San Francisco shall send a copy of each notice or other document which it is required to send to all Wholesale Customers to BAWSCA addressed as follows:

General Manager/CEO  
Bay Area Water Supply and Conservation Agency  
155 Bovet Road, Suite 302  
San Mateo, CA 94402

The failure of San Francisco to send a copy of such notices or documents to BAWSCA shall not invalidate any rate set or other action taken by San Francisco.

D. Any party (or BAWSCA) may change the address to which notice is to be sent to it under this Agreement by notice to San Francisco (in the case of a change desired by a Wholesale Customer or BAWSCA ) and to the Wholesale Customer and BAWSCA (in the case of a change desired by San Francisco).

The requirements for notice set forth in Section 8.01 concerning arbitration shall prevail over this section, when they are applicable.

#### **8.10 Incorporation of Attachments**

Attachments A through Q, referred to herein, are incorporated in and made a part of this Agreement.

#### **8.11 Interpretation**

In interpreting this Agreement, or any provision thereof, it shall be deemed to have been drafted by all signatories, and no presumption pursuant to Civil Code Section 1654 may be invoked to determine the Agreement's meaning. The marginal headings and titles to the sections and paragraphs of this Agreement are not a part of this Agreement and shall have no effect upon the construction or interpretation of any part hereof.

#### **8.12 Actions and Approvals by San Francisco**

Whenever action or approval by San Francisco is required or contemplated by this Agreement, authority to act or approve shall be exercised by the Commission, except if such action is required by law to be taken, or approval required to be given, by the San Francisco Board of Supervisors. The Commission may delegate authority to the General Manager in

accordance with the San Francisco City Charter and Administrative Code, except for actions that this Agreement requires to be taken by the Commission.

### **8.13 Counterparts**

Execution of this Agreement may be accomplished by execution of separate counterparts by each signatory. San Francisco shall deliver its executed counterpart to BAWSCA and the counterpart which each Wholesale Customer executes shall be delivered to San Francisco. The separate executed counterparts, taken together, shall constitute a single agreement.

### **8.14 Limitations on Damages**

A. Unless otherwise prohibited by this Agreement, general or direct damages may be recovered for a breach of a party's obligations under this Agreement. No party is liable for, or may recover from any other party, special, indirect or consequential damages or incidental damages, including, but not limited to, lost profits or revenue. No damages may be awarded for a breach of Section 8.17.

B. The limitations in subsection A apply only to claims for damages for an alleged breach of this Agreement. These limitations do not apply to claims for damages for an alleged breach of a legal duty that arises independently of this Agreement, established by constitution or statute.

C. If damages would be an inadequate remedy for a breach of this Agreement, equitable relief may be awarded by a court in a case in which it is otherwise proper.

D. This section does not apply to any claim of breach for which arbitration is the exclusive remedy pursuant to Section 8.01.A.

### **8.15 Force Majeure**

A. **Excuse from Performance**. No party shall be liable in damages to any other party for delay in performance of, or failure to perform, its obligations under this Agreement, including the obligations set forth in Sections 3.09 and 4.06, if such delay or failure is caused by a "Force Majeure Event."

B. **Notice**. The party claiming excuse shall deliver to the other parties a written notice of intent to claim excuse from performance under this Agreement by reason of a Force

Majeure Event. Notice required by this section shall be given promptly in light of the circumstances, and, in the case of events described in (c), (d) or (e) of the definition of Force Majeure Event only, not later than ten (10) days after the occurrence of the Force Majeure Event. Such notice shall describe the Force Majeure Event, the services impacted by the claimed event, the length of time that the party expects to be prevented from performing, and the steps which the party intends to take to restore its ability to perform.

**C. Obligation to Restore Ability to Perform.** Any suspension of performance by a party pursuant to this section shall be only to the extent, and for a period of no longer duration than, required by the nature of the Force Majeure Event, and the party claiming excuse shall use its best efforts to remedy its inability to perform as quickly as possible.

**8.16 No Third-Party Beneficiaries**

This Agreement is exclusively for the benefit of the parties and not for the benefit of any other Person. There are no third-party beneficiaries of this Agreement and no person not a party shall have any rights under or interests in this Agreement.

No party may assert a claim for damages on behalf of a person other than itself, including a person that is not a party.

**8.17 Good Faith and Fair Dealing**

San Francisco and the Wholesale Customers each acknowledge their obligation under California law to act in good faith toward, and deal fairly with, each other with respect to this Agreement.

## **Article 9. Implementation and Special Provisions Affecting Certain Wholesale Customers**

### **9.01 General; Individual Water Sales Contracts**

A. As described in Section 1.03, San Francisco previously entered into Individual Water Sales Contracts with each of the Wholesale Customers. The term of the majority of Individual Water Sales Contracts will expire on June 30, 2009, concurrently with the expiration of the 1984 Agreement. Except as provided below in this Article, each of the Wholesale Customers will execute a new Individual Water Sales Contract with San Francisco concurrently with its approval of the Agreement.

B. The Individual Water Sales Contracts will describe the service area of each Wholesale Customer, identify the location and size of connections between the Regional Water System and the Wholesale Customer's distribution system, provide for periodic rendering and payment of bills for water usage, and in some instances contain additional specialized provisions unique to the particular Wholesale Customer and not of general concern or applicability. A sample Individual Water Sales Contract is provided at Attachment F. The Individual Water Sales Contracts between San Francisco and the Wholesale Customers will not contain any provision inconsistent with Articles 1 through 8 of this Agreement except (1) as provided below in this Article or (2) to the extent that such provisions are not in derogation of the Fundamental Rights of other Wholesale Customers under this Agreement. Any provisions in an Individual Water Sales Contract which are in violation of this section shall be void.

### **9.02 California Water Service Company**

A. The parties recognize that the California Water Service Company is an investor-owned utility company and, as such, has no claim to co-grantee status under the Act, which specifically bars private parties from receiving for resale any water produced by the Hetch Hetchy portion of the Regional Water System. Accordingly, the following provisions shall apply to the California Water Service Company, notwithstanding anything to the contrary elsewhere in this Agreement.

B. The total quantity of water delivered by San Francisco to the California Water Service Company shall not in any calendar year exceed 47,400 acre feet, which is the estimated average annual production of Local System Water. If San Francisco develops additional Local System Water after the Effective Date, it may (1) increase the maximum

delivery amount stated herein; and (2) increase the Supply Assurance, but not necessarily both. San Francisco has no obligation to deliver water to California Water Service Company in excess of the maximum stated herein, except as such maximum may be increased by San Francisco pursuant to this subsection. The maximum annual quantity of Local System Water set forth in this subsection is intended to be a limitation on the total quantity of water that may be allocated to California Water Service Company, and is not an Individual Supply Guarantee for purposes of Section 3.02. The maximum quantity of Local System Water set forth in this subsection is subject to reduction in response to (1) changes in long-term hydrology or (2) environmental water requirements that may be imposed by or negotiated with state and federal resource agencies in order to comply with state or federal law or to secure applicable permits for construction of Regional Water System facilities. San Francisco shall notify California Water Service Company of any anticipated reduction of the quantity of Local System Water set forth in this subsection, along with an explanation of the basis for the reduction.

C. Notwithstanding anything in Section 8.08 to the contrary, California Water Service Company shall have the right to assign to a public agency having the power of eminent domain all or a portion of the rights of California Water Service Company under any contract between it and San Francisco applicable to any individual district of California Water Service Company in connection with the acquisition by such public agency of all or a portion of the water system of California Water Service Company in such district. In the event of any such assignment of all the rights, privileges and obligations of California Water Service Company under such contract, California Water Service Company shall be relieved of all further obligations under such contract provided that the assignee public agency expressly assumes the obligations of California Water Service Company thereunder. In the event of such an assignment of a portion of the rights, privileges and obligations of California Water Service Company under such contract, California Water Service Company shall be relieved of such portion of such obligations so assigned thereunder provided that the assignee public agency shall expressly assume such obligations so assigned to it.

D. Should California Water Service Company seek to take over or otherwise acquire, in whole or in part, the service obligations of another Wholesale Customer under Section 3.03.E, it will so inform San Francisco at least six months prior to the effective date of the sale and provide information concerning the total additional demand proposed to be served, in order that San Francisco may compare the proposed additional demand to the then-current estimate of Local System Water. In this regard, California Water Service Company has notified

the SFPUC that it has reached an agreement to acquire the assets of Skyline County Water District (“Skyline”) and assume the responsibility for providing water service to customers in the Skyline service area. California Water Service Company has advised the SFPUC that, on September 18, 2008, the California Public Utilities Commission approved California Water Service Company’s acquisition of Skyline. The SFPUC anticipates approving the transfer of Skyline’s Supply Guarantee as shown on Attachment C to California Water Service Company and the expansion of California Water Service Company’s service area to include the current Skyline service area before the Effective Date of this Agreement. All parties to this Agreement authorize corresponding modifications of Attachment C, as well as any of the Agreement’s other provisions, to reflect the foregoing transaction without the necessity of amending this Agreement.

E. Nothing in this Agreement shall preclude San Francisco from selling water to any county, city, town, district, political subdivision, or other public agency for resale to customers within the service area of the California Water Service Company. Nothing in this Agreement shall require or contemplate any delivery of water to California Water Service Company in violation of the Act.

F. Nothing in this Agreement shall alter, amend or modify the Findings of Fact and Conclusions of Law and the Judgment dated May 25, 1961, in that certain action entitled *City and County of San Francisco v. California Water Service Company* in the Superior Court of the State of California in and for the County of Marin, No. 23286, as modified by the Quitclaim Deed from California Water Service Company to San Francisco dated August 22, 1961. The rights and obligations of San Francisco and California Water Service Company under these documents shall continue as therein set forth.

### **9.03 City of Hayward**

A. San Francisco and the City of Hayward (“Hayward”) entered into a water supply contract on February 9, 1962 (“the 1962 contract”) which provides, *inter alia*, that San Francisco will supply Hayward with all water supplemental to sources and supplies of water owned or controlled by Hayward as of that date, in sufficient quantity to supply the total water needs of the service area described on an exhibit to the 1962 contract “on a permanent basis.” The service area map attached as Exhibit C to the 1962 contract was amended in 1974 to remove an area of land in the Hayward hills and in 2008 to make minor boundary adjustments identified in SFPUC Resolution No. 08-0035.



B. The intention of the parties is to continue the 1962 contract, as amended, in effect as the Individual Water Sales Contract between San Francisco and Hayward. Accordingly, it shall not be necessary for San Francisco and Hayward to enter into a new Individual Water Sales Contract pursuant to this Article and approval of this Agreement by Hayward shall constitute approval of both this Agreement and an Individual Water Sales Contract for purposes of Section 1.03. The 1962 contract, as amended, will continue to describe the service area of Hayward, while rates for water delivered to Hayward during the Term shall be governed by Article 5 hereof. The 1962 contract, as amended, will continue in force after the expiration of the Term.

#### **9.04 Estero Municipal Improvement District**

A. San Francisco and the Estero Municipal Improvement District (“Estero”) entered into a water supply contract on August 24, 1961, the term of which continues until August 24, 2011 (“the 1961 Contract”). The 1961 Contract provides, *inter alia*, that San Francisco will supply Estero with all water supplemental to sources and supplies of water owned or controlled by Estero as of that date, in sufficient quantity to supply the total water needs of the service area described on an exhibit to the 1961 Contract.

B. The intention of the parties is to terminate the 1961 Contract and replace it with a new Individual Water Sales Contract which will become effective on July 1, 2009. The new Individual Water Sales Contract will describe the current service area of Estero. The Individual Supply Guarantee applicable to Estero shall be 5.9 MGD, rather than being determined as provided in the 1961 Contract.

#### **9.05 Stanford University**

A. The parties recognize that The Board of Trustees of The Leland Stanford Junior University (“Stanford”) operates a non-profit university, and purchases water from San Francisco for redistribution to the academic and related facilities and activities of the university and to residents of Stanford, the majority of whom are either employed by or students of Stanford. Stanford agrees that all water furnished by San Francisco shall be used by Stanford only for domestic purposes and those directly connected with the academic and related facilities and activities of Stanford, and no water furnished by San Francisco shall be used in any area now or hereafter leased or otherwise used for industrial purposes or for commercial purposes other than those campus support facilities that provide direct services to Stanford faculty, students or staff such as the U.S. Post Office, the bookstore and Student Union.

Nothing in this Agreement shall preclude San Francisco from selling water to any county, city, town, political subdivision or other public agency for resale to Stanford or to customers within the service area of Stanford.

B. Notwithstanding anything in Section 8.08 to the contrary, Stanford shall have the right to assign to a public agency having the power of eminent domain all or a portion of the rights of Stanford under this Agreement or the Individual Water Sales Contract between it and San Francisco in connection with the acquisition by such public agency of all or a portion of Stanford's water system. In the event of any such assignment of all the rights, privileges, and obligations of Stanford under such contract, Stanford shall be relieved of all further obligations under such contract, provided that the assignee public agency expressly assumes Stanford's obligations thereunder. In the event of such an assignment of a portion of the rights, privileges, and obligations of Stanford under such contract, Stanford shall be relieved of such obligations so assigned thereunder, provided that the assignee public agency shall expressly assume such obligations so assigned to it.

Nothing in this Agreement shall require or contemplate any delivery of water to Stanford in violation of the Act.

#### **9.06 City of San Jose and City of Santa Clara**

A. **Continued Supply on Temporary, Interruptible Basis.** During the term of the 1984 Agreement, San Francisco provided water to the City of San Jose ("San Jose") and the City of Santa Clara ("Santa Clara") on a temporary, interruptible basis pursuant to SFPUC Resolution No. 85-0256. Subject to termination or reduction of supply as provided in Section 4.05 of this Agreement, San Francisco will continue to supply water to San Jose and Santa Clara on a temporary, interruptible basis pending a decision by the Commission, pursuant to Section 4.05.H, as to whether to make San Jose and Santa Clara permanent customers of the Regional Water System. San Francisco will furnish water to San Jose and Santa Clara at the same rates as those applicable to other Wholesale Customers pursuant to this Agreement. Water delivered to San Jose and Santa Clara after July 1, 2009 may be limited by the SFPUC's ability to meet the full needs of all its other Retail and Wholesale Customers. The service areas of San Jose and Santa Clara set forth in their Individual Water Sales Contracts may not be expanded using the procedure set forth in Section 3.03. The combined annual average water usage of San Jose and Santa Clara shall not exceed 9 MGD. The allocation of that total

amount between San Jose and Santa Clara shall be as set forth in their Individual Water Sales Contracts.

**B. Reservation of Rights.** In signing this Agreement, neither San Jose nor Santa Clara waives any of its rights to contend, in the event that San Francisco (1) elects to terminate or interrupt water deliveries to either or both of the two cities prior to 2018 using the process set forth in Section 4.05, or (2) does not elect to take either city on as a permanent customer in 2018, that it is entitled to permanent customer status, pursuant to the Act or any other federal or state law. In signing this Agreement, San Francisco does not waive its right to deny any or all such contentions.

**9.07 City of Brisbane, Guadalupe Valley Municipal Improvement District, Town of Hillsborough**

A. The parties acknowledge that San Francisco has heretofore provided certain quantities of water to the City of Brisbane (“Brisbane”), Guadalupe Valley Municipal Improvement District (“Guadalupe”) and the Town of Hillsborough (“Hillsborough”) at specified rates or without charge pursuant to obligations arising out of agreements between the predecessors of San Francisco and these parties, which agreements are referred to in judicial orders, resolutions of the SFPUC and/or the 1960 contracts between San Francisco and Brisbane, Guadalupe and Hillsborough. The parties intend to continue those arrangements and accordingly agree as follows:

1. Nothing in this Agreement is intended to alter, amend or modify the terms of SFPUC Resolution No. 74-0653 or the indenture of July 18, 1908 between the Guadalupe Development Company and the Spring Valley Water Company.

2. Nothing in this Agreement is intended to alter, amend or modify the Findings of Fact and Conclusions of Law and Judgment dated May 25, 1961 in that certain action entitled *City and County of San Francisco v. Town of Hillsborough* in the Superior Court of the State of California in and for the County of Marin, No. 23282, as modified by the Satisfaction of Judgment filed October 23, 1961 and the Compromise and Release between Hillsborough and San Francisco dated August 22, 1961. The rights and obligations of Hillsborough under these documents shall continue as therein set forth.

3. Nothing in this Agreement is intended to affect or prejudice any claims, rights or remedies of Guadalupe or of Crocker Estate Company, a corporation, or of Crocker

Land Company, a corporation, or of San Francisco, or of their successors and assigns, respectively, with respect to or arising out of that certain deed dated May 22, 1884, from Charles Crocker to Spring Valley Water Works, a corporation, recorded on May 24, 1884, in Book 37 of Deeds at page 356, Records of San Mateo County, California, as amended by that certain Deed of Exchange of Easements in Real Property and Agreement for Trade in Connection Therewith, dated July 29, 1954, recorded on August 4, 1954, in Book 2628, at page 298, Official Records of said San Mateo County, or with respect to or arising out of that certain action involving the validity or enforceability of certain provisions of said deed entitled *City and County of San Francisco v. Crocker Estate Company*, in the Superior Court of the State of California in and for the County of Marin, No. 23281.

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IN WITNESS WHEREOF the parties have executed this Agreement by their duly authorized officers.

**CITY AND COUNTY OF SAN FRANCISCO**  
Acting by and through its Public Utilities Commission

By: \_\_\_\_\_  
Edward Harrington  
General Manager

Date: \_\_\_\_\_, 2009

Approved by Commission Resolution No. 09-0069,  
adopted April 28, 2009

\_\_\_\_\_  
Michael Housh  
Secretary to Commission

Approved as to form:

DENNIS J. HERRERA  
City Attorney

By: \_\_\_\_\_  
Joshua D. Milstein  
Deputy City Attorney

## Attachment A - Definitions

**“1984 Agreement”** refers to the 1984 Settlement Agreement and Master Water Sales Contract between the City and County of San Francisco and certain Suburban Purchasers in San Mateo County, Santa Clara County and Alameda County, which expires on June 30, 2009.

**“Act”** refers to the Raker Act, 38 Stat. 242, the Act of Congress, enacted in 1913, that authorized the construction of the Hetch Hetchy system on federal lands.

**“Adjusted Proportional Annual Use”** means the respective percentages of annual water use, as adjusted to reflect deliveries of water by the Hetch Hetchy Enterprise to outside City Retail Customers. The adjustment is calculated each year as described in Section B of Attachment J and is shown on lines 18 and 19 of Table 1 of that Attachment.

**“Agreement”** refers to this Water Supply Agreement, by and among San Francisco and the Wholesale Customers who approve this Agreement in accordance with Section 1.03.

**“BAWSCA”** refers to the Bay Area Water Supply and Conservation Agency established pursuant to Division 31 of the California Water Code (Water Code §§81300-81461) or its successor and permitted assigns.

**“CEQA”** refers to the California Environmental Quality Act found at §§21000 et seq. of the Public Resources Code and the Guidelines for the California Environmental Quality Act found at §§15000 et seq. of Title 14 of the California Code of Regulations, as amended from time to time.

**“Commission”** means the governing board of the SFPUC, whose members, as of the date of this Agreement, are appointed by the Mayor of San Francisco and confirmed by the San Francisco Board of Supervisors.

**“Compliance Audit”** refers to the annual audit of the Wholesale Revenue Requirement by the Compliance Auditor required by Sections 7.03 through 7.05.

**“Compliance Auditor”** refers to the independent certified public accountant chosen by the San Francisco Controller to conduct each fiscal year’s audit of the SFPUC’s calculation of the Wholesale Revenue Requirement as provided in Section 7.03.B.

**“Countywide Cost Allocation Plan”** refers to the full costs of the Water and Hetch Hetchy Enterprises’ prorated share of San Francisco city government expenses that are not directly billed to city departments, as determined by the Controller of the City and County of San Francisco.

**“Debt Service”** means principal and interest paid during a fiscal year on Indebtedness incurred by the SFPUC for the 2006 Revenue Bonds, Series A, and subsequently issued Indebtedness (exclusive of 2006 Revenue Bonds Series B and C), the proceeds of which are used or are scheduled to be used for the acquisition or construction of New Regional Assets or to refund such Indebtedness.

**“Direct Retail”** refers to Regional Water System capital or operating expenditures that are incurred to provide water service solely to Retail Customers.

**“Direct Wholesale”** refers to Regional Water System capital or operating expenditures that are incurred to provide water service solely to one or more Wholesale Customers.

**“Drought”** means a water shortage caused by lack of precipitation, as reflected in resolutions of the Commission calling for voluntary or mandatory water rationing based on evaluation of water stored or otherwise available to the Regional Water System, whether or not the Commission declares a water shortage emergency pursuant to Water Code §§ 350 et seq., as amended from time to time.

**“Effective Date”** refers to the date this Agreement will become effective in accordance with the terms of Section 1.03.

**“Emergency”** means a sudden, non-drought event, such as an earthquake, failure of Regional Water System infrastructure or other catastrophic event or natural disaster that results in an insufficient supply of water available to the Retail or Wholesale Service Areas for basic human consumption, firefighting, sanitation, and fire protection.

**“Encumbrance”** or **“Encumber”** refers to the process by which the City Controller certifies the availability of amounts previously appropriated by the Commission for specifically identified SFPUC capital projects performed either by third parties or through work orders to other City departments.

**“Environmental Enhancement Surcharge”** means the surcharge to be imposed by the SFPUC on individual parties to this Agreement whose use exceeds their Interim Supply Allocation when the collective use of water by all parties to this Agreement is in excess of the Interim Supply Limitation.

**“ERRP”** refers to a SFPUC document entitled *Emergency Response and Recovery Plan: Regional Water System* (“ERRP”) dated August 23, 2003, and updated November 2006.

**“Excess Use Charges”** are monthly charges set by the SFPUC, in the form of multipliers, that are applied to the Wholesale Customer water rates during times of mandatory rationing if a Wholesale Customer's water usage is greater than its shortage allocation. Excess Use Charges are further described in Section 4 of the Tier 1 Shortage Plan (Attachment H).

**“Existing Assets”** refers to Regional and Hetch Hetchy Water-Only and Water-Related capital assets plant in service as of June 30, 2009.

**“Force Majeure Event”** means an event not the fault of, and beyond the reasonable control of, the party claiming excuse which makes it impossible or extremely impracticable for such party to perform obligations imposed on it by this Agreement, by virtue of its effect on physical facilities and their operation or employees essential to such performance. Force Majeure Events include (a) an “act of God” such as an earthquake, flood, earth movement, or similar catastrophic event, (b) an act of the public enemy, terrorism, sabotage, civil disturbance or similar event, (c) a strike, work stoppage, picketing or similar concerted labor action, (d) delays in construction caused by unanticipated negligence or breach of contract by a third party or inability to obtain essential materials after diligent and timely efforts; or (e) an order or regulation issued by a federal or state regulatory agency after the Effective Date or a judgment or order entered by a federal or state court after the Effective Date.

**“Fundamental Rights”** of Wholesale Customers are their status as parties to this Agreement, their allocation of water recognized in Section 3.02, their protection against arbitrary, unreasonable, or unjustly discriminatory rates provided in Section 6.04, and any specific rights described in Article 9.

**“Hetch Hetchy Enterprise”** refers to Hetch Hetchy Water and Power Enterprise, a SFPUC operating department.



**“Include”** and its variants mean “including but not limited to” whenever used in this Agreement, regardless of whether or not it is capitalized.

**“Indebtedness”** includes revenue bonds, bond anticipation notes, certificates of participation (excluding certificates of participation towards which SFPUC contributes debt service as an operating expense), and commercial paper.

**“Individual Water Sales Contract”** refers to the contracts between each Wholesale Customer and San Francisco contemplated in Section 9.01 that details customer-specific matters such as location of service connections, service area maps and other matters specific to that customer.

**“Individual Supply Guarantee”** refers to each Wholesale Customer’s share of the Supply Assurance, as shown in Attachment C.

**“Interim Supply Allocation”** refers to each Wholesale Customer’s share, to be established by the SFPUC pursuant to Section 4.02, of the Interim Supply Limitation.

**“Interim Supply Limitation”** refers to the 265 MGD annual average limitation on water deliveries until December 31, 2018 from Regional Water System watersheds imposed by the SFPUC in its approval of the WSIP in Resolution Number 08-0200 dated October 30, 2008.

**“Joint,”** when used in connection with Hetch Hetchy Enterprise assets or expenses, refers to assets used or expenses incurred in providing both water supply (“Water-Related”) and in the generation and transmission of electrical energy (“Power-Related”).

**“Local System Water”** refers to Regional Water System water supplies developed in San Mateo, Alameda and Santa Clara Counties or otherwise not produced by the Hetch Hetchy Enterprise under rights of way granted by the Raker Act.

**“MGD”** refers to an average flow rate of one million gallons per day over a specific time period, often a year. For example, one MGD is equal to 365 million gallons per year or 1,120 acre feet per year.

**“Net Annual Debt Service”** refers to debt service less payments made from proceeds of Indebtedness (e.g., capitalized interest), earnings on bond proceeds (e.g., reserve fund earnings) used to pay Debt Service, and interest paid from renewed commercial paper, or from reserve fund liquidation.

**“New Assets”** refers to Regional and Hetch Hetchy Water-Only and Water-Related capital assets added to Regional Water System plant in service after June 30, 2009.

**“New Regional Assets”** refers to New Assets placed in service on or after July 1, 2009 that are used and useful in delivering water to Wholesale Customers. The following four categories comprise New Regional Assets:

1. Water Enterprise Regional Assets
2. Water Enterprise Direct Wholesale Assets
3. Hetch Hetchy Water Only Assets
4. Water-Related portion (45 percent) of Hetch Hetchy Joint Assets

**“Power-Only,”** when used with reference to Hetch Hetchy Enterprise capital costs and operating and maintenance expenses, means capital costs and expenses that are incurred solely for the construction and operation of assets used to generate and transmit electrical energy.

**“Power-Related”** refers to the power related portion (55%) of Joint Hetch Hetchy Enterprise assets or expenses.

**“Prepayment”** refers to payments of principal and interest amounts not due in the year the prepayment is made, as described in Section 5.03.

**“Proportional Annual Use”** means the shares of deliveries from the Regional Water System used by City Retail Customers and by the Wholesale Customers in a fiscal year, expressed as a percentage. The percentages of annual use are calculated each year as described in Section B of Attachment J and are shown on lines 10 and 11 of Table 1 of that Attachment.

**“Proportional Water Use”** refers the general principle of allocating Regional Water System costs based on the relative purchases of water by Retail and Wholesale Customers.

**“Regional,”** when used with reference to Water Enterprise capital assets and operating expenses, refers to assets and expenses that benefit Wholesale and Regional Customers.

**“Regional Water System”** means the water storage, transmission and treatment system operated by the SFPUC in Tuolumne, Stanislaus, San Joaquin, Alameda, Santa Clara, San Mateo and San Francisco counties, including projects constructed under the WSIP, but excluding Direct Retail and Direct Wholesale assets.

**“Retail Customers”** means any customer that purchases water from San Francisco that is not a Wholesale Customer, whether located inside or outside of San Francisco.

**“Retail Service Area”** means the areas where SFPUC sells water to Retail Customers.

**“Retail Water”** means water sold by the SFPUC to its Retail Customers within and outside San Francisco.

**“San Francisco”** refers to the City and County of San Francisco.

**“SFPUC”** refers to the San Francisco Public Utilities Commission as an operating department of San Francisco, the General Manager of which reports to the Commission.

**“SFPUC Bureaus”** refers to the portions of the SFPUC that provide support services to the SFPUC Operating Departments. These presently consist of the General Manager’s Office, Business Services, and External Affairs.

**“SFPUC Operating Departments”** refers to the Water, Hetch Hetchy and Wastewater Program Enterprises under the control and management of the SFPUC pursuant to the San Francisco Charter.

**“Substantially Expended”**: A bond issue series is substantially expended when 98% of the proceeds and investment earnings contributed to the project fund have been expended.

**“Supply Assurance”** means the 184 MGD maximum annual average metered supply of water dedicated by San Francisco to public use in the Wholesale Service Area (not including San Jose and Santa Clara) in the 1984 Agreement and Section 3.01 of this Agreement.

**“Term”** means the 25-year term commencing July 1, 2009, including one or both 5-year extensions authorized by Section 2.02.A and B.

**“Tier 1 Shortage Plan”** refers to the Water Shortage Allocation Plan (Attachment H) adopted by the SFPUC and the Wholesale Customers in conjunction with this Agreement describing the method for allocating water between the SFPUC and the Wholesale Customers collectively for shortages of up to 20% of deliveries from the Regional Water System, as amended from time-to-time.

**“Water Enterprise”** refers to the San Francisco Water Department (SFWD), an SFPUC Operating Department.

**“Water Management Charge”** refers to the charge collected by San Francisco on behalf of BAWSCA for local water resource development in the Wholesale Service Area pursuant to Section 3.06 of this Agreement.

**“Water-Only,”** when used with reference to Hetch Hetchy Enterprise capital costs and operating and maintenance expenses, means capital costs and expenses that are incurred solely for the construction and operation of assets used to protect water quality or to provide for the delivery of water for consumptive purposes.

**“Water-Related”** refers to the water related portion (45%) of Joint Hetch Hetchy Enterprise assets or expenses.

**“Water Supply Development Report”** refers to the annual report prepared pursuant to Section 4.05, and submitted to the Commission for purposes of estimating whether Regional Water System demand will be within the Interim Supply Limitation by June 30, 2018.

**“Wheeling Statute”** refers to Article 4 of Chapter 11 of the California Water Code, as amended from time to time.

**“Wholesale Capital Fund”** is the account established by the SFPUC for deposit of Wholesale Customer revenue that is used to fund the wholesale share of revenue-funded New Regional Assets, as described in Section 6.08.

**“Wholesale Customer” or “Customers”** means one or more of the 27 water customers identified in Section 1.01 that are contracting for purchase of water from San Francisco pursuant to this Agreement.

**“Wholesale Revenue Coverage”** refers to the additional dollar amount included in wholesale rates each fiscal year that is charged to Wholesale Customers by the SFPUC for their proportionate share of Debt Service coverage under Section 6.06.A.

**“Wholesale Revenue Coverage Reserve”** refers to the account established by the SFPUC for deposit of Wholesale Revenue Coverage under Section 6.06.B.

**“Wholesale Revenue Requirement”** means the calculated Wholesale Customer portion of SFPUC Regional Water System capital and operating costs as determined in accordance with the provisions of Article 5 of this Agreement, formerly called the “Suburban Revenue Requirement” in the 1984 Agreement.

**“Wholesale Service Area”** means the combined service areas of the Wholesale Customers, as delineated on the service area maps attached to each Individual Water Sales Contract.

**“WSIP”** refers to the Water System Improvement Program approved by the Commission in Resolution No. 08-0200 on October 30, 2008, as amended from time to time.

**ATTACHMENT B**

**WHOLESALE CUSTOMER REGIONAL WATER SYSTEM PURCHASES FY 2007-2008\***

*(To determine 75% approval process for Section 1.02)*

<b>WHOLESALE CUSTOMER</b>	<b>MGD</b>
Alameda County Water District	12.90
California Water Service Company	37.72
City of Brisbane	0.23
City of Burlingame	4.50
City of Daly City	4.49
City of East Palo Alto	2.16
City of Hayward	19.33
City of Menlo Park	3.69
City of Millbrae	2.46
City of Milpitas	6.95
City of Mountain View	10.51
City of Palo Alto	12.72
City of Redwood City	11.01
City of San Bruno	1.86
City of San Jose	4.80
City of Santa Clara	3.49
City of Sunnyvale	10.52
Coastside County Water District	2.08
Estero Municipal Improvement District	5.51
Guadalupe Valley Municipal Improvement District	0.40
Mid-Peninsula Water District	3.25
North Coast County Water District	3.25
Purissima Hills Water District	2.31
Skyline County Water District	0.16
Stanford University	2.31
Town of Hillsborough	3.83
Westborough Water District	0.95
<b>Total</b>	<b>173.39</b>

\*Source: SFPUC Commercial Division Records

Note: FY 2007-2008 was a Leap Year with 366 days.

**ATTACHMENT C**  
**INDIVIDUAL SUPPLY GUARANTEES**

<b>WHOLESALE CUSTOMER</b>	<b>(1)</b> <b>100 Cubic Feet *</b>	<b>(2)</b> <b>MGD</b>
Alameda County Water District	6,714,439	13.760
California Water Service Company**	17,320,807	35.499
City of Brisbane	224,435	0.460
City of Burlingame	2,553,753	5.234
City of Daly City	2,094,386	4.292
City of East Palo Alto	957,813	1.963
City of Menlo Park	2,174,231	4.456
City of Millbrae	1,538,120	3.152
City of Milpitas	4,504,533	9.232
City of Mountain View	6,567,648	13.460
City of Palo Alto	8,331,697	17.075
City of Redwood City	5,333,115	10.930
City of San Bruno	1,583,899	3.246
City of Sunnyvale	6,138,122	12.580
Coastside County Water District	1,061,453	2.175
Estero Municipal Improvement District	2,878,807	5.900
Guadalupe Valley Municipal Improvement District	254,436	0.521
Mid-Peninsula Water District	1,898,707	3.891
North Coast County Water District	1,872,928	3.838
Purissima Hills Water District	792,832	1.625
Skyline County Water District	88,537	0.181
Stanford University	1,479,764	3.033
Town of Hillsborough	1,995,644	4.090
Westborough Water District	644,172	1.320
<b>Total:***</b>	<b>79,004,278</b>	<b>161.913</b>

\* 100 Cubic feet equals MGD divided by 0.00000204946. Figures in this column are calculated using unrounded MGD values and are more precise than the figures listed in column (2).

\*\* Includes quantities from Los Trancos County Water District and Palomar Park Water District.

\*\*\* Total does not equal sum of MGD figures due to rounding. Total is not 184 MGD because table does not include the City of Hayward.

\*\*\*\* Cordilleras Mutual Water Association is not a party to this Agreement, but it has its own Supply Assurance of 3,007 hundred cubic feet (CCF).

## ATTACHMENT D

### PROCEDURE FOR PRO-RATA REDUCTION OF WHOLESALE CUSTOMERS' INDIVIDUAL SUPPLY GUARANTEES (SECTION 3.02).

The 23 wholesale customers listed on Attachment C have individual Supply Guarantees that total approximately 161.9 MGD.

If the amount of water purchased from SFPUC by Hayward exceeds 22.1 MGD for three consecutive fiscal years, the individual Supply Guarantees of each of those 23 wholesale customers will be reduced as described below.

#### STEP ONE:

Obtain the average annual excess purchases during the three fiscal year period. For example, assume Hayward uses 25.0 MGD, 24.2 MGD and 26.0 MGD in three consecutive years. The average annual excess use for that period is 2.9 MGD; calculated as follows:

$$\frac{[25.0 \text{ MGD} + 24.2 \text{ MGD} + 26.0 \text{ MGD}]}{3} + 161.9 \text{ MGD} = 186.9 \text{ MGD}$$

$$186.9 \text{ MGD} - 184.0 \text{ MGD} = 2.9 \text{ MGD}$$

#### STEP TWO:

Allocate the excess purchases among the 23 Wholesale Customers in proportion to each customer's Supply Guarantee as a percentage of the total Supply Guarantees (161.9 MGD as of FY 2009-10).

For example, assume that Wholesale Customer A's Supply Guarantee is 12.0 MGD. Wholesale Customer A's percentage share of the total individual supply guarantees is 0.074, calculated as follows:

$$\frac{12.0 \text{ MGD}}{161.9 \text{ MGD}} = 0.074$$

and its share of the excess use is 0.22 MGD, calculated as follows:

$$2.9 \text{ MGD} \times 0.074 = 0.22 \text{ MGD}$$



**STEP THREE:**

Determine Wholesale Customer's adjusted Supply Guarantee by subtracting the result of Step Two from the Wholesale Customer's Supply Guarantee:

$$12 \text{ MGD} - 0.22 \text{ MGD} = 11.78 \text{ MGD}$$

\* \* \* \* \*

Adjustments will be made at intervals comprised of distinct three-year periods of use by Hayward in excess of 22.1 MGD rather than overlapping periods. For example, assuming that the first adjustment were to occur in FY 2014-15 (based on use during FY 2011-12, FY 2012-13 and FY 2013-14), a second adjustment will not occur earlier than three full fiscal years thereafter (i.e., FY 2017-18, based on use by Hayward in FY 2014-15, FY 2015-16 and FY 2016-17). The figures used in the second and subsequent adjustments will reflect previous adjustments. For example, a second adjustment will use 158.9 MGD as the total of individual Supply Guarantees (161.6 MGD - 2.7 MGD = 158.9 MGD).

For purposes of simplicity, the volumetric units used in the foregoing example are MGD. For actual adjustment calculations, the unit employed will be hundreds of cubic feet ("ccf"), the unit by which the SFPUC measures water deliveries for billing purposes.

The procedure described and illustrated above is independent of and unrelated to the establishment by the SFPUC of Interim Supply Limitations described in Article 4.

**ATTACHMENT E**

**MINIMUM ANNUAL PURCHASE QUANTITIES**

**(Section 3.07.C)**

<b>AGENCY</b>	<b>MINIMUM ANNUAL PURCHASE QUANTITY (IN MGD)</b>
Alameda County Water District	7.648
City of Milpitas	5.341
City of Mountain View	8.930
City of Sunnyvale	8.930

**ATTACHMENT F**

**WATER SALES CONTRACT**

This Contract, dated as of \_\_\_\_\_, 2009, is entered into by and between the City and County of San Francisco ("San Francisco") and

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_ ("Customer").

**RECITALS**

San Francisco and the Customer have entered into a Water Supply Agreement ("WSA"), which sets forth the terms and conditions under which San Francisco will continue to furnish water for domestic and other municipal purposes to Customer and to other Wholesale Customers. The WSA contemplates that San Francisco and each individual Wholesale Customer will enter into an individual contract describing the location or locations at which water will be delivered to each customer by the San Francisco Public Utilities Commission ("SFPUC"), the customer's service area within which water so delivered is to be sold, and other provisions unique to the individual purchaser. This Water Sales Contract is the individual contract contemplated by the WSA.

**AGREEMENTS OF THE PARTIES**

1. **Incorporation of the WSA**

The terms and conditions of the WSA are incorporated into this Contract as if set forth in full herein.

2. **Term**

Unless explicitly provided to the contrary in Article 9 of the WSA, the term of this Contract shall be identical to that provided in Section \_\_\_\_ of the WSA.

3. Service Area

Water delivered by San Francisco to the Customer may be used or sold within the service area shown on the map designated Exhibit A attached hereto. Except as provided in Section \_\_\_ of the WSA, Customer shall not deliver or sell any water provided by San Francisco outside of this area without the prior written consent of the General Manager of the SFPUC.

4. Location and Description of Service Connections

Sale and delivery of water to Customer will be made through a connection or connections to the SFPUC Regional Water System at the location or locations shown on Exhibit A attached hereto and with the applicable present account number, description, connection size, and meter size shown on Exhibit B attached hereto.

5. Interties With Other Systems.

Customer maintains interties with neighboring water systems at the location or locations shown on Exhibit A attached hereto and with the connection size(s) as shown on Exhibit C attached hereto.

6. Billing and Payment

San Francisco shall compute the amounts of water delivered and bill Customer therefor on a monthly basis. The bill shall show the separate components of the charge (e.g., service, consumption, demand). Customer shall pay the amount due within thirty (30) days after receipt of the bill.

If Customer disputes the accuracy of any portion of the water bill it shall (a) notify the General Manager of the SFPUC in writing of the specific nature of the dispute and (b) pay the undisputed portion of the bill within thirty (30) days after receipt. Customer shall meet with the General Manager of the SFPUC or a delegate to discuss the disputed portion of the bill.

7., 8., 9... Other Specialized Provisions

[Certain Wholesale Customers will require additional provisions in their individual contracts addressed to issues such as minimum and/or maximum water delivery quantities, prior authorized wheeling arrangements, maximum expansion of the service area, etc. These and other provisions addressing issues unique to the particular Wholesale Customer may be added here, subject to the provisions of Section 9.01 of the WSA.]

IN WITNESS WHEREOF, the parties hereto have executed this Contract, to become effective upon the effectiveness of the WSA, by their duly authorized representatives.

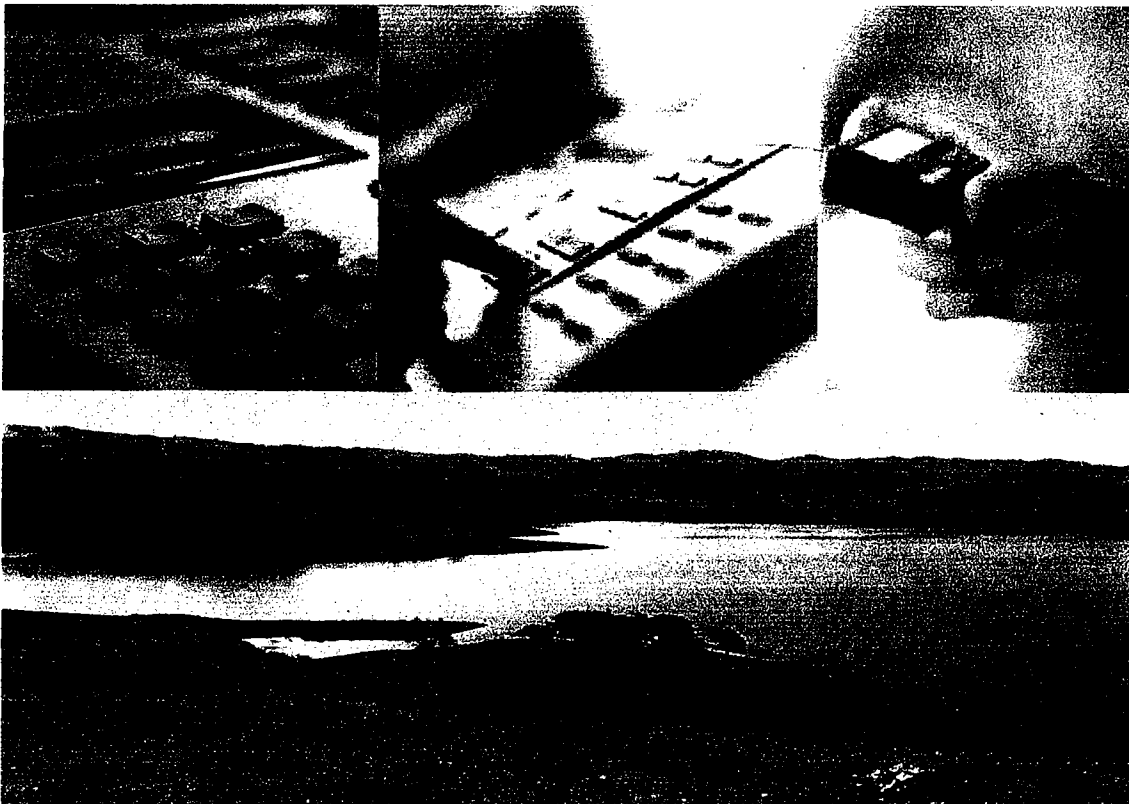
<p>CITY AND COUNTY OF SAN FRANCISCO Acting by and through its Public Utilities Commission</p> <p>BY _____ Edward Harrington General Manager</p>	<p>Date: _____, 2009</p>
<p>NAME OF WHOLESALE CUSTOMER</p> <p>BY _____ Name: Title:</p>	<p>Date: _____, 2009</p>

**Note:** This attachment is provided for the convenience of the prospective parties to the Water Supply Agreement and associated individual contracts. The format may be modified as desired by San Francisco and Wholesale Customer, subject to Section 9.01 of the WSA.



ATTACHMENT G

Water Quality  
Notification and Communications Plan  
Revision 4  
January 2006



Updated by:  
Water Quality Engineering  
Olivia Chen Consultants, Inc.

# ATTACHMENT H

## WATER SHORTAGE ALLOCATION PLAN

This Interim Water Shortage Allocation Plan ("Plan") describes the method for allocating water between the San Francisco Public Utilities Commission ("SFPUC") and the Wholesale Customers collectively during shortages caused by drought. The Plan implements a method for allocating water among the individual Wholesale Customers which has been adopted by the Wholesale Customers. The Plan includes provisions for transfers, banking, and excess use charges. The Plan applies only when the SFPUC determines that a system-wide water shortage due to drought exists, and all references to "shortages" and "water shortages" are to be so understood. This Plan was adopted pursuant to Section 7.03(a) of the 1984 Settlement Agreement and Master Water Sales Contract and has been updated to correspond to the terminology used in the June 2009 Water Supply Agreement between the City and County of San Francisco and Wholesale Customers in Alameda County, San Mateo County and Santa Clara County ("Agreement").

### SECTION 1. SHORTAGE CONDITIONS

**1.1. Projected Available SFPUC Water Supply.** The SFPUC shall make an annual determination as to whether or not a shortage condition exists. The determination of projected available water supply shall consider, among other things, stored water, projected runoff, water acquired by the SFPUC from non-SFPUC sources, inactive storage, reservoir losses, allowance for carryover storage, and water bank balances, if any, described in Section 3.

**1.2 Projected SFPUC Purchases.** The SFPUC will utilize purchase data, including volumes of water purchased by the Wholesale Customers and by Retail Customers (as those terms are used in the Agreement) in the year immediately prior to the drought, along with other available relevant information, as a basis for determining projected system-wide water purchases from the SFPUC for the upcoming year.

**1.3. Shortage Conditions.** The SFPUC will compare the available water supply (Section 1.1) with projected system-wide water purchases (Section 1.2). A shortage condition exists if the SFPUC determines that the projected available water supply is less than projected system-wide water purchases in the upcoming Supply Year (defined as the period from July 1 through June 30). When a shortage condition exists, SFPUC will determine whether voluntary or mandatory actions will be required to reduce purchases of SFPUC water to required levels.

**1.3.1 Voluntary Response.** If the SFPUC determines that voluntary actions will be sufficient to accomplish the necessary reduction in water use throughout its service area, the SFPUC and the Wholesale Customers will make good faith efforts to reduce their water purchases to stay within their annual shortage allocations and associated monthly water use budgets. The SFPUC will not impose excess use charges during periods of voluntary rationing, but may suspend the prospective accumulation of water bank credits, or impose a ceiling on further accumulation of bank credits, consistent with Section 3.2.1 of this Plan.

**1.3.2 Mandatory Response.** If the SFPUC determines that mandatory actions will be required to accomplish the necessary reduction in water use in the SFPUC service area, the SFPUC may implement excess use charges as set forth in Section 4 of this Plan.

**1.4. Period of Shortage.** A shortage period commences when the SFPUC determines that a water shortage exists, as set forth in a declaration of water shortage emergency issued by the SFPUC pursuant to California Water Code Sections 350 et seq. Termination of the water shortage emergency will be declared by resolution of the SFPUC.

## SECTION 2. SHORTAGE ALLOCATIONS

**2.1. Annual Allocations between the SFPUC and the Wholesale Customers.** The annual water supply available during shortages will be allocated between the SFPUC and the collective Wholesale Customers as follows:

Level of System Wide Reduction in Water Use Required	Share of Available Water	
	SFPUC Share	Wholesale Customers Share
5% or less	35.5%	64.5%
6% through 10%	36.0%	64.0%
11% through 15%	37.0%	63.0%
16% through 20%	37.5%	62.5%

The water allocated to the SFPUC shall correspond to the total allocation for all Retail Customers.

**2.2. Annual Allocations among the Wholesale Customers.** The annual water supply allocated to the Wholesale Customers collectively during system wide shortages of 20 percent or less will be apportioned among them based on a methodology adopted by all of the Wholesale Customers, as described in Section 3.11(C) of the Agreement. In any year for which the methodology must be applied, the Bay Area Water Supply and Conservation Agency (“BAWSCA”) will calculate each Wholesale Customer’s individual percentage share of the amount of water allocated to the Wholesale Customers collectively pursuant to Section 2.1. Following the declaration or reconfirmation of a water shortage emergency by the SFPUC, BAWSCA will deliver to the SFPUC General Manager a list, signed by the President of BAWSCA’s Board of Directors and its General Manager, showing each Wholesale Customer together with its percentage share and stating that the list has been prepared in accordance with the methodology adopted by the Wholesale Customers. The SFPUC shall allocate water to each Wholesale Customer, as specified in the list. The shortage allocations so established may be transferred as provided in Section 2.5 of this Plan. If BAWSCA or all Wholesale Customers do not provide the SFPUC with individual allocations, the SFPUC may make a final allocation decision after first meeting and discussing allocations with BAWSCA and the Wholesale Customers.

The methodology adopted by the Wholesale Customers utilizes the rolling average of each individual Wholesale Customer’s purchases from the SFPUC during the three immediately



preceding Supply Years. The SFPUC agrees to provide BAWSCA by November 1 of each year a list showing the amount of water purchased by each Wholesale Customer during the immediately preceding Supply Year. The list will be prepared using Customer Service Bureau report MGT440 (or comparable official record in use at the time), adjusted as required for any reporting errors or omissions, and will be transmitted by the SFPUC General Manager or his designee.

**2.3. Limited Applicability of Plan to System Wide Shortages Greater Than Twenty**

**Percent.** The allocations of water between the SFPUC and the Wholesale Customers collectively, provided for in Section 2.1, apply only to shortages of 20 percent or less. The SFPUC and Wholesale Customers recognize the possibility of a drought occurring which could create system-wide shortages greater than 20 percent despite actions taken by the SFPUC aimed at reducing the probability and severity of water shortages in the SFPUC service area. If the SFPUC determines that a system wide water shortage greater than 20 percent exists, the SFPUC and the Wholesale Customers agree to meet within 10 days and discuss whether a change is required to the allocation set forth in Section 2.1 in order to mitigate undue hardships that might otherwise be experienced by individual Wholesale Customers or Retail Customers. Following these discussions, the Tier 1 water allocations set forth in Section 2.1 of this Plan, or a modified version thereof, may be adopted by mutual written consent of the SFPUC and the Wholesale Customers. If the SFPUC and Wholesale Customers meet and cannot agree on an appropriate Tier 1 allocation within 30 days of the SFPUC's determination of water shortage greater than 20 percent, then (1) the provisions of Section 3.11(C) of the Agreement will apply, unless (2) all of the Wholesale Customers direct in writing that a Tier 2 allocation methodology agreed to by them be used to apportion the water to be made available to the Wholesale Customers collectively, in lieu of the provisions of Section 3.11(C).

The provisions of this Plan relating to transfers (in Section 2.5), banking (in Section 3), and excess use charges (in Section 4) shall continue to apply during system-wide shortages greater than 20 percent.

**2.4. Monthly Water Budgets.** Within 10 days after adopting a declaration of water shortage emergency, the SFPUC will determine the amount of Tier 1 water allocated to the Wholesale Customers collectively pursuant to Section 2.1. The SFPUC General Manager, using the Tier 2 allocation percentages shown on the list delivered by BAWSCA pursuant to Section 2.2, will calculate each Wholesale Customer's individual annual allocation. The SFPUC General Manager, or his designee, will then provide each Wholesale Customer with a proposed schedule of monthly water budgets based on the pattern of monthly water purchases during the Supply Year immediately preceding the declaration of shortage (the "Default Schedule"). Each Wholesale Customer may, within two weeks of receiving its Default Schedule, provide the SFPUC with an alternative monthly water budget that reschedules its annual Tier 2 shortage allocation over the course of the succeeding Supply Year. If a Wholesale Customer does not deliver an alternative monthly water budget to the SFPUC within two weeks of its receipt of the Default Schedule, then its monthly budget for the ensuing Supply Year shall be the Default Schedule proposed by the SFPUC.

Monthly Wholesale Customer water budgets will be derived from annual Tier 2 allocations for purposes of accounting for excess use. Monthly Wholesale Customer water budgets shall be adjusted during the year to account for transfers of shortage allocation under Section 2.5 and

transfers of banked water under Section 3.4.

**2.5. Transfers of Shortage Allocations.** Voluntary transfers of shortage allocations between the SFPUC and any Wholesale Customers, and between any Wholesale Customers, will be permitted using the same procedure as that for transfers of banked water set forth in Section 3.4. The SFPUC and BAWSCA shall be notified of each transfer. Transfers of shortage allocations shall be deemed to be an emergency transfer and shall become effective on the third business day after notice of the transfer has been delivered to the SFPUC. Transfers of shortage allocations shall be in compliance with Section 3.05 of the Agreement. The transferring parties will meet with the SFPUC, if requested, to discuss any effect the transfer may have on its operations.

### SECTION 3. SHORTAGE WATER BANKING

**3.1. Water Bank Accounts.** The SFPUC shall create a water bank account for itself and each Wholesale Customer during shortages in conjunction with its resale customer billing process. Bank accounts will account for amounts of water that are either saved or used in excess of the shortage allocation for each agency; the accounts are not used for tracking billings and payments. When a shortage period is in effect (as defined in Section 1.4), the following provisions for bank credits, debits, and transfers shall be in force. A statement of bank balance for each Wholesale Customer will be included with the SFPUC's monthly water bills.

**3.2. Bank Account Credits.** Each month, monthly purchases will be compared to the monthly budget for that month. Any unused shortage allocation by an agency will be credited to that agency's water bank account. Credits will accumulate during the entire shortage period, subject to potential restrictions imposed pursuant to Section 3.2.1. Credits remaining at the end of the shortage period will be zeroed out; no financial or other credit shall be granted for banked water.

**3.2.1. Maximum Balances.** The SFPUC may suspend the prospective accumulation of credits in all accounts. Alternatively, the SFPUC may impose a ceiling on further accumulation of credits in water bank balances based on a uniform ratio of the bank balance to the annual water allocation. In making a decision to suspend the prospective accumulation of water bank credits, the SFPUC shall consider the available water supply as set forth in Section 1.1 of this Plan and other reasonable, relevant factors.

**3.3. Account Debits.** Each month, monthly purchases will be compared to the budget for that month. Purchases in excess of monthly budgets will be debited against an agency's water bank account. Bank debits remaining at the end of the fiscal year will be subject to excess use charges (see Section 4).

**3.4. Transfers of Banked Water.** In addition to the transfers of shortage allocations provided for in Section 2.5, voluntary transfers of banked water will also be permitted between the SFPUC and any Wholesale Customer, and among the Wholesale Customers. The volume of transferred water will be credited to the transferee's water bank account and debited against the transferor's water bank account. The transferring parties must notify the SFPUC and BAWSCA of each transfer in writing (so that adjustments can be made to bank accounts), and will meet with the SFPUC, if requested, to discuss any affect the transfer may have on SFPUC operations. Transfers of banked water shall be deemed to be an emergency transfer and shall become effective on the third business day after notice of the transfer has been delivered to the SFPUC.

If the SFPUC incurs extraordinary costs in implementing transfers, it will give written notice to the transferring parties within ten (10) business days after receipt of notice of the transfer. Extraordinary costs means additional costs directly attributable to accommodating transfers and which are not incurred in non-drought years nor simply as a result of the shortage condition itself. Extraordinary costs shall be calculated in accordance with the procedures in the Agreement and shall be subject to the disclosure and auditing requirements in the Agreement. In the case of transfers between Wholesale Customers, such extraordinary costs shall be considered to be expenses chargeable solely to individual Wholesale Customers and shall be borne equally by the parties to the transfer. In the case of transfers between the SFPUC and a Wholesale Customer, the SFPUC's share of any extraordinary transfer costs shall not be added to the Wholesale Revenue Requirement.

**3.4.1. Transfer Limitations.** The agency transferring banked water will be allowed to transfer no more than the accumulated balance in its bank. Transfers of estimated prospective banked credits and the "overdrafting" of accounts shall not be permitted. The price of transfer water originally derived from the SFPUC system is to be determined by the transferring parties and is not specified herein. Transfers of banked water shall be in compliance with Section 3.05 of the Agreement.

## **SECTION 4. WHOLESALE EXCESS USE CHARGES**

**4.1. Amount of Excess Use Charges.** Monthly excess use charges shall be determined by the SFPUC at the time of the declared water shortage consistent with the calendar in Section 6 and in accordance with Section 6.03 of the Agreement. The excess use charges will be in the form of multipliers applied to the rate in effect at the time the excess use occurs. The same excess use charge multipliers shall apply to the Wholesale Customers and all Retail Customers. The excess use charge multipliers apply only to the charges for water delivered at the rate in effect at the time the excess use occurred.

**4.2 Monitoring Suburban Water Use.** During periods of voluntary rationing, water usage greater than a customer's allocation (as determined in Section 2) will be indicated on each SFPUC monthly water bill. During periods of mandatory rationing, monthly and cumulative water usage greater than a Wholesale Customer's shortage allocation and the associated excess use charges will be indicated on each SFPUC monthly water bill.

**4.3. Suburban Excess Use Charge Payments.** An annual reconciliation will be made of monthly excess use charges according to the calendar in Section 6. Annual excess use charges will be calculated by comparing total annual purchases for each Wholesale Customer with its annual shortage allocation (as adjusted for transfers of shortage allocations and banked water, if any). Excess use charge payments by those Wholesale Customers with net excess use will be paid according to the calendar in Section 6. The SFPUC may dedicate excess use charges paid by Wholesale Customers toward the purchase of water from the State Drought Water Bank or other willing sellers in order to provide additional water to the Wholesale Customers. Excess use charges paid by the Wholesale Customers constitute Wholesale Customer revenue and shall be included within the SFPUC's annual Wholesale Revenue Requirement calculation.

## SECTION 5. GENERAL PROVISIONS GOVERNING WATER SHORTAGE ALLOCATION PLAN

**5.1. Construction of Terms.** This Plan is for the sole benefit of the parties and shall not be construed as granting rights to any person other than the parties or imposing obligations on a party to any person other than another party.

**5.2. Governing Law.** This Plan is made under and shall be governed by the laws of the State of California.

**5.3. Effect on Agreement.** This Plan describes the method for allocating water between the SFPUC and the collective Wholesale Customers during system-wide water shortages of 20 percent or less. This Plan also provides for the SFPUC to allocate water among the Wholesale Customers in accordance with directions provided by the Wholesale Customers through BAWSCA under Section 2.2, and to implement a program by which such allocations may be voluntarily transferred among the Wholesale Customers. The provisions of this Plan are intended to implement Section 3.11(C) of the Agreement and do not affect, change or modify any other section, term or condition of the Agreement.

**5.4. Inapplicability of Plan to Allocation of SFPUC System Water During Non-Shortage Periods.** The SFPUC's agreement in this Plan to a respective share of SFPUC system water during years of shortage shall not be construed to provide a basis for the allocation of water between the SFPUC and the Wholesale Customers when no water shortage emergency exists.

**5.5. Termination.** This Plan shall expire at the end of the Term of the Agreement. The SFPUC and the Wholesale Customers can mutually agree to revise or terminate this Plan prior to that date due to changes in the water delivery capability of the SFPUC system, the acquisition of new water supplies, and other factors affecting the availability of water from the SFPUC system during times of shortage.

## SECTION 6. ALLOCATION CALENDAR

**6.1. Annual Schedule.** The annual schedule for the shortage allocation process is shown below. This schedule may be changed by the SFPUC to facilitate implementation.

### **6.1.1**

#### **In All Years**

1. SFPUC delivers list of annual purchases by each Wholesale Customer during the immediately preceding Supply Year
2. SFPUC meets with the Wholesale Customers and presents water supply forecast for the following Supply Year
3. SFPUC issues initial estimate of available water supply
4. SFPUC announces potential first year of drought (if applicable)
5. SFPUC and Wholesale Customers meet upon request to exchange information concerning water availability and projected system-wide purchases
6. SFPUC issues revised estimate of available water supply, and confirms continued potential shortage conditions, if applicable
7. SFPUC issues final estimate of available water supply
  
8. SFPUC determines amount of water available to Wholesale Customers collectively

#### **Target Dates**

- November 1
- February
- February 1
- February 1
- February 1-May 31
- March 1
- April 15<sup>th</sup> or sooner if adequate snow course measurement data is available to form a robust estimate on available water supply for the coming year.
- April 15<sup>th</sup> or sooner if adequate snow course measurement data is available to form a robust estimate on available water supply for the coming year.

#### **In Drought Years**

9. SFPUC formally declares the existence of water shortage emergency (or end of water shortage emergency, if applicable) under Water Code Sections 350 et. seq.
10. SFPUC declares the need for a voluntary or mandatory response
11. BAWSCA submits calculation to SFPUC of individual Wholesale Customers' percentage shares of water allocated to Wholesale Customers collectively
12. SFPUC determines individual shortage allocations, based on BAWSCA's submittal of individual agency percentage shares to SFPUC, and monthly water budgets (Default Schedule)
13. Wholesale Customers submit alternative monthly water budgets (optional)
14. Final drought shortage allocations are issued for the Supply Year beginning July 1 through June 30
15. Monthly water budgets become effective
  
16. Excess use charges indicated on monthly Suburban bills
  
17. Excess use charges paid by Wholesale Customers for prior year

#### **Target Dates**

- April 15-31
- April 15-31
- April 15- 31
- April 25—May 10
- May 8-May 24
- June 1
- July 1
- August 1 (of the beginning year) through June 30 (of the succeeding year)
- August of the succeeding year

**ATTACHMENT I**

**NOT USED**

## ATTACHMENT J

### DEFINITIONS AND FORMULAS FOR CALCULATING PROPORTIONAL ANNUAL WATER USE

#### TABLE OF CONTENTS

This Attachment contains four sections, three figures, and five tables.

Section A:	Water Meters
Section B:	Calculation of Proportional Annual Water Use
Section C:	Data Requirements and Schedule
Section D:	County Line and In-City Terminal Reservoir Meter Calibration and Maintenance
Figure 1:	Locations of SFPUC County-Line Meters and In-City Terminal Reservoirs
Figure 2:	Generalized Schematic of Lake Merced Pump Station
Figure 3:	Locations of System Input and In-Line Meters
Table 1:	Base Usage and Allocation Rates
Table 2:	Locations of SFPUC County-line Meters and In-City Terminal Reservoirs
Table 3:	Locations of SFPUC System Input and In-line Meters
Table 4:	County-line Meters, In-City Terminal Reservoirs and Associated Metering Equipment
Table 5:	Meter Calibration and Maintenance Frequency

Table 1 presents the format for the water usage and allocation rate calculations for reference and to illustrate the definitions and formulas described in Sections A through C. Tables 2 and 3 list the meters whose locations are shown on Figures 1 and 3, respectively. Table

4 identifies the type of meter and associated metering equipment for the County-line Meters and Terminal Reservoirs. Table 5 identifies the meter calibration and maintenance frequency for the meters and equipment listed in Table 4.

## SECTION A. WATER METERS

### 1. General

The Agreement provides that certain operating and maintenance expenses and the capital cost of certain categories of utility plant in service are to be allocated between San Francisco and the Wholesale Customers on the basis of proportionate annual usage of the Regional Water System. The purpose of this Attachment is to describe the meters and illustrate the method by which proportionate annual usage will be calculated.

### 2. Units of Measurement, Rounding, Conversion

The SFPUC will compile the usage data required to complete Table 1 annually. The units of measurement and conventions for converting and rounding will be as follows.

The data in the Table 1 will be presented, and the calculations contemplated by this Attachment shown, in units of millions of gallons per day (mgd), rounded to the nearest tenth of an mgd. Percentages (e.g., the City and Wholesale usage rates) shall be carried to two digits to the right of the decimal point and reduction factors shall be carried to four digits to the right of the decimal point. Data compiled by the SFPUC in units of hundreds of cubic feet per year (ccf) shall be converted to mgd by multiplying hundreds of cubic feet per year by 0.0000020493 (or  $2.0493 \times 10^{-6}$ ) for non-leap years and 0.0000020437 (or  $2.0437 \times 10^{-6}$ ) for leap years.

In rounding, if the rightmost digit dropped is 0 through 4, the preceding digit shall be left unchanged; if the rightmost digit dropped is 5 through 9, the preceding digit shall be increased by 1.



### 3. Location of Meters/Gauges

The SFPUC presently maintains meters and gauges that have been used to determine the proportionate usage of the Regional Water System, in accordance with the methods and calculations described in Exhibit J to the 1984 contract between San Francisco and the Wholesale Customers. These meters consist of “County-Line Meters,” “In-City Terminal Reservoir Meters” and “System Input and In-line Meters” as described in the following subsections. As new capital improvement projects are designed and constructed by the SFPUC, it may be necessary for new meters to be installed to ensure continued accurate determinations of the proportionate usage of the Regional Water System. “Planned meters” are included in the following subsections where planned capital improvement projects are likely to require the installation of additional meters.

#### a. County-line Meters

The SFPUC presently maintains meters at or near the San Mateo-San Francisco County line to measure flow through all transmission pipelines entering the City (“County-line Meters”). The existing and planned County-line Meters are listed in Table 2 and shown on Figures 1 and 2. Additional details pertaining to the County-line meters located at the Lake Merced Pump Station, and specifically to water deliveries from the pump station to Sunset Reservoir, Sutro Reservoir, and Lake Merced are provided below.

##### (1) County-Line deliveries to Sunset and Sutro Reservoirs

Water delivered to the City through the Sunset Supply Pipeline may be pumped from the Lake Merced Pump Station to either Sunset Reservoir or Sutro Reservoir located within the City. When water is pumped from the Lake Merced Pump Station to both Sunset and Sutro reservoirs simultaneously, the recording instrumentation on the Sunset and Sutro venturi meters are designed to record flows through both meters.

When water is pumped to Sutro Reservoir only (typically utilizing Pump No. 4 at the

Lake Merced Pump Station), the source water is from the Sunset Reservoir (not the County-line), and the direction of flow through the Sunset venturi meter is reversed. Under this pumping scenario, the recording instrumentation on the Sunset and Sutro venturi meters are designed to not record flow on their respective recorders such that the in-City transfer of water between Sunset and Sutro Reservoirs is not included as a County-line delivery to the City. Figure 2 provides a generalized schematic of the Lake Merced Pump Station and the typical direction of flow from the County-line, through the pump station.

(2) County-line deliveries to Lake Merced

In order to raise and maintain water levels in Lake Merced, the SFPUC occasionally delivers water directly from the Regional Water System to Lake Merced. Deliveries from the Regional Water System to Lake Merced are accomplished at the Lake Merced Pump Station. The procedure involves operating valves on the suction side of Sunset Pump No. 2 such that water may flow by gravity in the Sunset Supply Pipeline, from San Mateo County, across the County-line and into San Francisco, through Lake Merced Pump Station and into the Lake Merced wet well. A 16-inch pipeline connection on the suction side of Sunset Pump No. 2 allows for deliveries of water to the wet well (see Figure 2). Water deliveries from the Regional Water System to Lake Merced are considered County-line deliveries and an in-City usage in the calculation of water allocation rates.

b. In-City Terminal Reservoirs

Water usage by the City includes water deliveries from the SFPUC's "terminal reservoirs." The terminal reservoirs are: 1) Sunset Reservoir, 2) University Mound Reservoir, and 3) Merced Manor Reservoir. The terminal reservoirs are shown on Figure 1.

c. System Input and In-Line Meters

The SFPUC presently measures water flow into and through the Regional System utilizing "System Input and In-Line Meters." The existing and planned System Input and In-Line Meters are listed in Table 3 and shown on Figure 3.

d. Wholesale Customer Meters and City Retail Customer Meters Located Outside the Boundaries of the City

The SFPUC presently measures water deliveries from the Regional Water System to its Wholesale Customers at various locations where the water delivery systems of the individual Wholesale Customers tie into the Regional Water System. The meters at these locations are referred to as the Wholesale Customers' "master meters." The SFPUC also measures water deliveries from the Regional Water System to other customers located outside of the boundaries of the City that are not Wholesale Customers. Water deliveries to the Wholesale Customers and Retail Customers outside the City's boundaries that receive water from the Regional Water System are accounted for by the SFPUC's Customer Service Division as described in Section B.

4. Replacement and Relocation of Meters, Gauges, and Recording Devices.

The SFPUC presently equips all of its large venturi meters with differential pressure transmitters. The smaller meters utilize other methods and equipment to register and record flows. The SFPUC will maintain the meters, gauges, and recording devices described above in subsections (a), (b), (c), and (d) unless and until such meters, gauges, and recording devices are replaced.

The SFPUC may replace the meters, gauges, and recording devices described above in subsections (a), (b), (c), and (d) or install new meters, gauges, and recording devices at new locations, provided that such changes do not diminish the accuracy of the water flow measurements or impair the ability of the SFPUC to separate direct City water use from water use by the wholesale customers. Maintenance and calibration procedures for new or replaced equipment may change. Modified maintenance and calibration procedures for new or replaced equipment will conform to industry standards set forth in AWWA Manual M33, the applicable

standards in the International Society of Automation, and will implement the manufacturer's instructions for maintenance and calibration. The SFPUC will provide BAWSCA with advance written notice of any such changes, together with a brief explanation of the reasons therefor and a description of the type and location of the replacement. Such notice shall automatically amend the list of meters, gauges, and recording devices set forth above in subsections (a), (b), (c), and (d).

5. Recording of Water Flow Data

a. Flow Data

The City shall record and maintain data measuring base water flow throughout the SFPUC Regional Water System as necessary to determine proportional annual water usage.

b. Reservoir Data

The SFPUC shall record and maintain data measuring the levels of the terminal reservoirs described above in subsection A.3.b and shown on Figure 1 on an hourly basis. Flow values derived from reservoir level readings for all reservoirs in the SFPUC wholesale system shall be calculated using the tables contained in the SFPUC publication "Reservoir Data" (aka "The Weir Book"), which set forth the relationship between reservoir levels and water volumes, as such tables may be amended from time to time to reflect changes in the volumes of the various reservoirs. The tables to be used initially shall be those from the current edition of The Weir Book.

SECTION B. CALCULATION OF PROPORTIONAL ANNUAL  
USAGE

"Base rates" means the percentages of annual SFPUC deliveries attributed to the Wholesale Customers and to City Retail Customers.

The percentage of annual SFPUC metered deliveries attributed to the Wholesale Customers (i.e., the wholesale base rate) shall be calculated for each fiscal year as described below and illustrated in Table 1. The item numbers listed below correspond to the item numbers listed in Table 1.

- (1) "Gross San Francisco County line base deliveries" shall equal the total amount of water flowing into the City's distribution system through transmission pipelines entering the City, as measured by the County-Line Meters described in Section A.3.a. and shown on Figures 1 and 2.
- (2) "Daly City base deliveries" shall equal the water flowing to Daly City through meter accounts provided downstream of the County-Line meters or through SFPUC's City Distribution Division. At present these accounts are:
  - (a) CSPL1/Macdonald Avenue Service (Account number 010084-01-0)
  - (b) Guttenberg Street Service (Account number 010013-01-3)
  - (c) Carter Street Service (Account numbers 284070-01-8 and 284071-01-6)

These accounts represent a portion of the total deliveries to Daly City. The quantities of water delivered to these four Daly City accounts are reported monthly in Form MGT441 by the SFPUC's Customer Service Division. These connections to meters are presently located within the City, and thus record water which has already been recorded by the SFPUC's master meters at the County line. So long as this condition continues, Daly City base deliveries shall be subtracted from "Gross San Francisco County line base deliveries."

- (3) "Net San Francisco base deliveries" shall equal the result of subtracting "Daly City base deliveries" from "Gross San Francisco County line base deliveries."

- (4) "Other suburban raw water base deliveries" shall equal the sum of all deliveries of raw (untreated) water to customers of the SFPUC located outside the City other than deliveries to the Wholesale Customers. "Other suburban raw water base deliveries" include deliveries of raw water in Alameda and San Mateo Counties to SFPUC Retail Customers, City departments and commissions, and other users affiliated with San Francisco.
- (5) "Other suburban treated water base deliveries" shall equal the sum of all deliveries of treated water to customers of the SFPUC located outside the City other than deliveries to the Wholesale Customers. Other suburban treated water base deliveries include deliveries of treated water to the SFPUC's Retail Customers in San Mateo, Santa Clara and Alameda Counties (such as NASA Ames Research Center and LLNL), to City departments and commissions and other users affiliated with San Francisco (such as the San Francisco International Airport, the San Francisco County Jail, and tenants of land owned by the City Recreation and Park Department).
- (6) "Other suburban base deliveries" shall equal the sum of "Other suburban raw water deliveries" and "Other suburban treated water deliveries." The combined amount of raw and treated water delivered to suburban entities other than the Wholesale Customers is reported monthly in Form MGT440 by the SFPUC's Customer Service Division.
- (7) "Total City base usage" shall equal "Net San Francisco base deliveries" plus "Other suburban base deliveries."
- (8) "Total wholesale base usage" shall equal the sum of all metered deliveries to the Wholesale Customers measured at their SFPUC master meters (including all deliveries to Daly City which are comprised of deliveries through meters located outside San Francisco and meters located inside San Francisco, deliveries through the latter of which are designated above in paragraph B.1.2 as "Daly City base

deliveries”). The quantity of water delivered to the individual Wholesale Customers, and the combined amount of water delivered to all Wholesale Customers is reported monthly in Form MGT440 by the SFPUC’s Customer Service Division.

- (9) “Total system base usage” shall equal “City base usage” plus “Wholesale base usage.”
- (10) “Wholesale base rate” shall equal the percentage obtained by dividing “Wholesale base usage” by “Total system base usage.”
- (11) “City base rate” shall equal the percentage obtained by subtracting “Wholesale base rate” from 100 percent.
- (12) “Base system input” shall equal all amounts of water supplied to the SFPUC Regional Water System, which presently comes from the following sources:
  - (a) Hetch Hetchy water as measured at the venturi meters on the 58-inch, 61-inch, and 78.5-inch San Joaquin Pipeline Nos. 1, 2, and 3 near Oakdale.
  - (b) Water supplied by HHWPD to LLNL as measured at the customer meter. Water delivered from the system to LLNL shall be deemed negative in sign for the purpose of determining “Base system input.”
  - (c) Hetch Hetchy water pumped from the Alameda siphons to San Antonio Reservoir as measured at the venturi meter on the 60-inch San Antonio pipeline. Water delivered from the system to San Antonio Reservoir shall be deemed negative in sign for the purpose of determining “Base system input.”

- (d) Sunol Valley Water Treatment Plant as measured at the meter on the 78-inch effluent pipeline.
- (e) Harry Tracy Water Treatment Plant as measured at the venturi meters on the 60-inch and 78-inch effluent pipelines.
- (f) Raw water deliveries to all SFPUC Retail Customers outside the City boundaries as measured at the customer meter. These deliveries are considered positive for the purposes of Table 1. Currently, raw water deliveries to the system are represented by the following account numbers contained in Form MGT440 prepared by the SFPUC's Customer Service Division:

266081-01-7 (Calaveras Nursery)  
266081-02-5 (Calaveras Nursery)  
264355-01-7 (Caltrans)  
266084-02-9 (Color Spot Nursery)  
272701-02-0 (Color Spot Nursery)  
266069-02-0 (Crystal Springs Golf Course)  
266078-02-1 (Dell Franklin)  
266078-01-3 (Dells Nursery)  
266084-01-1 (Hi-C Nursery)  
272701-01-2 (Hi-C Nursery)  
284112-01-8 (Hansen Aggregates)  
266084-03-7 (Jeff Anhorn Nursery)  
272701-03-8 (Jeff Anhorn Nursery)  
266079-02-9 (Mission Valley Rock)  
281043-01-8 (Mission Valley Rock)  
267618-02-3 (Nagata Farms)  
267618-01-5 (Nagata Farms)  
266090-01-8 (Naka Nursery)



266091-01-6 (Naka Nursery)  
266090-02-6 (Naka Nursery)  
266091-02-4 (Naka Nursery)  
264315-02-9 (Pacific Nurseries)  
266076-01-7 (Sunol Christmas Tree Farm)  
266076-02-5 (Sunol Tree Farm)  
276095-01-5 (Sunol Valley Golf & Recreation)  
266077-02-3 (Ura Farm)  
264352-01-4 (Ura, John)  
266075-01-9 (Valley Crest)  
268276-01-1 (Valley Crest Nursery)  
266093-01-2 (Valley Crest Tree Company)  
268426-02-0 (Valley Crest Tree Company)  
266075-02-7 (Valley Crest Tree Company)  
266093-02-0 (Valley Crest Tree Company)  
268276-02-9 (Valley Crest Tree Company)  
266082-01-5 (Western Star Nursery)  
266089-01-0 (Western Star Nursery)  
267254-02-7 (Western Star Nursery)  
266082-02-3 (Western Star)  
266089-02-8 (Western Star)  
267254-03-5 (Western Star)

- (g) Raw water deliveries from Pilarcitos Reservoir and Crystal Springs Reservoir to Coastside County Water District as measured at the customer meters. These deliveries are considered positive for the purposes of Table 1. Currently, raw water deliveries to Coastside County Water District from both reservoirs are represented under account number 010027-01-9 contained in Form MGT441 prepared by the SFPUC's Customer Service Division:

- (h) Crystal Springs Balancing Reservoir. The flow into or out of the Crystal Springs Balancing Reservoir shall be calculated based on the changes in the amounts of water stored in the reservoir. The amounts of water stored shall be determined by the use of water level sensors, and the application of water level readings to a water level-storage capacity table. Decreases in storage, which indicate a flow from the Balancing Reservoir into the system, shall be deemed positive in sign. Increases in storage, which indicate a flow into the Balancing Reservoir from the system, shall be deemed negative in sign. Over the period of a year, the total flows into and out of Crystal Springs Balancing Reservoir are nearly equivalent. As such, total system input from Crystal Springs Reservoir shall be deemed zero for calculating current base rates.
- (i) Deliveries to Crystal Springs Reservoir as measured by the overflow weir at the Pulgas Pump Station. Deliveries from the system to Crystal Springs Reservoir (“spills”) shall be deemed negative in sign for the purpose of determining “Base system input.”
- (j) Terminal Reservoirs. The “terminal reservoirs” consist of Sunset Reservoir, University Mound Reservoir, and Merced Manor Reservoir, each located within the City of San Francisco. The flow into or out of the terminal reservoirs shall be calculated based on the changes in the amounts of water stored in them. The amounts of water stored shall be determined by the use of water level sensors, and the application of water levels to water level-storage capacity tables. Over the period of a year, the total flows into and out of terminal reservoirs are nearly equivalent. As such, total system input from the terminal reservoirs shall be deemed zero for calculating base rates.
- (k) Other Sources. Other sources of flow into, or from, the Regional Water System, shall be accounted for as “other sources.” Examples of other

sources of system input would include intertie water deliveries between the Regional System and the Santa Clara Valley Water District, and between the Regional System and the East Bay Municipal Utilities District, and deliveries of raw water from Crystal Springs Reservoir in the event of an emergency. Flows from the system shall be deemed negative in sign for the purpose of determining "Base system input."

- (13) "Total base system input" shall equal the sum of the system inputs from the sources described in paragraph B.1.12.
- (14) "Joint system loss reduction factor" shall equal "Total system base usage" divided by "Total base system input." "Joint system loss reduction factor" shall not exceed 1.0.
- (15) "Daly City reduction factor" shall equal "Net San Francisco base deliveries" divided by "Gross San Francisco County line base deliveries." "Daly City reduction factor" shall not exceed 1.0.
- (16) "Total suburban base deliveries" shall equal "Other suburban base deliveries" plus "Total wholesale base usage."
- (17) "Suburban reduction factor" shall equal "Wholesale base usage" divided by "Total suburban base deliveries." "Suburban reduction factor" shall not exceed 1.0.
- (18) "HHWPD Deliveries above Oakdale" shall equal the total amount of water delivered by the HHWPD to users located above the system input meters in Oakdale. Water users located above the system input meters in Oakdale are currently represented by Groveland Community Services District and the HHWPD facility at Moccasin.

- (19) “HH Reduction Factor” is calculated for the purpose of determining the Wholesale Customers’ share of the Hetch Hetchy Assessment. The factor shall equal a fraction, the numerator of which is the total system input measured at the Oakdale meters (Table 1, line 12.a) and the denominator of which is the sum of the total system input measured at the Oakdale meters (Table 1, line 12.a) plus the total “HHWPD deliveries above Oakdale” (Table 1, line 18).

SECTION C.

DATA REQUIREMENTS AND SCHEDULE

1. Collection and Dissemination of Data

The SFPUC presently compiles daily flow data for the County-line meters, System Input and In-Line Meters, and daily reservoir water level data, and provides copies of that data to the Wholesale Customers (through BAWSCA) on a monthly basis. The SFPUC also provides copies of wholesale “Suburban Resale” and City Retail water usage data to BAWSCA on a monthly basis. Additionally, the SFPUC provides BAWSCA access to flow data for the meters as reported and recorded by the SFPUC’s SCADA system.

The SFPUC shall continue to provide the flow and water usage data described above to BAWSCA on a monthly basis, and shall continue to allow BAWSCA access to the SCADA system data, so that a coordinated effort between the SFPUC and BAWSCA will allow for updating Table 1 of this Attachment annually on a timely basis.

It shall continue to be the SFPUC’s responsibility to compile the data necessary to update Table 1 of this Attachment annually and the City shall deliver to BAWSCA, for review and approval, copies of the updated Table 1 by September 15 for the fiscal year ending the preceding June 30, as shown by the schedule contained in Section C.3.

Upon reasonable notice to the General Manager of the SFPUC, BAWSCA shall be given access to all water flow and usage records compiled by the SFPUC, including raw data, at reasonable times during business hours and shall have the right to copy such records and data at its expense.

2. Lack of Data

The parties recognize that, because of human error, mechanical failure, or other unplanned events, portions of the data required for the calculation of the usage rates and ratios described in Sections B and C of this Attachment occasionally may be unavailable or incorrect. In the event that such data are unavailable or inaccurate, the SFPUC shall make a reasonable estimate of the unavailable or incorrect data or use the most accurate alternative data that are available, and substitute the estimate therefor.

If the SFPUC uses an estimate of the unavailable or inaccurate data or alternative data, it shall provide BAWSCA with the following:

- (1) a description of the unavailable or inaccurate data and the estimation or substitution of data used therefor;
- (2) an explanation of the cause of the missing or inaccurate data and the reasons underlying the SFPUC's estimation or substitution of alternate data; and
- (3) a statement of how the error or malfunction that caused the unavailability or inaccuracy of the data will be avoided in the future.

The SFPUC shall provide this information to BAWSCA upon calculation by the SFPUC of the usage rates and ratios described in this Attachment for the fiscal year in question.

3. Schedule for Completing the Annual Calculations of Water Usage Rates

The parties recognize the importance of updating Table 1 of this Attachment annually in a timely manner, and that historically, doing so has required a coordinated effort between the SFPUC and BAWSCA. To assure timely completion of the annual calculations of water usage rates and ratios, the parties agree to adhere to the following schedule.

(1) By August 15: The SFPUC shall forward to BAWSCA all data for the fiscal year ending the preceding June 30, necessary to make a determination of the base water usage and base allocation rates for the Wholesale Customers and the City.

(2) By September 15. The City shall deliver to BAWSCA, for review and approval, draft copies of the updated Table 1 for the fiscal year ending the preceding June 30.

(3) Between September 15 and October 15. The SFPUC and BAWSCA shall reconcile any discrepancies or inaccuracies in the draft calculations of water usage rates and shall reach agreement on a final updated Table 1 for the fiscal year ending the preceding June 30.

(4) By November 1. The SFPUC shall deliver to BAWSCA a finalized updated Table 1, signed by the SFPUC General Manager, or appropriate designee, representing the water usage rates agreed upon by the SFPUC and BAWSCA, for the fiscal year ended June 30.

(5) By November 15. BAWSCA shall return the finalized Table 1 to the SFPUC, counter-signed by the BAWSCA General Manager/CEO. If the SFPUC does not receive the countersigned Table 1 from BAWSCA by November 15, it may use the water use data as contained in the Table 1 delivered pursuant to paragraph (4) above, subject to arbitration as provided in section 8.01 of the Agreement.

## SECTION D. COUNTY LINE AND IN-CITY TERMINAL RESERVOIR METER CALIBRATION AND MAINTENANCE

### 1. General

This section refers only to the County-Line and In-City Terminal Reservoir Meters. The term “meter(s)” includes the primary meter itself (most of the primary meters in the SFPUC’s water system are Venturi-type flow meters) as well as any and all of the associated equipment used to measure, record, and transmit flow and water level data. The metering equipment associated with the primary metering device (also referred to as the secondary metering equipment) includes differential pressure transmitters, recorders, telecommunications equipment and the portion of the SFPUC’s Supervisory Control and Data Acquisition (SCADA) System that is used to transmit flow and water level measurements from the water meter to the computer terminal that records the measured data.

The County-Line and In-City Terminal Reservoir meters, their general locations, and their associated metering equipment are listed in Table 4.

### 2. Frequency and Type of Work to be Performed

The meters, water level sensors, and associated metering equipment are to be inspected, tested, calibrated, and maintained according to the applicable meter calibration and maintenance frequency specified in Table 5.

### 3. Components of the Calibration and Maintenance Work

The SFPUC will contract with an independent metering consultant to perform periodic inspections, testing, servicing and calibrations of the meters and metering equipment for the County-line meters and In-City Terminal Reservoirs. The metering consultant's calibration and maintenance work will include the following components:

- Annual Pitot Tube Tests: Pitot tube flow tests shall be performed once a year on all Venturi-type flow meters. See Sections 4.b and 4.c for further detail.
- Quarterly Secondary Meter Equipment Testing and Calibration: The secondary metering equipment shall be tested for accuracy and calibrated quarterly at five input levels (0%, 25%, 50%, 75% and 100% of the full range of flow). See Section 4.a for further detail.
- Cleaning: Clean and remove dust, oils, dirt, etc. from all instruments.
- Flushing: Flush and clean Venturi tube differential pressure (D/P) sensing lines.
- Inspecting: Inspections for mechanical fatigue, leaky pipes and fittings, worn parts, and improper operation of electrical/electronic equipment.
- Lubrication: Mechanical parts shall be lubricated as needed.

#### 4. Calibration Procedures

The metering consultant shall continue to calibrate and maintain the County-line meters and metering equipment listed in Table 4 in accordance with the frequency of work specified in Table 5. The work includes documenting meter readings and accuracy before and after calibration. Specific tasks to be completed by the metering consultant are as follows:

- a) Quarterly testing and calibration. The secondary metering equipment shall be tested and calibrated quarterly using NIST Traceable test equipment, and a "dead weight tester."



The system loop error for the secondary metering equipment is determined by connecting its output to the differential pressure transmitter and adjusting the dead weight tester to 5 places over the full range of flow: 0%, 25%, 50%, 75% and 100%, while all instruments in the loop are connected. For water level transmitters, provide simulated test head equal to full range of the transmitter being calibrated, comparing the simulated test head to its 4-20 milliamp output signal to determine transmitter error and calibration requirements. The system loop error for the secondary metering equipment may not exceed +/-2%. The individual components of the secondary metering equipment shall also be tested at the same 5 input levels and calibrated as necessary to ensure the error of the system and individual components does not exceed +/- 2%.

- b) Annual Pitot Tube Testing and Calibration. Annual Pitot tube testing shall be conducted for a comparison of flow totalized by the Pitot tube test equipment and the totalizer used by the SFPUC for water measurement and billing purposes. Annual Pitot tube flow testing shall be performed on all flow meters for assessment of Venturi error using the Annubar continuous flow method at 22% of the pipe radius. Pitot tube flow testing must be conducted continuously for a minimum of 30 minutes per test.

The Pitot tube flow tests are first performed before any of the secondary metering instruments are calibrated to determine the total system error (system consisting of the primary metering device and secondary metering equipment). Once the total system loop error has been established, perform secondary loop instrument testing and calibration as per the quarterly testing and calibration procedures described in 4.a above. If the total system error exceeds +/- 2% after calibration of the secondary metering equipment, minor adjustments to the differential pressure transmitter shall be made to correct (calibrate) the error in the Venturi meter. Repeat Pitot tube testing must be performed after the individual instrument calibration and differential pressure transmitter adjustments have been performed to establish that total system loop error is within +/- 2%.

- c) Pitot tube testing shall be conducted at a flow rate representing the typical flow for the meter (and, if operationally possible, at three different flows ranging from a minimum to near maximum capacity flow).
- d) The metering consultant shall perform the meter testing and calibration procedures utilizing the meter characteristic curves (for example, the pressure drop vs. flow for a Venturi meter) that have been obtained during previous meter calibration and maintenance work.
- e) During each quarterly site visit, the metering consultant shall inspect, assess and document the condition of all metering equipment, including meter, gauges, indicators, recorders, transmitters and other instrumentation, used in the measurement and recording of flow rates and cumulative flow totals and shall document all operational problems with the calibration instruments and meters during the calibration process. Problems may include air entrainment, leakage, flow disturbance and unstable meter readings.
- f) Prior to each quarterly site visit, the metering consultant shall review prior calibration records and reports for each meter to determine if previously-identified errors or equipment deficiencies were corrected as previously recommended.
- g) Each quarter, the metering consultant shall submit a final report (See Section 6) containing all of the calibration results for each meter tested and calibrated during the quarter. The metering consultant's report shall include a narrative description of the work conducted on each meter and meter calibration reports for the individual metering equipment. The quarterly report shall also address deficiencies that were not previously corrected according to the recommendations made in the prior report.

## 5. Calibration Instruments

The instrument used for flow testing of the primary meter (Venturi) must meet the accuracy standards required by the American Water Works Association (AWWA), and be

capable of measuring actual flows with an error of less than +/- 2%. If a particular calibration instrument is not rated for accuracy by the AWWA, its accuracy will be determined by reference to its manufacturer's representations as to accuracy.

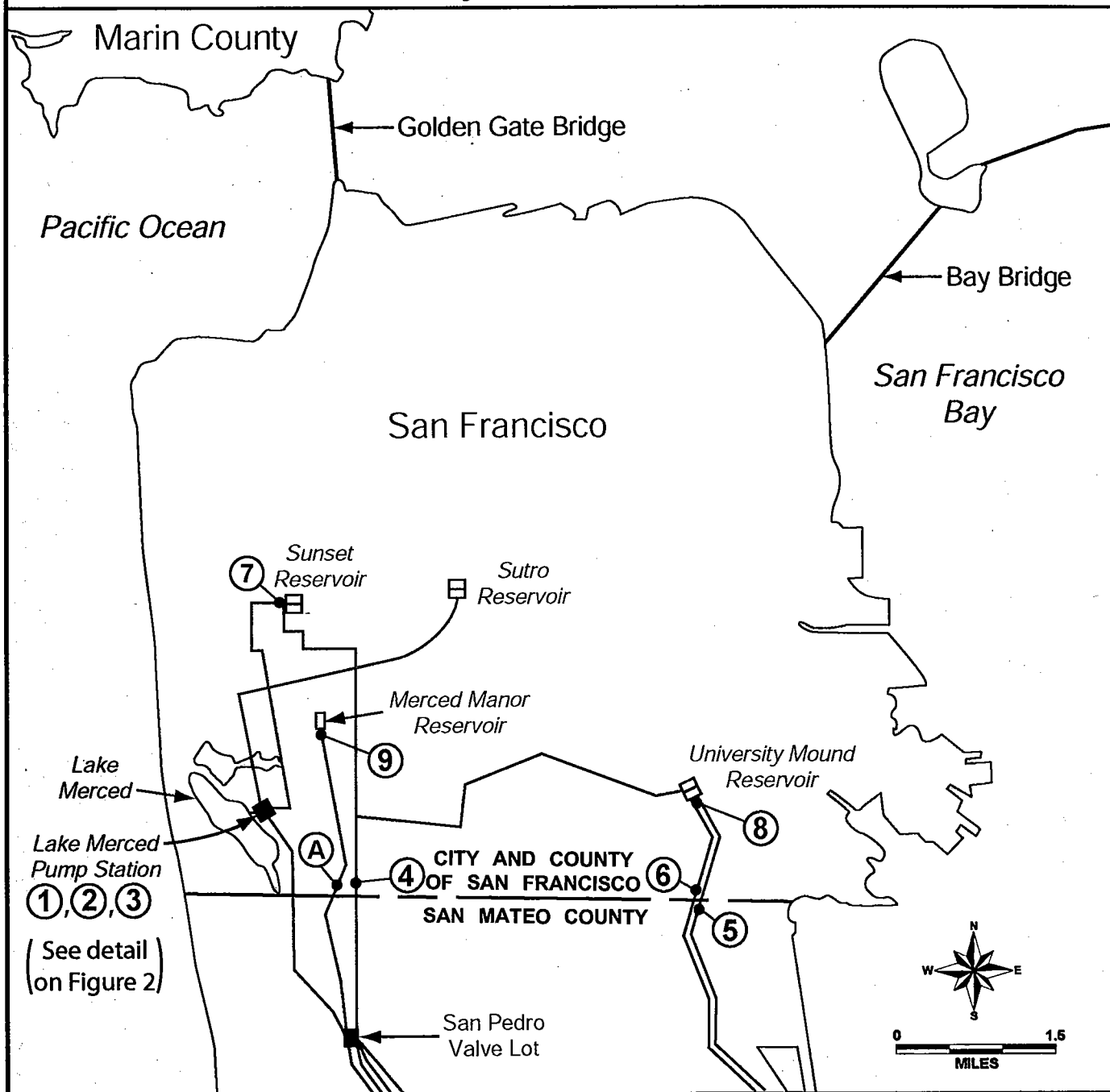
#### 6. Calibration Reports

Within fourteen (14) working days after the beginning of each quarter, the metering consultant shall submit a written progress report of the work performed during the previous quarter. Each quarterly report will describe the results of the meter calibrations and any other tasks performed. The report will also include comments regarding any observations of abnormal conditions and any recommendations regarding these meters and their related equipment.

The reports must include complete descriptions and status of meters and related equipment, dates and times of service, all calibration specifics, pipeline dimensions, range of flow rates and totalized volumes, before and after error analysis and accuracy levels achieved, testing equipment used, and the name(s) of the person(s) that performed the work.

When appropriate and necessary, the metering consultant shall provide recommendations for improving the accuracy and reliability of the equipment and/or the methods of data collection. If, in the opinion of the metering consultant, the condition of a meter or its associated metering equipment is found to be defective, damaged, or otherwise in need of immediate repair or replacement, the metering consultant shall: 1) promptly notify the appropriate SFPUC personnel of the problem and recommend a solution to the problem so that the SFPUC can determine how to address it and, 2) include the problem description in its quarterly report.

## Locations of SFPUC County-Line Meters and In-City Terminal Reservoirs

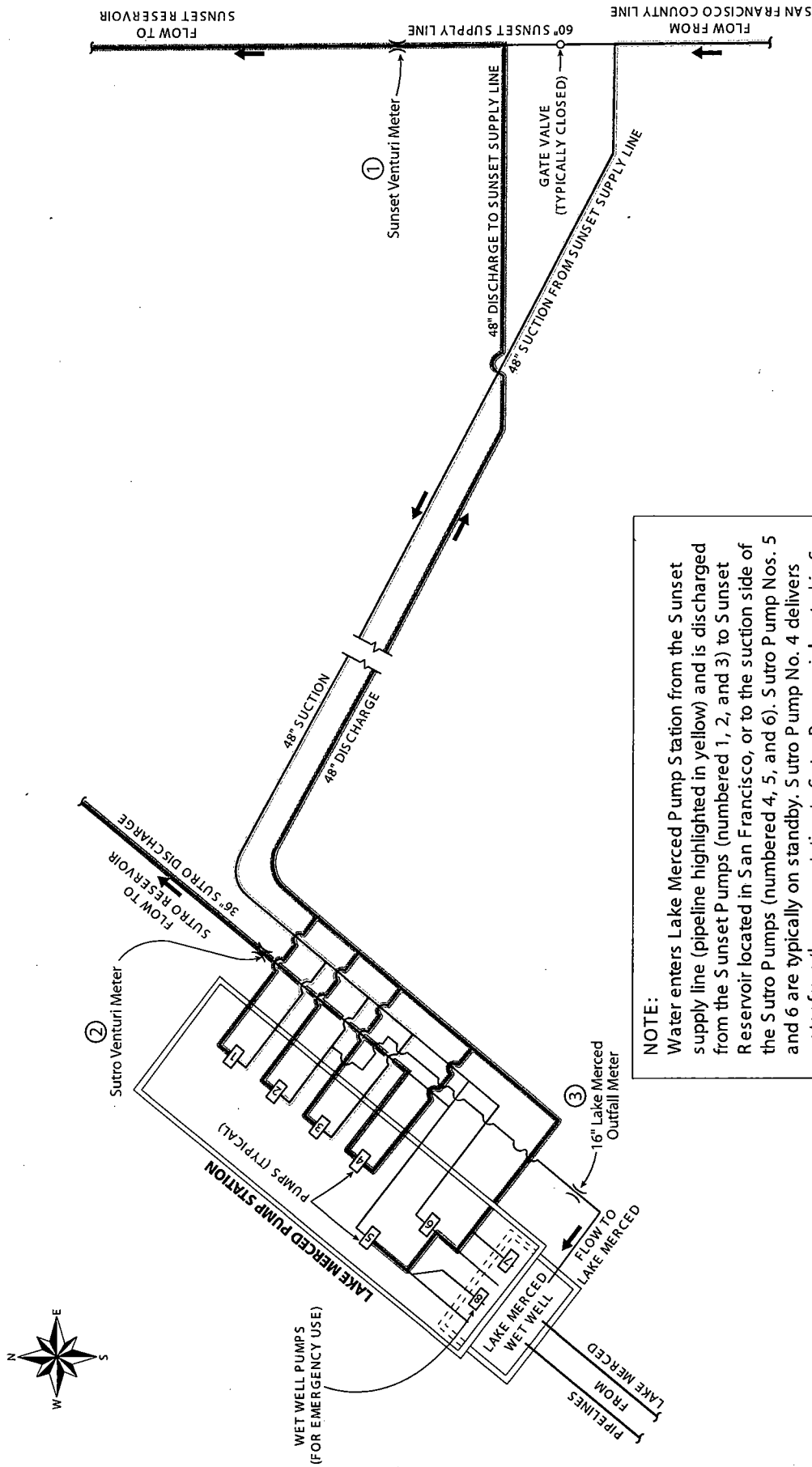


METER	PIPELINE	LOCATION
1	Sunset	Lake Merced Pump Station
2	Sutro	Lake Merced Pump Station
3	Lake Merced Outfall	Lake Merced Pump Station
4	San Andreas No. 2	Junipero Serra (Hwy. 280) South of Belle Ave.
5	Crystal Springs No. 1	PG&E Martin Service Center Yard
6	Crystal Springs No. 2	Tamasco Ct. South of Sunnydale Ave.
A	San Andreas No. 3 (Planned)	To be determined

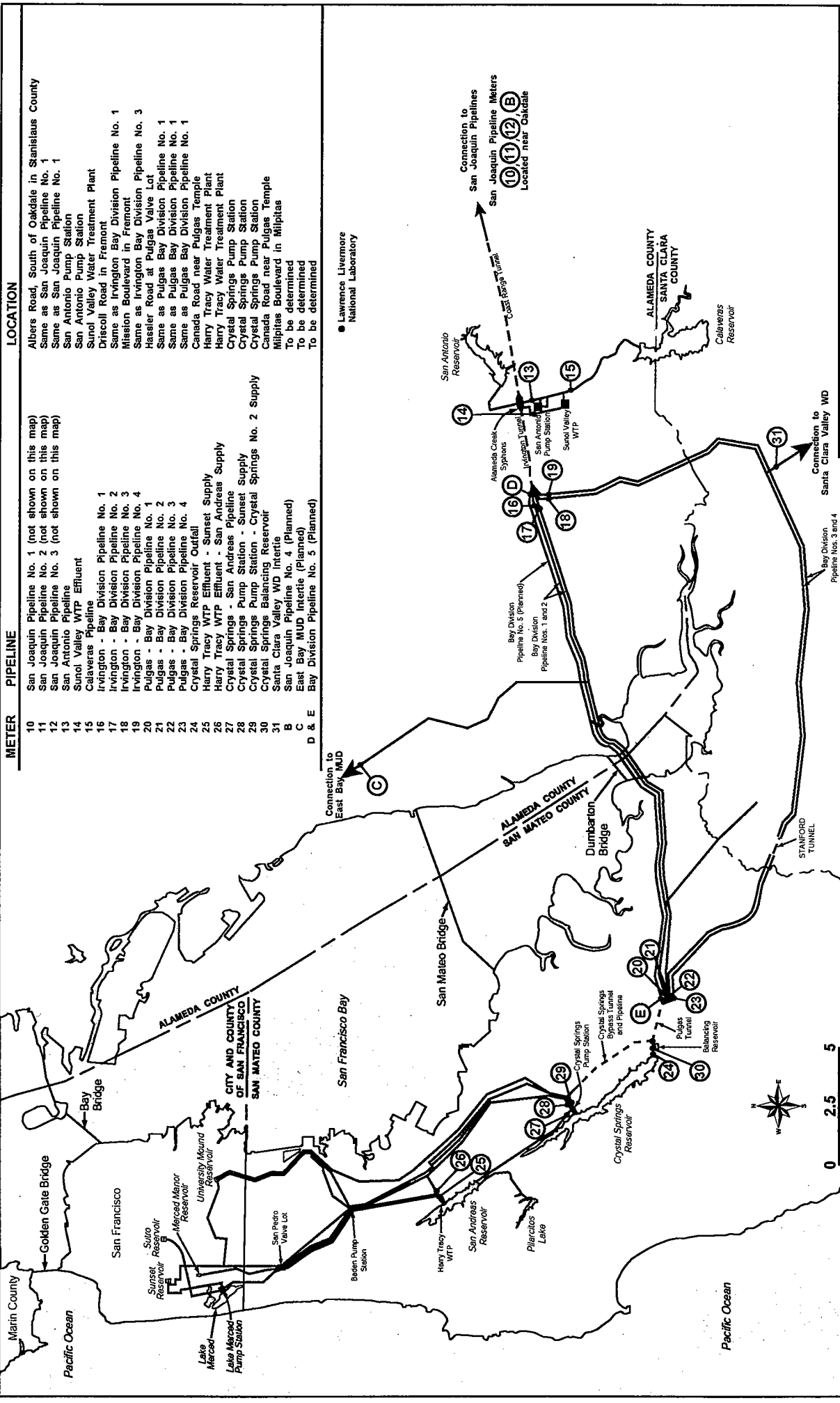
METER	RESERVOIR	LOCATION
7	Sunset Reservoir	26th Avenue and Ortega
8	University Mound Reservoir	University Avenue and Bacon
9	Merced Manor Reservoir	23rd Avenue and Ocean

Generalized Schematic of Lake Merced Pump Station



**NOTE:**  
 Water enters Lake Merced Pump Station from the Sutter supply line (pipeline highlighted in yellow) and is discharged from the Sutter Pumps (numbered 1, 2, and 3) to Sutter Reservoir located in San Francisco, or to the suction side of the Sutter Pumps (numbered 4, 5, and 6). Sutter Pump Nos. 5 and 6 are typically on standby. Sutter Pump No. 4 delivers water from the pump station to Sutter Reservoir located in San Francisco. Deliveries from the SFPUC water system to Lake Merced are accomplished by gravity through the 16-inch pipeline that connects to the suction side of Sutter Pump No. 2.

FIGURE 3



METER	PIPELINE	LOCATION
10	San Joaquin Pipeline No. 1 (not shown on this map)	Albers Road, South of Oakdale in Stanislaus County
11	San Joaquin Pipeline No. 2 (not shown on this map)	Same as San Joaquin Pipeline No. 1
12	San Joaquin Pipeline No. 3 (not shown on this map)	Same as San Joaquin Pipeline No. 1
13	San Antonio Pipeline	San Antonio Pump Station
14	Sunol Valley WTP Effluent	San Antonio Pump Station
15	Calaveras Pipeline	Sunol Valley Water Treatment Plant
16	Irvington - Bay Division Pipeline No. 1	Driscoll Road in Fremont
17	Irvington - Bay Division Pipeline No. 2	Same as Irvington Bay Division Pipeline No. 1
18	Irvington - Bay Division Pipeline No. 3	Mission Boulevard in Fremont
19	Irvington - Bay Division Pipeline No. 4	Same as Irvington Bay Division Pipeline No. 3
20	Pugas - Bay Division Pipeline No. 1	Hassler Road at Pugas Valve Lot
21	Pugas - Bay Division Pipeline No. 2	Same as Pugas Bay Division Pipeline No. 1
22	Pugas - Bay Division Pipeline No. 3	Same as Pugas Bay Division Pipeline No. 1
23	Pugas - Bay Division Pipeline No. 4	Same as Pugas Bay Division Pipeline No. 1
24	Crystal Springs Reservoir Outfall	Canada Road near Pugas Temple
25	Harry Tracy WTP Effluent - Sunset Supply	Harry Tracy Water Treatment Plant
26	Harry Tracy WTP Effluent - San Andreas Pipeline	Harry Tracy Water Treatment Plant
27	Crystal Springs Pump Station - San Andreas Pipeline	Crystal Springs Pump Station
28	Crystal Springs Pump Station - Sunset Supply	Crystal Springs Pump Station
29	Crystal Springs Pump Station - Crystal Springs	Crystal Springs Pump Station
30	Crystal Springs Balancing Reservoir	Canada Road near Pugas Temple
31	Santa Clara Valley WD Intertie	Milpitas Boulevard in Milpitas
B	San Joaquin Pipeline No. 4 (Planned)	To be determined
C	East Bay MUD Intertie (Planned)	To be determined
D & E	Bay Division Pipeline No. 5 (Planned)	To be determined

- Lawrence Livermore National Laboratory

**Locations of System Input and In-Line Meters**

**Table 1**  
**Base Usage (mgd) and Allocation Rates**

(1) Usage	(2) Definition	(3) 2004-05	(4) 2005-06	(5) 2006-07	(6) 2007-08	(7) 2008-09	(8) 2009-10
1. Gross S.F. Co. line	B.1	79.5	78.3	75.7			
2. Daly City portion	B.2	0.2	0.2	0.2			
3. Net S.F.	(1-2)	79.3	78.1	75.5			
4. Other suburban raw water	B.4	0.4	0.5	0.7			
5. Other suburban treated water	B.5	4.1	3.4	3.9			
6. Total other suburban	(4+5)	4.5	3.9	4.6			
7. Total City usage	(3+6)	83.8	82.0	80.1			
8. Total wholesale usage	B.8	167.4	164.4	175.8			
9. Total system usage	(7+8)	251.2	246.4	255.9			
10. Wholesale alloc. rate	(8/9)	66.63%	66.72%	68.70%			
11. City alloc. rate	(100%-10)	33.37%	33.28%	31.30%			
12a. HHWPD input (Oakdale)	B.12	194.7	202.6	227.3			
12b. Deliveries to LLNL	B.12	-0.4	-0.9	-0.9			
12c. HH to San Ant. Res.	B.12	-3.8	-1.8	-11.6			
12d. Sunol Valley WTP	B.12	28.5	29.4	17.6			
12e. Harry Tracy WTP	B.12	45.2	40.4	41.2			
12f. Raw water deliveries	B.12	0.4	0.4	0.7			
12g. Deliveries to Coastside Co. WD	B.12	1.8	1.6	2.1			
12h. Crys. Sprs. Bal. Res.	B.12	0.0	0.0	0.0			
12i. Spill to CS Res.	B.12	-19.9	-42.6	-37.1			
12j. Terminal Reservoirs	B.12	0.0	0.0	0.0			
12k. Other sources	B.12	0.0	1.9	3.8			
13. Total system input	B.13	246.5	231.0	243.1			
14. Jt. sys. loss red. fact.	(9/13)	1.0000	1.0000	1.0000			
15. Daly City red. factor	(3/1)	0.9975	0.9974	0.9974			
16. Total suburban	(6+8)	171.9	168.3	180.4			
17. Suburban red. factor	(8/16)	0.9736	0.9768	0.9745			
18. HHWPD Deliveries above Oakdale	B.18						
19. HH Reduction Factor	B.19	99.56%					

**Table 2  
Locations of SFPUC County-Line Meters and In-City Terminal Reservoirs**

**County-Line Meters**

<b><u>Meter</u></b>	<b><u>Pipeline</u></b>	<b><u>Location</u></b>
1	Sunset	Lake Merced Pump Station
2	Sutro	Lake Merced Pump Station
3	Lake Merced Outfall	Lake Merced Pump Station
4	San Andreas No. 2	Junipero Serra (Hwy. 280) South of Belle Ave.
5	Crystal Springs No. 1	PG&E Martin Service Center Yard
6	Crystal Springs No. 2	Tamasco Ct. South of Sunnydale Ave.
A	San Andreas No. 3 (Planned)	To be determined

**In-City Terminal Reservoirs**

<b><u>Meter</u></b>	<b><u>Reservoir</u></b>	<b><u>Location</u></b>
7	Sunset Reservoir	26 <sup>th</sup> Avenue and Ortega
8	University Mound Reservoir	University Avenue and Bacon
9	Merced Manor Reservoir	23 <sup>rd</sup> Avenue and Ocean



**Table 3  
Locations of SFPUC System Input and In-Line Meters**

<u>Meter</u>	<u>Pipeline</u>	<u>Location</u>
10	San Joaquin Pipeline No. 1	Albers Road, South of Oakdale in Stanislaus County
11	San Joaquin Pipeline No. 2	Same as San Joaquin Pipeline No. 1
12	San Joaquin Pipeline No. 3	Same as San Joaquin Pipeline No. 1
13	San Antonio Pipeline	San Antonio Pump Station
14	Sunol Valley WTP Effluent	San Antonio Pump Station
15	Calaveras Pipeline	Sunol Valley Water Treatment Plant
16	Irvington – Bay Division Pipeline No. 1	Driscoll Road in Fremont
17	Irvington – Bay Division Pipeline No. 2	Same as Irvington Bay Division Pipeline No.1
18	Irvington – Bay Division Pipeline No. 3	Mission Boulevard in Fremont
19	Irvington – Bay Division Pipeline No. 4	Same as Irvington Bay Division Pipeline No.3
20	Pulgas – Bay Division Pipeline No. 1	Hassler Road at Pulgas Valve Lot
21	Pulgas – Bay Division Pipeline No. 2	Same as Pulgas Bay Division Pipeline No. 1
22	Pulgas – Bay Division Pipeline No. 3	Same as Pulgas Bay Division Pipeline No. 1
23	Pulgas – Bay Division Pipeline No. 4	Same as Pulgas Bay Division Pipeline No. 1
24	Crystal Springs Reservoir Outfall	Canada Road near Pulgas Temple
25	Harry Tracy WTP Effluent – Sunset Supply	Harry Tracy Water Treatment Plant
26	Harry Tracy WTP Effluent – San Andreas Supply	Harry Tracy Water Treatment Plant
27	Crystal Springs – San Andreas Pipeline	Crystal Springs Pump Station
28	Crystal Springs Pump Station – Sunset Supply	Crystal Springs Pump Station
29	Crystal Springs Pump Station – Crystal Springs No. 2 Supply	Crystal Springs Pump Station
30	Crystal Springs Balancing Reservoir	Canada Road near Pulgas Temple
31	Santa Clara Valley WD Intertie	Milpitas Boulevard in Milpitas
B	San Joaquin Pipeline No. 4 (Planned)	To be determined
C	East Bay MUD Intertie (Planned)	To be determined
D&E	Bay Division Pipeline No. 5 (Planned)	To be determined

**TABLE 4**  
**SFPUC COUNTY-LINE METERS, IN-CITY TERMINAL RESERVOIRS,**  
**AND ASSOCIATED METERING EQUIPMENT**

<b>County-Line Meter</b>	<b>Meter Type</b>	<b>Location</b>
<b>1. Sunset</b>	60" Venturi	Lake Merced Pump Station
Associated Metering Equipment:	<ul style="list-style-type: none"> <li>• Rosemount D/P transmitter</li> <li>• Honeywell recorder</li> <li>• SCADA</li> </ul>	
<b>2. Sutro</b>	36" Venturi	Lake Merced Pump Station
Associated Metering Equipment:	<ul style="list-style-type: none"> <li>• Rosemount D/P transmitter</li> <li>• Honeywell recorder</li> <li>• SCADA</li> </ul>	
<b>3. Lake Merced Outfall</b>	16" Mag. Meter	Lake Merced Pump Station
Associated Metering Equipment:	<ul style="list-style-type: none"> <li>• Honeywell recorder</li> <li>• SCADA</li> </ul>	
<b>4. San Andreas No. 2</b>	36" Venturi	Junipero Serra (Hwy. 280) south of Belle Avenue
Associated Metering Equipment:	<ul style="list-style-type: none"> <li>• Yokogawa D/P transmitter</li> <li>• NLS display</li> <li>• AGM electronics</li> <li>• Honeywell recorder</li> <li>• SCADA</li> </ul>	
<b>5. Crystal Springs No. 1</b>	44" Venturi	PG&E Martin Service Center Yard
Associated Metering Equipment:	<ul style="list-style-type: none"> <li>• Yokogawa D/P transmitter</li> <li>• NLS display</li> <li>• AGM electronics</li> <li>• Honeywell recorder</li> <li>• SCADA</li> </ul>	
<b>6. Crystal Springs No. 2</b>	60" Venturi	Tamasco Ct. south of Sunnydale Avenue
Associated Metering Equipment:	<ul style="list-style-type: none"> <li>• Yokogawa D/P transmitter</li> <li>• NLS display</li> <li>• AGM electronics</li> <li>• SCADA</li> </ul>	
<b>In-City Terminal Reservoirs</b>		
<b>1. Sunset</b>	Pressure Transducer	26 <sup>th</sup> Avenue and Ortega
Associated Metering Equipment:	<ul style="list-style-type: none"> <li>• Honeywell recorder</li> <li>• SCADA</li> </ul>	
<b>2. Merced-Manor</b>	Pressure Transducer	23 <sup>rd</sup> Avenue and Ocean
Associated Metering Equipment:	<ul style="list-style-type: none"> <li>• Honeywell recorder</li> <li>• SCADA</li> </ul>	
<b>3. University Mound</b>	Pressure Transducer	University Avenue and Bacon
Associated Metering Equipment:	<ul style="list-style-type: none"> <li>• Honeywell recorder</li> <li>• SCADA</li> </ul>	

**TABLE 5  
METER CALIBRATION AND MAINTENANCE FREQUENCY**

METER/ EQUIPMENT	FREQUENCY			WORK TO BE PERFORMED (See Work Codes Listed Below)					
	Quarterly	Semi- Annual	Annual	CA	CL	FL	IN	LU	PT
Venturi Meters			X	X		X (1)	X (1)		X
Magnetic Meters		X		X (2)	X (2)		X (2)		
Yokagowa D/P Transmitters	X			X	X	X	X		
Rosemount D/P Transmitters	X			X	X	X	X		
Honeywell Recorders	X			X	X		X		
Water Level Sensors (Pressure Transducers)	X			X	X		X		
SCADA Electronics	X			X					
AGM Electronics	X			X					
NLS Digital Displays	X			X					
Electrostatic 24V DC Power Supplies			X				X (3)		
ASCO Solenoids			X		X		X (4)	X	

**WORK CODES:**

CA = CALIBRATE; CL = CLEAN; FL = FLUSH; IN = INSPECT; LU = LUBRICATE; PT = PITOT TUBE TEST.

**NOTES:**

- (1) Inspection and flushing requirements for Venturi meters refer to the pressure tubing from the meter to the differential pressure transmitter.
- (2) May calibrate using clamp-on meter where conditions allow. Inspection and cleaning requirements for magnetic meters refer to the sensors or probes that are inserted through the pipe wall.
- (3) Adjust voltage if necessary.
- (4) Replace rubber ware as needed.

**ATTACHMENT K-1**  
**WHOLESALE CUSTOMERS' SHARE OF NET BOOK VALUE OF EXISTING ASSETS**  
**\*\*PRELIMINARY - TO BE SUBSTITUTED WITH FINAL 6/30/09 VALUES\*\***  
**(Section 5.03)**

	Notes	Projected Value		
		Water	Hetch Hetchy	Total
Regional System Net Plant as of 6/30/08 (Actual)	1	\$ 435,639,907	\$ 66,135,724	
Less: Projected Depreciation on Regional Assets	2	\$ (32,526,143)	\$ (3,598,189)	
Plus: Projected FY 2008-09 Capital Additions	3	\$ 62,771,153	\$ -	
Projected Regional System Net Plant as of 6/30/09		\$ 465,884,917	\$ 62,537,535	
Plus: Projected Construction Work In Progress (CWIP) as of 6/30/09	4	\$ 16,928,503	\$ 5,807,023	
Projected Regional System Net Plant and CWIP as of 6/30/09		\$ 482,813,420	\$ 68,344,558	\$ 551,157,978
Allocation Factor:	5	70.1%	64.2%	
Wholesale Share of Projected Regional System Net Plant as of 6/30/09		\$ 326,585,327	\$ 40,149,098	\$ 366,734,424
Plus: Wholesale Share of Projected CWIP as of 6/30/09	6	\$ 11,866,881	\$ 3,728,109	\$ 15,594,989
Wholesale Share of Projected Net Plant and CWIP as 6/30/09		\$ 338,452,207	\$ 43,877,206	\$ 382,329,414
Interest Rate:		5.13%	5.13%	
Term (Yrs):		25	25	
Monthly Principal & Interest		\$ 2,004,277	\$ 259,836	\$ 2,264,113
Annual Wholesale Revenue Requirement Amount		\$ 24,051,326	\$ 3,118,033	\$ 27,169,359

Notes

- 1 FAACS 120A Report as of 6/30/08
- 2 SFPUC Estimate
- 3 SFPUC Estimate based on projects and amounts as follows:

	Water Assets
CUW358 Sunset Reservoir (North Basin)	\$ 57,382,744
CUW 365 Cross Connection Controls	\$ 3,679,415
CUW 394 Watershed Land Acquisition	\$ 1,708,994
Total Additions	\$ 62,771,153

- 4 CWIP based on balance as 6/30/08 plus YTD expenditures (see Attachment K-2)
- 5 Fixed allocation factors based on dollar weighted 5-year average of J-Table allocation factors (2003-04 through 2007-08)
- 6 Wholesale share CWIP based on balance as 6/30/08 plus YTD expenditures (see Attachment K-2)

**ATTACHMENT K-2**  
**WHOLESALE CUSTOMERS' SHARE OF THE BOOK VALUE OF REVENUE FUNDED CAPITAL EXPENDITURES**  
**\*\*PRELIMINARY - TO BE SUBSTITUTED WITH FINAL 6/30/09 VALUES\*\***  
**(Section 5.03)**

[1] Project No.	[2] Project Description	[3] Rate Class	[4] CWIP as of 6/30/08	[5] FY 2008-09 Expenditures	[6] Reduction for O2A Funding	[7] CWIP as 6/30/09	[8] Water Related CWIP	[9] Wholesale Share
A.	Water Enterprise							
1	Regional Projects							
CUW352	Alameda Creek Fishery	Joint	\$ 2,007,607	\$ 224,582	\$ 2,232,189	\$ -		\$ -
CUW353	Seismic Upgrade @ Hayward Fault	Joint	\$ 3,129,234	\$ 1,967,625	\$ 5,096,859	\$ -		\$ -
CUW354	LOWER CRYSTAL SPRINGS DAM-REV-SFWD	Joint	\$ 7,046,944	\$ 1,086,262	\$ 8,133,206	\$ -		\$ -
CUW355	STANDBY POWER FACILITIES	Joint	\$ 3,715,276	\$ 6,596,849	\$ 10,312,125	\$ -		\$ -
CUW357	Adit Leak Repairs	Joint	\$ 783	\$ 1,129	\$ 1,912	\$ -		\$ -
CUW359	Irvington Tunnel	Joint	\$ 21,391,129	\$ 5,176,713	\$ 26,567,842	\$ -		\$ -
CUW359		Joint	\$ 7,837,176	\$ -	\$ 7,837,176	\$ -		\$ -
CUW361	Pulgas Balancing Reservoir	Joint	\$ 368,057	\$ 1,383,959	\$ 1,752,016	\$ -		\$ -
CUW361		Joint	\$ 1,255,545	\$ -	\$ 1,255,545	\$ -		\$ -
CUW361		Joint	\$ 1,248,002	\$ -	\$ 1,248,002	\$ -		\$ -
CUW361	SCADA Phase II	Joint	\$ 570,179	\$ -	\$ 570,179	\$ -		\$ -
CUW361		Joint	\$ 712,921	\$ -	\$ 712,921	\$ -		\$ -
CUW363	Cross Connection Control	Joint	\$ 1,335,371	\$ 1,738,045	\$ 3,073,416	\$ -		\$ -
CUW363		Joint	\$ 1,062,050	\$ -	\$ 1,062,050	\$ -		\$ -
CUW365	HTWTP LT Impr	Joint	\$ 3,635,172	\$ 547,801	\$ 4,182,973	\$ -		\$ -
CUW367	BDPL Hydraulic Capacity	Joint	\$ 8,011,348	\$ 2,479,731	\$ 10,491,079	\$ -		\$ -
CUW368	BDPL Hydraulic Capacity	Joint	\$ 23,640,601	\$ -	\$ 23,640,601	\$ -		\$ -
CUW368		Joint	\$ 17,556,905	\$ 4,200,442	\$ 21,757,347	\$ -		\$ -
CUW368		Joint	\$ 2,579,847	\$ -	\$ 2,579,847	\$ -		\$ -
CUW370	Pipeline Readiness	Joint	\$ 5,320,934	\$ 328,070	\$ 5,649,004	\$ -		\$ -
CUW371	CSPS and Pipeline	Joint	\$ 11,420,770	\$ 3,872,779	\$ 15,293,549	\$ -		\$ -
CUW372	University Mound (N)	Joint	\$ 4,624,981	\$ 1,068,147	\$ 5,693,128	\$ -		\$ -
CUW373	SJPL	Joint	\$ 19,479,341	\$ 6,023,849	\$ 25,503,190	\$ -		\$ -
CUW373		Joint	\$ 7,199,051	\$ -	\$ 7,199,051	\$ -		\$ -
CUW374	Calaveras Dam	Joint	\$ 31,171,669	\$ 4,314,430	\$ 35,486,099	\$ -		\$ -
CUW374		Joint	\$ 2,366,343	\$ -	\$ 2,366,343	\$ -		\$ -
CUW378	CSPL #2	Joint	\$ 7,453,098	\$ 913,369	\$ 8,366,467	\$ -		\$ -
CUW379	SAPL #3	Joint	\$ 5,728,934	\$ 588,346	\$ 6,317,280	\$ -		\$ -
CUW380	BDPK #3&4 Crossovers	Joint	\$ 3,855,357	\$ 1,083,888	\$ 4,939,245	\$ -		\$ -
CUW381	SVWTP Expansion	Joint	\$ 5,450,995	\$ -	\$ 5,450,995	\$ -		\$ -
CUW381		Joint	\$ 53,222	\$ 3,090,520	\$ 3,143,742	\$ -		\$ -
CUW381		Joint	\$ 97,373	\$ -	\$ 97,373	\$ -		\$ -
CUW382	SVWTP Treated Water Reservoir	Joint	\$ 5,799,505	\$ 575	\$ 5,800,080	\$ -		\$ -
CUW384	Tesla	Joint	\$ 6,102,621	\$ 7,444,942	\$ 13,547,563	\$ -		\$ -
CUW386	SAPS X-CONNECT & PUMP IMP 96A UEB	Joint	\$ 1,374,491	\$ 971,625	\$ 2,346,116	\$ -		\$ -
CUW388	PEIR	Joint	\$ 896,476	\$ 1,641,717	\$ 2,538,193	\$ -		\$ -
CUW388		Joint	\$ 1,331,676	\$ -	\$ 1,331,676	\$ -		\$ -
CUW390	Desalination Pilot	Joint	\$ 175,165	\$ -	\$ 175,165	\$ -		\$ -
CUW391	Baden/San Pedro Valve Lots	Joint	\$ 3,964,642	\$ 948,589	\$ 4,913,231	\$ -		\$ -
CUW392	Program Management	Joint	\$ 2,452,297	\$ 5,081,444	\$ 7,533,741	\$ -		\$ -
CUW393	BDPL #4 Condition Assessment	Joint	\$ 25,071	\$ 294,634	\$ 319,705	\$ -		\$ -
CUW394	Watershed Environment Improvement	Joint	\$ 142,924	\$ 96,027	\$ 238,951	\$ -		\$ -
CUW101	SAN ANDREAS PLANT EXPANSION #1	Joint	\$ 182	\$ 96,027	\$ -	\$ 96,209		\$ 67,443
CUW111	LOWER CRYSTAL SPRINGS DAM-REV-SFWD	Joint	\$ 40,436	\$ -	\$ -	\$ 40,436		\$ 28,346
CUW151	Baden PS	Joint	\$ 921	\$ 26,760	\$ -	\$ 27,681		\$ 19,404
CUW161	Water Treatment Facilities	Joint	\$ 75,801	\$ 605	\$ -	\$ 76,406		\$ 53,561
CUW178	SAPS X-CONNECT & PUMP IMP 96A UEB	Joint	\$ 104,902	\$ -	\$ -	\$ 104,902		\$ 73,536
CUW202	Replace PCCP	Joint	\$ 50,808	\$ -	\$ -	\$ 50,808		\$ 35,616
CUW202		Joint	\$ 285,003	\$ 64,256	\$ -	\$ 349,259		\$ 244,831
CUW202		Joint	\$ 2,365	\$ -	\$ -	\$ 2,365		\$ 1,658
CUW127	SCADA	Joint	\$ 50,029	\$ 2,481,274	\$ -	\$ 2,531,303		\$ 1,774,443
CUW356	New Crystal Springs Bypass Tunnel	Joint	\$ 13,992,264	\$ 5,560,862	\$ 16,028,397	\$ 3,524,729		\$ 2,470,835
CUW358	Sunset (N)	Joint	\$ 52,494,764	\$ 4,887,980	\$ 55,806,081	\$ 1,576,663		\$ 1,105,241
CUW387	Tesla Portal Disinfection	Joint	\$ 2,377,262	\$ (1,996)	\$ 1,223,945	\$ 1,151,321		\$ 807,076
CUW135	New Lines and Bypass Valves	Joint	\$ 45,413	\$ -	\$ -	\$ 45,413		\$ 31,835
CUW135		Joint	\$ 153,983	\$ 620,156	\$ -	\$ 774,139		\$ 542,671
CUW135		Joint	\$ 8,860	\$ -	\$ -	\$ 8,860		\$ 6,211
CUW143	HH Water Treatment Plan	Joint	\$ 5,656	\$ -	\$ -	\$ 5,656		\$ 3,965
CUW143		Joint	\$ 709,972	\$ 8,817	\$ -	\$ 718,789		\$ 503,871
CUW143		Joint	\$ 96,292	\$ -	\$ -	\$ 96,292		\$ 67,501
CUW186	SVWTP IMPROVEMENT PROJECT-CPB-SFWD	Joint	\$ 3,604	\$ -	\$ -	\$ 3,604		\$ 2,526
CUW206	Tesla Portal/Thomas Shaft Emergency Disinfection	Joint	\$ 4,365	\$ -	\$ -	\$ 4,365		\$ 3,060
CUW206		Joint	\$ 283,620	\$ 5,665	\$ -	\$ 289,285		\$ 202,789
CUW206		Joint	\$ 227,004	\$ -	\$ -	\$ 227,004		\$ 159,130
CUW231	Millbrae Labs	Joint	\$ 81,856	\$ 34,685	\$ -	\$ 116,541		\$ 81,695
CUW236	TELSA/SJVH WQ MONITORING IMPR	Joint	\$ 152,963	\$ -	\$ -	\$ 152,963		\$ 107,227
CUW366	HTWTP ST Improvements	Joint	\$ 16,523	\$ -	\$ -	\$ 16,523		\$ 11,583
CUW366		Joint	\$ 1,398,798	\$ 5,732,626	\$ 7,131,424	\$ -		\$ -
CUW366		Joint	\$ 1,452,901	\$ -	\$ 1,452,901	\$ -		\$ -
CUW120	WATER QUALITY PLANNING STUDY	Joint	\$ 577	\$ -	\$ -	\$ 577		\$ 404
CUW164	WATER VULNERABILITY STUDY-UEB	Joint	\$ 479	\$ -	\$ -	\$ 479		\$ 336
CUW181	STANDBY POWER FACILITIES	Joint	\$ 5,905	\$ -	\$ -	\$ 5,905		\$ 4,139
CUW210	Millbrae Administrative Bldg Remodel	Joint	\$ 7,803	\$ 321,553	\$ -	\$ 329,356		\$ 230,879
CUW220	Calaveras Dam Evaluation	Joint	\$ 308,971	\$ -	\$ -	\$ 308,971		\$ 216,589
CUW227	Watershed Facilities and Fencing	Joint	\$ 190,552	\$ 206,448	\$ -	\$ 397,000		\$ 278,297
CUW228	Watershed Roads	Joint	\$ 358,434	\$ 85,337	\$ -	\$ 443,771		\$ 311,083
CUW232	Crystal Springs Dam Discharge	Joint	\$ 363,823	\$ -	\$ -	\$ 363,823		\$ 255,040
CUW242	Demolition of Unsafe Structures	Joint	\$ 311,548	\$ 22,741	\$ -	\$ 334,289		\$ 254,337
CUW242		Joint	\$ 315	\$ -	\$ -	\$ 315		\$ 221
CUW261	Regional R&R - Storage	Joint	\$ 275,694	\$ 277,958	\$ -	\$ 553,652		\$ 388,110
CUW262	Regional R&R - Treatment	Joint	\$ 1,236,895	\$ 409,282	\$ -	\$ 1,646,177		\$ 1,153,970
CUW262		Joint	\$ 277,383	\$ -	\$ -	\$ 277,383		\$ 194,445

**ATTACHMENT K-2**  
**WHOLESALE CUSTOMERS' SHARE OF THE BOOK VALUE OF REVENUE FUNDED CAPITAL EXPENDITURES**  
**\*\*PRELIMINARY - TO BE SUBSTITUTED WITH FINAL 6/30/09 VALUES\*\***  
**(Section 5.03)**

[1] Project No.	[2] Project Description	[3] Rate Class	[4] CWIP as of 6/30/08	[5] FY 2008-09 Expenditures	[6] Reduction for O2A Funding	[7] CWIP as of 6/30/09	[8] Water Related CWIP	[9] Wholesale Share
CUW263	Regional R&R - Transmission	Joint	\$ 768,422	\$ 797,659		\$ 1,566,081		\$ 1,097,823
CUW263		Joint	\$ 1,224,094	\$ -		\$ 1,224,094		\$ 858,090
CUW360	PLANNING - WSTD Sunol Quarry Reservoirs	Joint	\$ 2,513	\$ -		\$ 2,513		\$ 1,762
CUW934	BOA/BAW/13/F2/SFWD-CONT PROJ-OPER FD	Joint	\$ 59,479	\$ (2,210)	\$ 998,005	\$ (940,736)		\$ (659,456)
	TOTAL REGIONAL WATER PROJECTS		\$ 313,100,517	\$ 84,802,574	\$ 379,397,925	\$ 18,505,166		\$ 12,972,121
	Less Projects to be Capitalized in FY 2008-09					\$ 1,576,663		\$ 1,105,241
	ADJUSTED TOTAL REGIONAL WATER PROJECTS					\$ 16,928,503		\$ 11,866,881
<b>2. Wholesale Direct</b>								
	None							
<b>B. Hetch Hetchy Water &amp; Power</b>								
CUH703	Priest Reservoir By-pass	Joint	-	47,164		\$ 47,164	\$ 21,224	\$ 13,626
CUH762	SJPL Repairs	Water	53,616	255,011		\$ 308,627	\$ 308,627	\$ 198,139
CUH766	HH Security Improvements	Joint	164,478	261,601		\$ 426,079	\$ 191,736	\$ 123,094
CUH767	Power Transformers	Power	-	-		\$ -	\$ -	\$ -
CUH803	Street Lights	Power	-	40,506		\$ 40,506	\$ -	\$ -
CUH804	HH Roads	Joint	-	341,240		\$ 341,240	\$ 153,558	\$ 98,584
CUH829	HH SCADA	Joint	-	-		\$ -	\$ -	\$ -
CUH842	Moccasin Cottages Renovations	Joint	-	-		\$ -	\$ -	\$ -
CUH846	New Moccasin Penstock	Power	543,073	-		\$ 543,073	\$ -	\$ -
CUH851	Turbine Generator Renovations	Power	111,755	926,254		\$ 1,038,009	\$ -	\$ -
CUH868	Moccasin Energy Absorber	Power	-	-		\$ -	\$ -	\$ -
CUH876	Moccasin Phone System	Joint	-	15,677		\$ 15,677	\$ 7,055	\$ 4,529
CUH878	O'Shaugnessy Discharge/Toulumne River Channel Impr.	Joint	31,953	168,076		\$ 200,029	\$ 90,013	\$ 57,788
CUH891	Metering Muni Load	Power	18	4,361		\$ 4,379	\$ -	\$ -
CUH893	Cherry/Eleanor Pump Upgrade	Power	-	17,012		\$ 17,012	\$ -	\$ -
CUH896	Street Lights	Power	9,294	568,794		\$ 578,088	\$ -	\$ -
CUH899	Canyon Tunnel Penstock	Power	6,210	21,804		\$ 28,014	\$ -	\$ -
CUH915	UG Assessment/Hunters Point	Power	961,755	1,668,663		\$ 2,630,418	\$ -	\$ -
CUH926	Pipe Purchase	Water	-	13,667		\$ 13,667	\$ 13,667	\$ 8,774
CUH931	Microwave Replacement	Joint	3,157,491	156,270		\$ 3,313,761	\$ 1,491,192	\$ 957,346
CUH932	HH SCADA	Joint	-	-		\$ -	\$ -	\$ -
CUH825	Distribution System	Power	446,419	109,797		\$ 556,216	\$ -	\$ -
CUH941	HHP SCADA Security & Control, East/O'Shaugnessy	Joint	1,433,974	246,948		\$ 1,680,922	\$ 756,415	\$ 485,618
CUH942	O'Shaugnessy Dam Discharge Needle Valves	Joint	-	-		\$ -	\$ -	\$ -
CUH943	Renewable Energy	Power	-	-		\$ -	\$ -	\$ -
CUH945	SJPL Crossovers	Water	-	-		\$ -	\$ -	\$ -
CUH946	Facility Maintenance	Joint	-	239		\$ 239	\$ 108	\$ 69
CUH947	Sustainable Energy Account	Power	441,226	1,838,396		\$ 2,279,622	\$ -	\$ -
CUH948	Facility Maintenance - Transmission Lines	Power	70,631	101,295		\$ 171,926	\$ -	\$ -
CUH949	POW Maintenance	Power	-	-		\$ -	\$ -	\$ -
CUH950	HPP/KPH/MPH	Power	1,236,853	1,167,621		\$ 2,404,474	\$ -	\$ -
CUH955	Solar Monitoring	Power	222	-		\$ 222	\$ -	\$ -
CUH956	Facility Maintenance - Gate Valves	Water	275,213	-		\$ 275,213	\$ 275,213	\$ 176,687
CUH957	Moccasin Corrison Control	Joint	48,023	110,986		\$ 159,009	\$ 71,554	\$ 45,938
CUH958	Generation Metering	Power	-	18,811		\$ 18,811	\$ -	\$ -
CUH959	Moccasin Reservoir Water Quality	Water	109,379	-		\$ 109,379	\$ 109,379	\$ 70,221
CUH960	Solar Power Project	Power	6,480	(5,333)		\$ 1,147	\$ -	\$ -
CUH861	MECA Solar	Power	-	26,369		\$ 26,369	\$ -	\$ -
CUH962	SF Electrical Reliability	Power	9,672,565	2,653		\$ 9,675,218	\$ -	\$ -
CUH964	Watershed Lan Purchase	Water	-	75,756		\$ 75,756	\$ 75,756	\$ 48,635
CUH966	MECA - Demand Reduction	Power	-	-		\$ -	\$ -	\$ -
CUH969	SFJA SCADA	Power	-	-		\$ -	\$ -	\$ -
CUH971	Neward - CCSF Transmission Project	Power	235,120	54,602		\$ 289,722	\$ -	\$ -
CUH972	Load Metering	Power	145,039	1,274		\$ 146,313	\$ -	\$ -
CUH973	Distribution Assessment	Power	-	-		\$ -	\$ -	\$ -
CUH975	Hetch Hetchy Water R&R	Power	-	130,100		\$ 130,100	\$ -	\$ -
CUH975	Hetch Hetchy Water R&R	Water	52,613	516,524		\$ 569,137	\$ 569,137	\$ 365,386
CUH975	Hetch Hetchy Water R&R	Joint	999,854	887,864		\$ 1,887,718	\$ 849,473	\$ 545,362
CUH976	KPH Rewind	Power	1,053,295	1,417,914		\$ 2,471,209	\$ -	\$ -
CUH977	Facilities Maintenance - Water	Joint	770,899	1,049,878		\$ 1,820,717	\$ 819,323	\$ 526,005
CUH978	Community Choice Aggregation	Power	5,571	101,075		\$ 106,646	\$ -	\$ -
CUH979	Hunters Point Distribution	Power	1,926,977	532,011		\$ 2,458,988	\$ -	\$ -
CUH981	Shore Power for Cruise Ships	Power	2,690	-		\$ 2,690	\$ -	\$ -
CUH986	SEA - Energy Efficiency	Power	15,262	-		\$ 15,262	\$ -	\$ -
CUW687	525 Golden Gate	Joint	-	4,105		\$ 4,105	\$ 1,847	\$ 1,186
IUH004	Auto Maintenance	Joint	-	3,882		\$ 3,882	\$ 1,747	\$ 1,122
PUH501	SF Environment Energy/Green Power	Power	-	66,107		\$ 66,107	\$ -	\$ -
PYEAES	Youth Employment	Joint	-	-		\$ -	\$ -	\$ -
	TOTAL HHWP PROJECTS		23,987,888	12,964,974	-	36,952,862	5,807,023	3,728,109
<b>C</b>	<b>TOTAL COMBINED WATER AND HHWP</b>		<b>\$ 337,088,405</b>	<b>\$ 97,767,548</b>	<b>\$ 379,397,925</b>	<b>\$ 55,458,028</b>		<b>\$ 15,594,990</b>

**Notes**

- 6/30/08 CWIP per FAMIS
- FY 2008-09 Expenditures posted through 3/20/09 per FAMIS
- Wholesale share of CWIP 70.1% (see Note 5 Attachment K-1)
- Water Related HHWP CWIP includes 100% of Water and 45% of Joint
- Wholesale share of CWIP 64.2% (see Note 5 Attachment K-1)
- Fund 2A expenditures are funded by Series 2006A bond proceeds, proceeds of commercial paper redeemed from 2006A proceeds and earnings on such proceeds, as applicable.

**ATTACHMENT K-3**  
**25 YEAR PAYOFF SCHEDULE FOR EXISTING RATE BASE**  
**WATER ENTERPRISE REGIONAL ASSETS AND ONE DIRECT WHOLESALE ASSET**  
**\*\*PRELIMINARY - TO BE SUBSTITUTED WITH FINAL 6/30/09 VALUES\*\***  
**(Section 5.03)**

	<u>Water Assets</u>
6/30/09 Wholesale Share of Net Plant & CWIP (Attachment K-1)	338,452,207
Interest Rate:	5.13%
Term:	25
Monthly Principal & Interest Calculation:	2,004,277
Annual Wholesale Revenue Requirement:	24,051,326

Fiscal Yr Ending	Principal	Interest	Annual Payment (Wtr)	Year End Balance
Jun-10	6,848,259	17,203,067	<b>24,051,326</b>	331,603,948
Jun-11	7,207,954	16,843,372	<b>24,051,326</b>	324,395,994
Jun-12	7,586,541	16,464,785	<b>24,051,326</b>	316,809,453
Jun-13	7,985,013	16,066,313	<b>24,051,326</b>	308,824,439
Jun-14	8,404,415	15,646,911	<b>24,051,326</b>	300,420,024
Jun-15	8,845,844	15,205,482	<b>24,051,326</b>	291,574,180
Jun-16	9,310,459	14,740,867	<b>24,051,326</b>	282,263,721
Jun-17	9,799,478	14,251,848	<b>24,051,326</b>	272,464,243
Jun-18	10,314,181	13,737,145	<b>24,051,326</b>	262,150,062
Jun-19	10,855,919	13,195,407	<b>24,051,326</b>	251,294,143
Jun-20	11,426,110	12,625,216	<b>24,051,326</b>	239,868,033
Jun-21	12,026,250	12,025,076	<b>24,051,326</b>	227,841,784
Jun-22	12,657,911	11,393,415	<b>24,051,326</b>	215,183,873
Jun-23	13,322,749	10,728,577	<b>24,051,326</b>	201,861,123
Jun-24	14,022,507	10,028,819	<b>24,051,326</b>	187,838,616
Jun-25	14,759,019	9,292,307	<b>24,051,326</b>	173,079,597
Jun-26	15,534,215	8,517,111	<b>24,051,326</b>	157,545,382
Jun-27	16,350,127	7,701,199	<b>24,051,326</b>	141,195,254
Jun-28	17,208,894	6,842,432	<b>24,051,326</b>	123,986,361
Jun-29	18,112,766	5,938,560	<b>24,051,326</b>	105,873,594
Jun-30	19,064,113	4,987,213	<b>24,051,326</b>	86,809,482
Jun-31	20,065,428	3,985,898	<b>24,051,326</b>	66,744,054
Jun-32	21,119,335	2,931,991	<b>24,051,326</b>	45,624,719
Jun-33	22,228,597	1,822,729	<b>24,051,326</b>	23,396,122
Jun-34	23,396,122	655,204	<b>24,051,326</b>	0
Totals:	338,452,207	262,830,943	601,283,150	

**ATTACHMENT K-4**  
**25 YEAR PAYOFF SCHEDULE FOR EXISTING RATE BASE**  
**HETCH HETCHY WATER ASSETS AND WATER-RELATED PORTION OF JOINT ASSETS**  
**\*\*PRELIMINARY - TO BE SUBSTITUTED WITH FINAL 6/30/09 VALUES\*\***  
**(Section 5.03)**

	<u>Hetch Hetchy</u>
6/30/09 Wholesale Share of Net Plant & CWIP (Attachment K-1)	43,877,206
Interest Rate:	5.13%
Term:	25
Monthly Principal & Interest Calculation:	259,836
Annual Wholesale Revenue Requirement:	3,118,033

Fiscal Yr Ending	Principal	Interest	Annual Payment (HH)	Year End Balance
Jun-10	887,814	2,230,219	<b>3,118,033</b>	42,989,393
Jun-11	934,445	2,183,588	<b>3,118,033</b>	42,054,948
Jun-12	983,525	2,134,507	<b>3,118,033</b>	41,071,423
Jun-13	1,035,183	2,082,849	<b>3,118,033</b>	40,036,239
Jun-14	1,089,555	2,028,478	<b>3,118,033</b>	38,946,685
Jun-15	1,146,782	1,971,250	<b>3,118,033</b>	37,799,903
Jun-16	1,207,015	1,911,017	<b>3,118,033</b>	36,592,887
Jun-17	1,270,412	1,847,621	<b>3,118,033</b>	35,322,475
Jun-18	1,337,138	1,780,894	<b>3,118,033</b>	33,985,337
Jun-19	1,407,370	1,710,663	<b>3,118,033</b>	32,577,967
Jun-20	1,481,290	1,636,743	<b>3,118,033</b>	31,096,678
Jun-21	1,559,092	1,558,940	<b>3,118,033</b>	29,537,585
Jun-22	1,640,981	1,477,051	<b>3,118,033</b>	27,896,604
Jun-23	1,727,172	1,390,861	<b>3,118,033</b>	26,169,432
Jun-24	1,817,889	1,300,144	<b>3,118,033</b>	24,351,544
Jun-25	1,913,371	1,204,662	<b>3,118,033</b>	22,438,173
Jun-26	2,013,868	1,104,165	<b>3,118,033</b>	20,424,305
Jun-27	2,119,643	998,389	<b>3,118,033</b>	18,304,662
Jun-28	2,230,974	887,058	<b>3,118,033</b>	16,073,688
Jun-29	2,348,153	769,880	<b>3,118,033</b>	13,725,535
Jun-30	2,471,486	646,546	<b>3,118,033</b>	11,254,048
Jun-31	2,601,298	516,735	<b>3,118,033</b>	8,652,751
Jun-32	2,737,927	380,106	<b>3,118,033</b>	5,914,824
Jun-33	2,881,733	236,300	<b>3,118,033</b>	3,033,091
Jun-34	3,033,091	84,941	<b>3,118,033</b>	0
	43,877,206	34,073,607	77,950,813	



**ATTACHMENT K-5  
UNEXPENDED APPROPRIATIONS FOR REVENUE-FUNDED REGIONAL ASSETS  
CONSTRUCTION WORK IN PROGRESS AS OF MARCH 30, 2009  
(Section 5.04)**

Project	Project Title	Fund Type	Subfund	Classification	Appropriation	YTD Expenditures	PTD Expenditures	Encumbrances	Available Balances	Notes
CUW257	WATERSHED PROTECTION	5W	AAAAACP	REGIONAL	1,448,720	29,653	413,529	141,643	893,548	
CUW250	WATERSHED TRAILS&RECREATION IMPROV	5W	AAAAACP	REGIONAL	387,639	9,431	112,689	6,675	268,275	
CUW261	REGIONAL WATER STORAGE RNR -BUDGET	5W	AAAAACP	REGIONAL	1,750,000	250,970	526,664	26,687	1,196,648	Annual R&R
CUW242	DEMOLITION UNSAFE STRUCTURES	5W	AAAAACP	REGIONAL	1,000,000	22,647	407,820	21,524	570,656	
CUW263	CONVEYANCE/TRANSMISSION - BUDGET	5W	AAAAACP	REGIONAL	7,825,000	763,603	3,378,543	125,990	4,320,466	Annual R&R
CUW264	WATERSHED ROADS - BUDGET	5W	AAAAACP	REGIONAL	3,000,000	77,074	1,391,500	162,401	1,446,099	Annual R&R
CUW262	TREATMENT FACSWQ IMPROVE-BUDGET	5W	AAAAACP	REGIONAL	4,801,000	399,073	2,704,204	349,016	1,747,780	Annual R&R
CUW168	ALAMEDA CREEK FISH RELEASE	5W	AAAAACP	REGIONAL	1,537,398	46,624	1,040,919	152,647	343,832	
CUW231	MILLBRAE LAB CAPITAL IMPROVEMENTS	5W	AAAAACP	REGIONAL	770,000	19,119	532,135	0	237,865	
CUW227	WATERSHED FENCES/FACILITIES	5W	AAAAACP	REGIONAL	3,000,000	206,222	2,223,776	581,926	194,298	
CUW253	FACILITIES SECURITY PROJECT	5W	AAAAACP	REGIONAL	5,300,000	73,048	4,146,944	113,124	1,039,931	
CUW210	MILLBRAE ADMIN BLDG INTERIM REMODEL	5W	AAAAACP	REGIONAL	2,407,700	284,902	1,935,204	160	472,337	
CUW228	WATERSHED ROADS RECONSTRUCTION	5W	AAAAACP	REGIONAL	5,170,000	82,952	4,413,061	18,598	738,340	
CUW202	SAN ANTONIO PIPELINE EMERGENCY REPA	5W	AAAAACP	REGIONAL	1,400,000	6,012	1,269,190	61,727	69,083	
CUW148	ENVIRONMENTAL & REGULATORY COMP	5W	AAAAACP	REGIONAL	3,241,279	0	3,014,995	184,774	41,510	
CUW135	NEW LINE & BYPASS VALVES	5W	AAAAACP	REGIONAL	4,829,680	2,103	4,689,067	47,947	140,613	
CUW143	HETCH HETCHY WATER TREATMENT PLAN	5W	AAAAACP	REGIONAL	18,821,529	0	18,452,053	371,476	321,529	
CUW161	TREATMENT FACILITIES IMPROVEMENTS	5W	AAAAACP	REGIONAL	15,028,319	334	14,747,873	0	280,446	
CUW241	FACILITIES MAINT SUPPORT STRUCTURES	5W	AAAAACP	REGIONAL	5,000,000	8,390	4,988,882	0	11,118	
CUW392	PROGRAM MANAGEMENT SERVICES - WSIF	5W	AAAAACP	LOCAL/REGIONAL	1,837,000	(98,519)	751,659	71,973	1,013,368	
CUW127	INST SCADA SYSTEM	5W	AAAAACP	LOCAL/REGIONAL	13,156,681	2,481,274	8,653,641	0	4,503,040	
CUW710	OCIP PROJECT CONTROL	5W	AAAAACP	LOCAL/REGIONAL	2,497,881	235,706	2,496,959	0	922	
	TOTAL ALL PROJECTS				104,209,826	4,900,661	82,291,307	2,066,813	19,851,706	
	LOCAL PROJECTS			LOCAL	0	0	0	0	0	
	REGIONAL AND REGIONAL PROJECTS			LOCAL/REGIONAL	17,491,562	2,618,462	11,902,259	71,973	5,517,330	
	REGIONAL PROJECTS			REGIONAL	86,718,264	2,282,199	70,389,048	1,994,840	14,334,376	
	TOTAL ALL PROJECTS				104,209,826	4,900,661	82,291,307	2,066,813	19,851,706	
				<u>Hetchy Hetchy Assets</u>						
CUH975	WATER INFRASTRUCTURE - BUDGET	5T	AAAAACP	WATER	9,000,000	1,534,488	2,806,592	3,565,023	2,628,385	
CUH964	WATERSHED PROPERTY PURCHASES	5T	AAAAACP	WATER	800,000	75,756	454,756	0	345,244	
CUH957	FAC MAINTENANCE-WATER TRANSPORTAT	5T	AAAAACP	WATER	3,400,000	110,986	2,885,394	209,138	305,469	
CUH703	PRIEST RESERVOIR DIVERSION CHANNEL	5T	AAAAACP	WATER	21,210,344	47,164	20,166,993	0	1,043,351	
CUH826	PIPELINE PURCHASE REPLACEMENT PIPE	5T	AAAAACP	WATER	159,860	13,667	157,489	0	2,371	
CUH762	SAN JOAQUIN PIPELINE REPAIRS	5T	AAAAACP	WATER	41,469,206	255,011	41,215,761	134,652	118,792	
CUW687	525 GOLDEN GATE	5T	AAAAACP	JOINT	280,600	4,105	26,437	0	254,163	
CUH977	FACILITIES MAINTENANCE - BUDGET	5T	AAAAACP	JOINT	9,300,000	1,049,878	3,578,478	803,231	4,918,290	
CUH931	HH MICROWAVE REPLACEMENT	5T	AAAAACP	JOINT	4,767,000	156,270	3,313,761	1,227,242	225,997	
CUH941	HH SCADA SECURITY & CONTROL, EAST	5T	AAAAACP	JOINT	2,068,180	246,948	1,680,922	256,198	131,060	
CUH804	HETCH-HETCHY ROADS REBUILDING	5T	AAAAACP	JOINT	4,175,027	341,240	3,544,483	113,314	517,230	
CUH766	HETCHY FACILITIES SECURITY IMPROV.	5T	AAAAACP	JOINT	2,086,692	261,601	1,960,386	62,470	63,836	
CUH876	MOCCASIN PHONE SYSTEM	5T	AAAAACP	JOINT	1,610,000	15,677	1,528,780	0	81,220	
CUH878	O'SHAUGNESSY DIS REPAIRS	5T	AAAAACP	JOINT	7,179,009	33,750	7,101,644	9,297	68,068	
CUH810	VARIOUS OLD JOB	5T	AAAAACP	JOINT	7,613,638	18,690	7,538,034	1,561	74,044	
CUH946	FAC MAINTENANCE-SUPPORT STRUCTURE	5T	AAAAACP	JOINT	2,281,454	239	2,273,485	0	7,969	
CUH949	RIGHT OF WAY MAINTENANCE	5T	AAAAACP	JOINT	815,000	0	814,208	166	626	
	TOTAL ALL PROJECTS				118,216,010	4,165,470	101,047,602	6,382,292	10,786,117	
	POWER PROJECTS			POWER	0	0	0	0	0	
	WATER PROJECTS			WATER	76,039,410	2,037,072	67,686,985	3,908,812	4,443,613	
	JOINT PROJECTS			JOINT	42,176,600	2,128,397	33,360,617	2,473,480	6,342,504	
	TOTAL ALL PROJECTS				118,216,010	4,165,470	101,047,602	6,382,292	10,786,117	

**ATTACHMENT L-1  
IDENTIFICATION OF WSIP PROJECTS AS REGIONAL/RETAIL  
(Section 5.04)**

<b>Project Number</b>		<b>Project Description</b>
<b>REGIONAL</b>		
<b>San Joaquin Region</b>		
CUW373	Regional	San Joaquin Pipeline System Rehabilitation
CUW384	Regional	Tesla Advance Disinfection
CUW387	Regional	Tesla Portal Disinfection
<b>Sunol Valley Region</b>		
CUW352	Regional	Alameda Creek Fishery Enhancement
CUW355	Regional	Stand-by Power - Various Locations
CUW359	Regional	New Irvington Tunnel/Alameda Siphon No. 4
CUW370	Regional	Pipeline Readiness Improvements
CUW374	Regional	Calaveras Dam Replacement
CUW381	Regional	SWWTP 40 mgd Addition
CUW382	Regional	SWWTP Finished Water Reservoir
CUW386	Regional	San Antonio Pump Station Upgrade
<b>Bay Division Region</b>		
CUW353	Regional	Seismic Upgrade BDPL 3 & 4
CUW363	Regional	SCADA Phase II/Security Upgrades
CUW368	Regional	BDPL Reliability Upgrades
CUW380	Regional	BDPL 3 & 4 Crossover
CUW389	Regional	EBMUD Intertie
CUW393	Regional	BDPL 4 Slipline
<b>Peninsula Region</b>		
CUW354	Regional	Lower Crystal Springs Dam Improvement
CUW356	Regional	Crystal Springs Bypass Tunnel
CUW357	Regional	Adit Leak Repairs
CUW361	Regional	Pulgas Balancing Reservoir Rehabilitation and Improvements
CUW365	Regional	Cross Connection Control
CUW366	Regional	HTWTP Short Term Improvements
CUW367	Regional	HTWTP Long Term Improvements
CUW369	Regional	Capuchino Valve Lot Improvements
CUW371	Regional	Crystal Springs/San Andreas Transmission
CUW378	Regional	Crystal Springs Pipeline 2 Replacement
CUW379	Regional	San Andreas Pipeline 3 Installation
CUW390	Regional	Desalination
CUW391	Regional	Baden & San Pedro Valve Lots Improvements

**ATTACHMENT L-1  
IDENTIFICATION OF WSIP PROJECTS AS REGIONAL/RETAIL  
(Section 5.04)**

<b>Project Number</b>	<b>Project Description</b>	
<b>San Francisco Region</b>		
CUW358	Regional	Sunset Reservoir Upgrades - North Basin
CUW372	Regional	University Mound Reservoir Upgrades - North Basin
<b>System-Wide</b>		
CUW388	Regional	PEIR
CUW392	Regional	Program Management Services
CUW394	Regional	Watershed Land Acquisition
<b>RETAIL</b>		
<b>Reservoirs</b>		
CUW307	Local	Summit Reservoir Rehabilitation
CUW310	Local	New Northwest Reservoir
CUW319	Local	Hunters Point Reservoir Rehabilitation
CUW334	Local	Stanford Heights Reservoir Rehabilitation
CUW335	Local	Potrero Heights Reservoir Rehabilitation
CUW337	Local	Sutro Reservoir Rehabilitation
<b>Pump Stations/Tanks</b>		
CUW306	Local	Crocker Amazon Pump Station Upgrade
CUW309	Local	Lake Merced Pump Station Upgrade
CUW314	Local	La Grande Tank Upgrade
CUW318	Local	Forest Hill Tank Rehabilitation
CUW320	Local	Forest Hill Pump Station Upgrade
CUW321	Local	Forest Knoll Pump Station Upgrade
CUW322	Local	Lincoln Park Pump Station Upgrade
CUW323	Local	Alemanys Pump Station Upgrade
CUW324	Local	Mount Davidson Pump Station Upgrade
CUW326	Local	Palo Alto Pump Station Upgrade
CUW326	Local	Sktview-AquaVista Pump Station Upgrade
CUW327	Local	Summit Pump Station Upgrade
CUW328	Local	McLaren #1 Tank Rehabilitation
CUW329	Local	Potrero Heights Tank Seismic Upgrade
CUW330	Local	Forest Knoll Tank Seismic Upgrade
CUW331	Local	Lincoln Park Tank Seismic Upgrade
CUW332	Local	McLaren #2 Tank Rehabilitation
CUW333	Local	Mount Davidson Tank Seismic Upgrade
CUW338	Local	La Grande Pump Station Upgrade
CUW339	Local	Potrero Heights Pump Station Upgrade
CUW340	Local	Vista Francisco Pump Station Upgrade

**ATTACHMENT L-1  
IDENTIFICATION OF WSIP PROJECTS AS REGIONAL/RETAIL  
(Section 5.04)**

<b>Project Number</b>		<b>Project Description</b>
		<b>Pipelines/Valves</b>
CUW304	Local	North University Mound System Upgrade
CUW308	Local	Motorize Key Valves
CUW311	Local	Sunset Circulation Improvements
CUW312	Local	Lincoln Way Transmission Line
CUW313	Local	Noe Valley Transmission Main, Phase 2
CUW315	Local	East/West Transmission Main
CUW316	Local	Fulton @ Sixthe Ave Main Replacement
		<b>Water Supply/Water Quality</b>
CUW301	Local	Groundwater
CUW302	Local	Recycled Water
CUW364	Local	Lawrence-Livermore National Laboratory Water Quality Improvements
		<b>Miscellaneous</b>
CUW303	Local	Vehicle Service Facility Upgrade
CUW305	Local	Fire Protection at CCD

03/13/06

**\$507,815,000**  
**PUBLIC UTILITIES COMMISSION**  
**OF THE CITY AND COUNTY OF SAN FRANCISCO**  
**SAN FRANCISCO WATER REVENUE BONDS, 2006 SERIES A**

**\$110,065,000**  
**PUBLIC UTILITIES COMMISSION**  
**OF THE CITY AND COUNTY OF SAN FRANCISCO**  
**SAN FRANCISCO WATER REVENUE BONDS, 2006 REFUNDING SERIES B**

**CERTIFICATE REGARDING USE OF PROCEEDS**

The undersigned hereby states and certifies as follows:

(i) The undersigned is the General Manager of the Public Utilities Commission of the City and County of San Francisco (the "Commission"), and is authorized to execute this certificate on behalf of the Commission and is knowledgeable with respect to the matters set forth herein.

(ii) On the date hereof, the Commission is issuing the two series of bonds captioned above (the "2006 Series A Bonds," the "2006 Refunding Series B Bonds" and, together, the "Bonds") pursuant to an Amended and Restated Indenture dated as of August 1, 2002 and the First Supplemental Indenture dated as of March 1, 2006 (collectively, the "Indenture"), both by and between the Commission and U.S. Bank National Association, as trustee (the "Trustee").

(iii) The Trustee will transfer and deposit the proceeds of the 2006 Series A Bonds received by the Trustee on the date hereof as follows:

(1) \$48,212,528.32 will be deposited in the 2006 Series A Capitalized Interest Account established within the Interest Fund;

(2) \$15,958,031.25 will be deposited in the 2006 Series A Reserve Account of the Bond Reserve Fund;

(3) \$623,906.09 will be deposited in the 2006 Series A Costs of Issuance Fund;

(4) \$120,622,352.19 will be deposited in the 2006 Series A Refunding Fund and transferred pursuant to Irrevocable Refunding Instructions of the Commission dated the date hereof; and

(5) the remaining \$338,600,816.86 will be transferred to the Treasurer for deposit to the 2006 Series A Project Fund.

(iv) The proceeds of the 2006 Series A Bonds transferred pursuant to the Irrevocable Refunding Instructions of the Commission will be used to defease and refund the Commission's Commercial Paper Notes (Water Series) on a current basis. The Notes were issued to finance a portion of the facilities described in Exhibit A hereto.

(v) The proceeds of the Bonds deposited in the 2006 Series A Project Fund will be used to finance a portion of the facilities described in Exhibit A hereto.

(vi) The Trustee will transfer and deposit the proceeds of the 2006 Refunding Series B Bonds received by the Trustee on the date hereof as follows:

(1) \$192,498.04 will be deposited in the 2006 Refunding Series B Costs of Issuance Fund; and

(2) \$111,178,241.95 will be deposited in the 2006 Refunding Series B Refunding Fund.

(vii) The proceeds of the Bonds deposited in the 2006 Refunding Series B Refunding Fund, together with amounts on deposit in the funds and accounts established under the Indenture for the Commission's San Francisco Water Revenue Bonds, 1996 Series A (the "1996 Series A Bonds") and its San Francisco Water Revenue Bonds, 2001 Series A (the "2001 Series A Bonds"), will be used to refund on an advance basis a portion of the outstanding 1996 Series A Bonds and a portion of the outstanding 2001 Series A Bonds. The portion of the 1996 Series A Bonds being refunded were issued to finance the facilities (the "1996 Project") described in Exhibit B hereto, and the portion of the 2001 Series A Bonds being refunded were used to finance the facilities (the "2001 Project") described in Exhibit B hereto.

(viii) Exhibit C hereto attached describes (A) each use to be made by any person of the Project, the 1996 Project and the 2001 Project other than use by the Commission and other non-federal governmental units and other than use by members of the public generally, and (B) payments (if any) directly or indirectly in respect of such use which are to be made after the date hereof;

(ix) Other than as set forth in Exhibit A and Exhibit B, no portion of the proceeds of the Bonds will be used, directly or indirectly, to make or finance a loan to any person (other than a State or local government unit) or to acquire property which will be sold or leased to any person (other than a State or local government unit) on an installment a sale basis except as referenced in Exhibit C.

(x) The Commission expects to use the Project for the purposes referenced and discussed in Exhibit A, Exhibit B, Exhibit C and Exhibit D or for other governmental purposes of the Commission during the entire term of the Bonds.

(xi) Set forth on Exhibit D is the Commission's methodology for determining governmental use and private use with respect to the water enterprise.

(xii) To the best knowledge of the undersigned, the above statements are reasonable and there are no other facts, estimates or circumstances, other than those set forth herein, that would materially affect the statements made herein.

Capitalized terms used but not defined herein have the meanings set forth in the Indenture.

IN WITNESS WHEREOF, I have hereunto set my name this 15th day of March, 2006.

PUBLIC UTILITIES COMMISSION OF THE  
CITY AND COUNTY OF SAN FRANCISCO

By:   
General Manager

**ATTACHMENT L-2 (CONTINUED)**  
**WATER ENTERPRISE REVENUE BOND 2006 SERIES A**  
**SUMMARY OF SOURCES AND USES OF FUNDS**  
**(Section 5.04)**

**Source: Closing Documents (Certificate Regarding Use of Proceeds)**

**Proceeds**

Principal	507,815,000.00
Plus Premium	19,109,138.35
Minus Underwriter's Discount	(932,940.06)
Minus Insurance	<u>(1,973,563.58)</u>
Net Proceeds	524,017,634.71

**Use of Proceeds**

Capitalized Interest Fund	48,212,528.32	
Bond Reserve Fund	15,958,031.25	
Insurance Fund	623,906.09	
Series A Refunding Fund	120,622,352.19	} 459,223,169.05
Series A Project Fund	<u>338,600,816.86</u>	
Total Uses	524,017,634.71	

	<b>Commercial Paper</b>	<b>Project Fund</b>	<b>Total</b>
<b>Hetch Hetchy</b>			
Tesla Portal Disinfection	251,262.58	1,147,302.42	1,398,565.00
Advance Disinfection	429,714.76	5,611,554.24	6,041,269.00
SJPL	<u>4,737,937.28</u>	<u>17,784,667.72</u>	<u>22,522,605.00</u>
Total Hetch Hetchy	5,418,914.62	24,543,524.38	29,962,439.00
<b>SF Regional</b>			
University Mound - North	55,728.10	5,964,279.90	6,020,008.00
Sunset - North	7,525,896.84	28,782,094.16	36,307,991.00
Groundwater	3,400,973.67	2,963,110.33	6,364,084.00
Recycled Water	<u>1,548,036.76</u>	<u>11,316,958.24</u>	<u>12,864,995.00</u>
Total SF Regional	12,530,635.37	49,026,442.63	61,557,078.00
<b>SF Local</b>	45,405,787.71	106,407,313.30	151,813,101.01
<b>Sunol Valley Subregional</b>			
Calaveras Dam	9,065,945.51	15,993,818.49	25,059,764.00
Stand-by Power	556,398.67	1,207,319.33	1,763,718.00
Pipeline Readiness	649,566.31	4,942,205.69	5,591,772.00
SAPS Upgrade	213,423.44	1,748,134.56	1,961,558.00
SVWTP Finished Water Res	3,317,203.82	7,838,383.18	11,155,587.00
Irvington Tunnel	4,084,139.65	18,247,176.35	22,331,316.00
Alameda Creek Fishery	656,765.00	1,327,119.00	1,983,884.00
SVWTP 40 mgd Addition	<u>25,378.75</u>	<u>3,474,585.25</u>	<u>3,499,964.00</u>
Total Sunol Valley Subregional	18,568,821.15	54,778,741.85	73,347,563.00

**ATTACHMENT L-2 (CONTINUED)**  
**WATER ENTERPRISE REVENUE BOND 2006 SERIES A**  
**SUMMARY OF SOURCES AND USES OF FUNDS**  
**(Section 5.04)**

Miscellaneous			
PEIR	3,204,177.44	5,103,872.56	8,308,050.00
PPPCMS Services	2,964,786.31	10,358,811.69	13,323,598.00
Watershed Land Acquisition	-	502,660.00	502,660.00
Total Miscellaneous	6,168,963.75	15,965,344.25	22,134,308.00
LLNL	133,156.60	282,702.40	415,859.00
Bay Division Subregional			
Seismic Upgrade BDPL 3 & 4	4,758,306.54	16,481,539.46	21,239,846.00
BDPL Reliability	4,360,664.44	40,874,800.56	45,235,465.00
BDPL 3 & 4 Crossover	802,494.94	493,817.06	1,296,312.00
SCADA Phase II	65,497.37	1,247,963.63	1,313,461.00
EBMUD Intertie	6,668,906.37	4,075,015.63	10,743,922.00
BDPL 4 Slipline	-	1,219,251.00	1,219,251.00
Total Bay Division Subregional	16,655,869.66	64,392,387.34	81,048,257.00
Peninsula Subregional			
Capuchino Valve Lot	162,584.69	753,779.31	916,364.00
CS/SA Transmission	2,288,853.10	3,448,975.90	5,737,829.00
Adit Leak Repair	255,334.99	1,650,368.01	1,905,703.00
HTWTP Short Term	2,874,763.69	3,582,860.31	6,457,624.00
Cross Connection Control	1,150,559.48	324,549.52	1,475,109.00
CS Bypass Tunnel	2,873,475.22	15,532,584.78	18,406,060.00
LCS Dam Improvement	931,587.07	3,278,932.93	4,210,520.00
Pulgas Balancing Reservoir	1,218,341.39	2,706,284.61	3,924,626.00
HTWTP Long Term	1,107,185.77	2,549,793.23	3,656,979.00
Baden & San Pedro Valve Lots	60,203.48	2,963,540.52	3,023,744.00
Total Peninsula Subregional	12,922,888.88	36,791,669.12	49,714,558.00
San Francisco Subregional			
CSPL 2 Replacement	1,269,111.95	5,019,824.05	6,288,936.00
SAPL 3	1,492,584.40	1,942,479.60	3,435,064.00
Desalination	55,618.10	596,473.90	652,092.00
Total San Francisco Subregional	2,817,314.45	7,558,777.55	10,376,092.00
Grand Total	120,622,352.19	359,746,902.82	480,369,255.01
Regional			328,140,295.00
Local			152,228,960.01
			480,369,255.01

68.31%  
31.69%

This certificate is for illustration only. It was prepared in 2006 and shown groundwater and recycled water projects as regional instead of local. In addition, it does not reflect expenditures for the portions of regional assets which in rate base as of June 30, 2008 nor what is expected to be added to rate base through June 30, 2009. For these reasons, the percentages shown for regional and local projects are not accurate.



ATTACHMENT L-3  
WATER ENTERPRISE REVENUE BOND 2006 SERIES A  
ANNUAL REPORT ON EXPENDITURES OF AND EARNINGS ON PROCEEDS  
AS OF JUNE 30, 2009  
(Section 5.04 A)

Project Number		Project Description	Net Financing Proceeds <sup>1</sup>	Appropriated Interest Earnings <sup>2</sup>	Adjusted Project Funding	Expenditures Thru 6/30/09 <sup>3</sup>	Remaining Balance
<b>REGIONAL PROGRAM</b>							
<b>San Joaquin Region</b>							
CUW373	Regional	San Joaquin Pipeline System Rehabilitation	1,398,565				
CUW384	Regional	Tesla Advance Disinfection	6,041,269				
CUW387	Regional	Tesla Portal Disinfection	22,522,605				
<b>Total San Joaquin Region</b>			<b>29,962,439</b>				
<b>Sunol Valley Region</b>							
CUW352	Regional	Alameda Creek Fishery Enhancement	1,983,884				
CUW355	Regional	Stand-by Power - Various Locations	1,763,718				
CUW359	Regional	New Irvington Tunnel/Alameda Siphon No. 4	22,331,316				
CUW370	Regional	Pipeline Readiness Improvements	5,591,772				
CUW374	Regional	Calaveras Dam Replacement	25,059,764				
CUW381	Regional	SVWTP 40 mgd Addition	3,499,964				
CUW382	Regional	SVWTP Finished Water Reservoir	11,155,587				
CUW386	Regional	San Antonio Pump Station Upgrade	1,961,558				
<b>Total Sunol Valley Region</b>			<b>73,347,563</b>				
<b>Bay Division Region</b>							
CUW353	Regional	Seismic Upgrade BDPL 3 & 4	21,234,846				
CUW363	Regional	SCADA Phase II/Security Upgrades	1,313,461				
CUW368	Regional	BDPL Reliability Upgrades	45,235,465				
CUW380	Regional	BDPL 3 & 4 Crossover	21,239,846				
CUW389	Regional	EBMUD Intertie	10,743,922				
CUW393	Regional	BDPL 4 Slipline	1,219,251				
<b>Total Bay Division Region</b>			<b>100,986,791</b>				
<b>Peninsula Region</b>							
CUW354	Regional	Lower Crystal Springs Dam Improvement	4,210,520				
CUW356	Regional	Crystal Springs Bypass Tunnel	18,406,090				
CUW357	Regional	Adit Leak Repairs	1,905,703				
CUW361	Regional	Pulgas Balancing Reservoir Rehabilitation and Improvements	3,824,626				
CUW365	Regional	Cross Connection Control	1,475,109				
CUW366	Regional	HTWTP Short Term Improvements	6,457,624				
CUW367	Regional	HTWTP Long Term Improvements	3,656,979				
CUW369	Regional	Capuchino Valve Lot Improvements	916,364				
CUW371	Regional	Crystal Springs/San Andreas Transmission	5,737,829				
CUW378	Regional	Crystal Springs Pipeline 2 Replacement	6,288,936				
CUW379	Regional	San Andreas Pipeline 3 Installation	3,435,064				
CUW390	Regional	Desalination	652,092				
CUW391	Regional	Baden & San Pedro Valve Lots Improvements	3,023,744				
<b>Total Peninsula Region</b>			<b>60,090,650</b>				
<b>San Francisco Region</b>							
CUW358	Regional	Sunset Reservoir Upgrades - North Basin	6,020,008				
CUW372	Regional	University Mound Reservoir Upgrades - North Basin	36,307,991				
<b>Total San Francisco Region</b>			<b>42,327,999</b>				
<b>System-Wide</b>							
CUW388	Regional	PEIR	8,308,050				
CUW392	Regional	Program Management Services	13,323,598				
CUW394	Regional	Watershed Land Acquisition	502,660				
<b>Total System-Wide</b>			<b>22,134,308</b>				
<b>Total Regional Program</b>			<b>328,849,750</b>				
<b>LOCAL PROGRAM</b>							
<b>Reservoirs</b>							
CUW307	Local	Summit Reservoir Rehabilitation					
CUW310	Local	New Northwest Reservoir					
CUW319	Local	Hunters Point Reservoir Rehabilitation					
CUW334	Local	Stanford Heights Reservoir Rehabilitation					
CUW335	Local	Potrero Heights Reservoir Rehabilitation					
CUW337	Local	Sutro Reservoir Rehabilitation					
<b>Total Reservoirs</b>							
<b>Pump Stations/Tanks</b>							
CUW306	Local	Crocker Amazon Pump Station Upgrade					
CUW309	Local	Lake Merced Pump Station Upgrade					
CUW314	Local	La Grande Tank Upgrade					
CUW318	Local	Forest Hill Tank Rehabilitation					
CUW320	Local	Forest Hill Pump Station Upgrade					
CUW321	Local	Forest Knoll Pump Station Upgrade					
CUW322	Local	Lincoln Park Pump Station Upgrade					
CUW323	Local	Alemany Pump Station Upgrade					
CUW324	Local	Mount Davidson Pump Station Upgrade					

ILLUSTRATIVE ONLY DRAFT

**WATER ENTERPRISE REVENUE BOND 2006 SERIES A**  
**ANNUAL REPORT ON EXPENDITURES OF AND EARNINGS ON PROCEEDS**  
**AS OF JUNE 30, 2009**  
**(Section 5.04 A)**

Project Number	Project Description	Net Financing Proceeds <sup>1</sup>	Appropriated Interest Earnings <sup>2</sup>	Adjusted Project Funding	Expenditures Thru 6/30/09 <sup>3</sup>	Remaining Balance
CUW326	Local Palo Alto Pump Station Upgrade					
CUW326	Local Sktview-AquaVista Pump Station Upgrade					
CUW327	Local Summit Pump Station Upgrade					
CUW328	Local McLaren #1 Tank Rehabilitation					
CUW329	Local Potrero Heights Tank Seismic Upgrade					
CUW330	Local Forest Knoll Tank Seismic Upgrade					
CUW331	Local Lincoln Park Tank Seismic Upgrade					
CUW332	Local McLaren #2 Tank Rehabilitation					
CUW333	Local Mount Davidson Tank Seismic Upgrade					
CUW338	Local La Grande Pump Station Upgrade					
CUW339	Local Potrero Heights Pump Station Upgrade					
CUW340	Local Vista Francisco Pump Station Upgrade					
	<b>Total Pump Stations/Tanks</b>					
	<b>Pipelines/Valves</b>					
CUW304	Local North University Mound System Upgrade					
CUW308	Local Motorize Key Valves					
CUW311	Local Sunset Circulation Improvements					
CUW312	Local Lincoln Way Transmission Line					
CUW313	Local Noe Valley Transmission Main, Phase 2					
CUW315	Local East/West Transmission Main					
CUW316	Local Fulton @ Sixth Ave Main Replacement					
	<b>Total Pipelines/Valves</b>					
	<b>Water Supply/Water Quality</b>					
CUW301	Local Groundwater					
CUW302	Local Recycled Water					
CUW364	Local Lawrence-Livermore National Laboratory Water Quality Improvements					
	<b>Total Water Supply/Water Quality</b>					
	<b>Miscellaneous</b>					
CUW303	Local Vehicle Service Facility Upgrade					
CUW305	Local Fire Protection at CCD					
	<b>Total Miscellaneous</b>					
	<b>Total Local Program</b>					
	<b>Grand Total Regional and Local Programs</b>					
	<b>Unappropriated Interest Earnings</b>					
	<b>Percent of Net Proceeds<sup>4</sup></b>					
	<b>Percent of Net Proceeds and Earnings<sup>4</sup></b>					

ILLUSTRATION ONLY DRAFT

<sup>1</sup>Net financing proceeds available on date of issue (i.e. deposit to project fund)  
<sup>2</sup>Cumulative net of arbitrage rebate liability  
<sup>3</sup>Cumulative  
<sup>4</sup>If financing sources Substantially Expended, proceed allocations are then fixed

**REVENUE-FUNDED CAPITAL ADDITIONS (Section 5.04.B)**  
**Subfund: 5W CPF WCF - Wholesale Customer Capital Fund (Water)**

Projected FAMIS as of July 1, 2009 (Day 1 of New Budget Year)

Project Title	A FY 2009-10 Approved Budget - Total Regional	B FY 2009-10 Approved Budget - WHOLESALE SHARE	C Total Appropriation - All Years <sup>A</sup>	D All Years Actual Expenditures <sup>A</sup>	E Fiscal Year 2009-10 Actual Expenditures <sup>A</sup>	F Encumbered But Not Expended <sup>A</sup>	G=C-D-F Appropriated, Unencumbered Balance <sup>A</sup>	H Projected Expended & Encumbered through 6/30/2010	I=G-H Projected Surplus / (Shortfall)
CUW262 Regional Water RnR - Treatment Facilities	\$ 1,000,000	\$ 687,000	\$ 687,000	\$ -	\$ -	\$ -	\$ 687,000	\$ 229,000	\$ 458,000
CUW263 Regional Water RnR - Conveyance/Transmission Systems	\$ 7,000,000	\$ 4,809,000	\$ 4,809,000	\$ -	\$ -	\$ -	\$ 4,809,000	\$ 1,603,000	\$ 3,206,000
CUW264 Regional Water - Watersheds / ROW Management	\$ 500,000	\$ 343,500	\$ 343,500	\$ -	\$ -	\$ -	\$ 343,500	\$ 114,000	\$ 229,500
FUW100 Regional Water - Facilities Maintenance	\$ 3,700,000	\$ 2,541,900	\$ 2,541,900	\$ -	\$ -	\$ -	\$ 2,541,900	\$ 847,000	\$ 1,694,900
CUW261 Regional Water - Storage									
<b>Regional Total</b>	<b>\$ 12,200,000</b>	<b>\$ 8,381,400</b>	<b>\$ 8,381,400</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 8,381,400</b>	<b>\$ 2,793,000</b>	<b>\$ 5,588,400</b>

Source: \* SFPUC Commission Approved Budget, February 2009, Same Format  
 ^ FAMIS - City's Official Financial System of Record

Ties to Budget Hearing Materials

**REVENUE-FUNDED CAPITAL ADDITIONS (Section 5.04.B)**  
**Subfund: 5W CPF WCF - Wholesale Customer Capital Fund (Water)**

Projected FAMIS as of June 30, 2010 (Last Day of Budget Year)

Project Title	A FY 2009-10 Approved Budget - Total Regional	B FY 2009-10 Approved Budget - WHOLESALE SHARE	C Total Appropriation - All Years <sup>A</sup>	D All Years Actual Expenditures <sup>A</sup>	E Fiscal Year 2009-10 Actual Expenditures <sup>A</sup>	F Encumbered But Not Expended <sup>A</sup>	G=C-D-F Appropriated, Unencumbered Balance <sup>A</sup>	H Projected Expended & Encumbered through 6/30/2011	I=G-H Projected Surplus / (Shortfall)
CUW262 Regional Water RnR - Treatment Facilities	\$ 1,000,000	\$ 687,000	\$ 687,000	\$ 235,000	\$ 235,000	\$ -	\$ 452,000	\$ 409,000	\$ 43,000
CUW263 Regional Water RnR - Conveyance/Transmission Systems	\$ 7,000,000	\$ 4,809,000	\$ 4,809,000	\$ 1,395,000	\$ 1,395,000	\$ 25,000	\$ 3,389,000	\$ 1,589,000	\$ 1,800,000
CUW264 Regional Water - Watersheds / ROW Management	\$ 500,000	\$ 343,500	\$ 343,500	\$ 115,000	\$ 115,000	\$ 50,000	\$ 178,500	\$ 35,500	\$ 143,000
FUW100 Regional Water - Facilities Maintenance	\$ 3,700,000	\$ 2,541,900	\$ 2,541,900	\$ 850,000	\$ 850,000	\$ 123,000	\$ 1,568,900	\$ 768,900	\$ 800,000
CUW261 Regional Water - Storage									
<b>Regional Total</b>	<b>\$ 12,200,000</b>	<b>\$ 8,381,400</b>	<b>\$ 8,381,400</b>	<b>\$ 2,595,000</b>	<b>\$ 2,595,000</b>	<b>\$ 198,000</b>	<b>\$ 5,588,400</b>	<b>\$ 2,802,400</b>	<b>\$ 2,786,000</b>

Source: \* SFPUC Commission Approved Budget, February 2009, Same Format  
 ^ FAMIS - City's Official Financial System of Record

Ties to Budget Hearing Materials

Shown On Attachment N-2, Schedule 3  
 Revenue Capital - Actual Expenditures

Shown on Attachment N-2, Schedule 3  
 Continuing Appropriation  
 Needed for Multi-Year  
 Revenue Funded Capital

**REVENUE-FUNDED CAPITAL ADDITIONS (Section 5.04.B)**  
**Subfund: 5T CPF WCF - Wholesale Customer Capital Fund (Hetch Hetchy)**

Projected FAMIS as of July 1, 2009 (Day 1 of New Budget Year)

Project Title	A	B	C	D	E	F	G-C-D-F	H	I-G-H
CUH931 HH Microwave Replacement	\$ 4,000,000	J \$ 1,224,900	\$ 1,224,900	\$ -	\$ -	\$ -	\$ 1,224,900	\$ 408,000	\$ 816,900
CUH977 HH Water R&R - Facilities Maintenance	\$ 3,500,000	J \$ 1,071,788	\$ 1,071,788	\$ -	\$ -	\$ -	\$ 1,071,788	\$ 357,000	\$ 714,788
CUH947 SEA - Go Solar Incentive Project	\$ 4,000,000	P \$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
CUH971 Alternative Transmission Studies	\$ 1,000,000	P \$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
CUH976 HH Water R&R - Power Infrastructure	\$ 16,700,000	P \$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
CUH979 Hunters Point Municipal Power	\$ -	P \$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
CUH983 Civic Center Sustainability District	\$ 1,090,000	P \$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
CUH986 General Fund Dept - Energy Efficiency Renewable/Generation	\$ 7,365,158	P \$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Treasure Island Improvement Project	\$ 3,501,307	P \$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Enterprise Fund Dept - Energy Efficiency	\$ 325,722	P \$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
CUH975 HH Water R&R - Water Infrastructure	\$ 6,000,000	W \$ 4,083,000	\$ 4,083,000	\$ -	\$ -	\$ -	\$ -	\$ 1,361,000	\$ -
Toulumne River Watershed Protection	\$ 2,000,000	W \$ 1,361,000	\$ 1,361,000	\$ -	\$ -	\$ -	\$ -	\$ 454,000	\$ -
<b>Regional Total</b>	<b>\$ 52,182,187</b>	<b>\$ 7,740,688</b>	<b>\$ 7,740,688</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 2,296,688</b>	<b>\$ 2,580,000</b>	<b>\$ 1,531,688</b>

Source: \* SFPLUC Commission Approved Budget, February 2009, Same Format  
^ FAMIS - City's Official Financial System of Record

Ties to Budget Hearing Materials

**REVENUE-FUNDED CAPITAL ADDITIONS (Section 5.04.B)**  
**Subfund: 5T CPF WCF - Wholesale Customer Capital Fund (Hetch Hetchy)**

Projected FAMIS as of June 30, 2010 (Last Day of Budget Year)

Project Title	A	B	C	D	E	F	G-C-D-F	H	I-G-H
CUH931 HH Microwave Replacement	\$ 4,000,000	J \$ 1,224,900	\$ 1,224,900	\$ 1,224,900	\$ -	\$ -	\$ -	\$ -	\$ -
CUH977 HH Water R&R - Facilities Maintenance	\$ 3,500,000	J \$ 1,071,788	\$ 1,071,788	\$ 1,071,788	\$ -	\$ -	\$ (1)	\$ -	\$ -
CUH947 SEA - Go Solar Incentive Project	\$ 4,000,000	P \$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
CUH971 Alternative Transmission Studies	\$ 1,000,000	P \$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
CUH976 HH Water R&R - Power Infrastructure	\$ 16,700,000	P \$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
CUH979 Hunters Point Municipal Power	\$ -	P \$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
CUH983 Civic Center Sustainability District	\$ 1,090,000	P \$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
CUH986 General Fund Dept - Energy Efficiency Renewable/Generation	\$ 7,365,158	P \$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Treasure Island Improvement Project	\$ 3,501,307	P \$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Enterprise Fund Dept - Energy Efficiency	\$ 325,722	P \$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
CUH975 HH Water R&R - Water Infrastructure	\$ 6,000,000	W \$ 4,083,000	\$ 4,083,000	\$ 4,083,000	\$ -	\$ -	\$ -	\$ -	\$ -
Toulumne River Watershed Protection	\$ 2,000,000	W \$ 1,361,000	\$ 1,361,000	\$ 1,361,000	\$ -	\$ -	\$ -	\$ -	\$ -
<b>Regional Total</b>	<b>\$ 52,182,187</b>	<b>\$ 7,740,688</b>	<b>\$ 7,740,688</b>	<b>\$ 7,740,688</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ (1)</b>	<b>\$ (1)</b>	<b>\$ -</b>

Source: \* SFPLUC Commission Approved Budget, February 2009, Same Format  
^ FAMIS - City's Official Financial System of Record

Ties to Budget Hearing Materials

Show on Attachment N-2, Schedule 6

Shown On Attachment N-2, Schedule 6

Revenue Capital - Actual Expenditures

Revenue Funded Capital

Continuing Appropriation Needed for Multi-Year Revenue Funded Capital

## ATTACHMENT M-2

### REVENUE FUNDED CAPITAL ANNUAL REPORTING REQUIREMENTS (Section 5.04B)

#### Part A. Updated Actual Information Through Most Recent Fiscal Year (Due in November)

Each year, the SFPUC will provide a report on the status of the regional revenue funded projects with the following information:

Project-level information (through close-out)

- 1 Scope of project
- 2 Current cost estimate/budget.
- 3 Expected milestone dates (ie, design, environmental, construction period, close-out, etc.)
- 4 Contract status
- 5 Reasons for status changes from prior report.
- 6 Other information relevant to whether project is on time/on budget.
- 7 For most recently completed fiscal year and estimated for current year:
  - 8 Total expenditures (capital and operating); amounts paid from other sources.
  - 9 Amount of encumbered and unencumbered appropriations
  - 10 Application of any unused appropriations

Wholesale Capital Fund

- 11 Beginning balance, deposits, capital expenditures (by project), earnings, ending balance.
- 12 Components of ending balance; wholesale portion of:
  - 13 Appropriated and encumbered
  - 14 Appropriated but unencumbered

#### Part B. Proposed Appropriations for Upcoming Year (Due in March)

- 15 Project information, to the extent not provided in Part A
- 16 Expected funding needs for regional projects
- 17 Unused or excess appropriations carried over.
- 18 Proposed appropriation for upcoming fiscal year.

**ATTACHMENT M-3**  
**WHOLESALE REVENUE-FUNDED CAPITAL FUND - BALANCING ACCOUNT ADJUSTMENT**  
**\*\* EXAMPLE REPORTING FORMAT \*\***  
 (Section 6.08)

	(1)	(2)	(3)	(4)	(5)	(1)	(2)	(3)	(4)	(5)	(1)
	FY 2009-10	FY 2010-11	FY 2011-12	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20
a. Beginning balance	\$0	\$5,671,414	\$8,960,834	\$9,669,194	\$10,420,781	\$11,217,991	\$5,498,801	\$6,198,022	\$6,944,933	\$7,742,299	\$8,593,037
b. Transfer to Balancing Account	\$0					(\$6,467,533)					(\$2,574,995)
Year 1											
c. Budgeted appropriation	\$8,381,400					\$10,697,026					\$13,652,417
d. Encumbrance/Expenditure	(\$2,793,800)	(\$2,793,800)	(\$2,793,800)			(\$3,565,675)	(\$3,565,675)	(\$3,565,675)			(\$4,550,806)
Year 2											
e. Budgeted appropriation		\$8,800,470					\$11,231,878				
f. Encumbrance/Expenditure		(\$2,933,490)	(\$2,933,490)	(\$2,933,490)			(\$3,743,959)	(\$3,743,959)	(\$3,743,959)		
Year 3											
g. Budgeted appropriation		\$9,240,484						\$11,793,471			
h. Encumbrance/Expenditure		(\$3,080,165)	(\$3,080,165)	(\$3,080,165)				(\$3,931,157)	(\$3,931,157)	(\$3,931,157)	
Year 4											
i. Budgeted appropriation			\$9,702,518						\$12,383,145		
j. Encumbrance/Expenditure			(\$3,234,173)	(\$3,234,173)	(\$3,234,173)				(\$4,127,715)	(\$4,127,715)	(\$4,127,715)
Year 5											
k. Budgeted appropriation					\$10,187,644					\$13,002,302	
l. Encumbrance/Expenditure					(\$3,395,881)	(\$3,395,881)	(\$3,395,881)	(\$3,395,881)	(\$4,334,101)	(\$4,334,101)	(\$4,334,101)
m. Subtotal	\$5,587,600	\$8,744,594	\$9,393,873	\$10,123,885	\$10,898,206	\$5,251,755	\$6,025,163	\$6,750,702	\$7,525,246	\$8,351,628	\$8,657,838
n. Interest earnings (e.g., 3%)	\$83,814	\$216,240	\$275,321	\$296,896	\$319,785	\$247,046	\$172,859	\$194,231	\$217,053	\$241,409	\$228,763
o. Ending fund balance (unencumbered, unexpended)	\$5,671,414	\$8,960,834	\$9,669,194	\$10,420,781	\$11,217,991	\$5,498,801	\$6,198,022	\$6,944,933	\$7,742,299	\$8,593,037	\$8,886,601
p. Five Year Cumulative Appropriations w/ interest					\$47,504,581					\$60,180,421	
q. 10% of Cumulative Appropriations w/ interest					\$4,750,458					\$6,018,042	
r. Ending fund balance					\$11,217,991					\$8,593,037	
s. Excess balance transferred to Balancing Account*					(\$6,467,533)					(\$2,574,995)	

\*Test: Any balance in excess of 10% of the cumulative five-year appropriation total is credited to the balancing account.

**BALANCING ACCOUNT / RATE SETTING CALCULATION**  
**REFERENCE SECTION 6.03.A.3.a**

FY 2007-08      FY 2008-09      FY 2009-10

- Step 1:
- A. Balancing Account as of June 30, 2007
  - B. Interest on Balancing Account at Pooled Investment Rate for Fiscal Year
  - C. Wholesale Revenues for Fiscal Year
  - D. Wholesale Revenue Requirement for Fiscal Year
  - E. Settlement Credits or Other Adjustments
  - F. 1984 Agreement Balancing Account Credits
  - G. Balancing Account as of June 30, 2008

\$12,882,000  
 \$554,000  
 (\$113,932,000)  
 \$119,224,000  
 \$2,448,614  
 \$0  
 \$21,176,614

- Step 2:
- A. Balancing Account as of June 30, 2008
  - B. Interest on Balancing Account at Pooled Investment Rate for Fiscal Year
  - C. Wholesale Revenues for Fiscal Year
  - D. Wholesale Revenue Requirement for Fiscal Year
  - E. Settlement Credits or Other Adjustments
  - F. 1984 Agreement Balancing Account Credits
  - G. Balancing Account as of June 30, 2009

\$21,176,614  
 \$529,000  
 -\$123,604,000  
 \$120,562,000  
 \$21,000  
 \$0  
 \$18,684,614

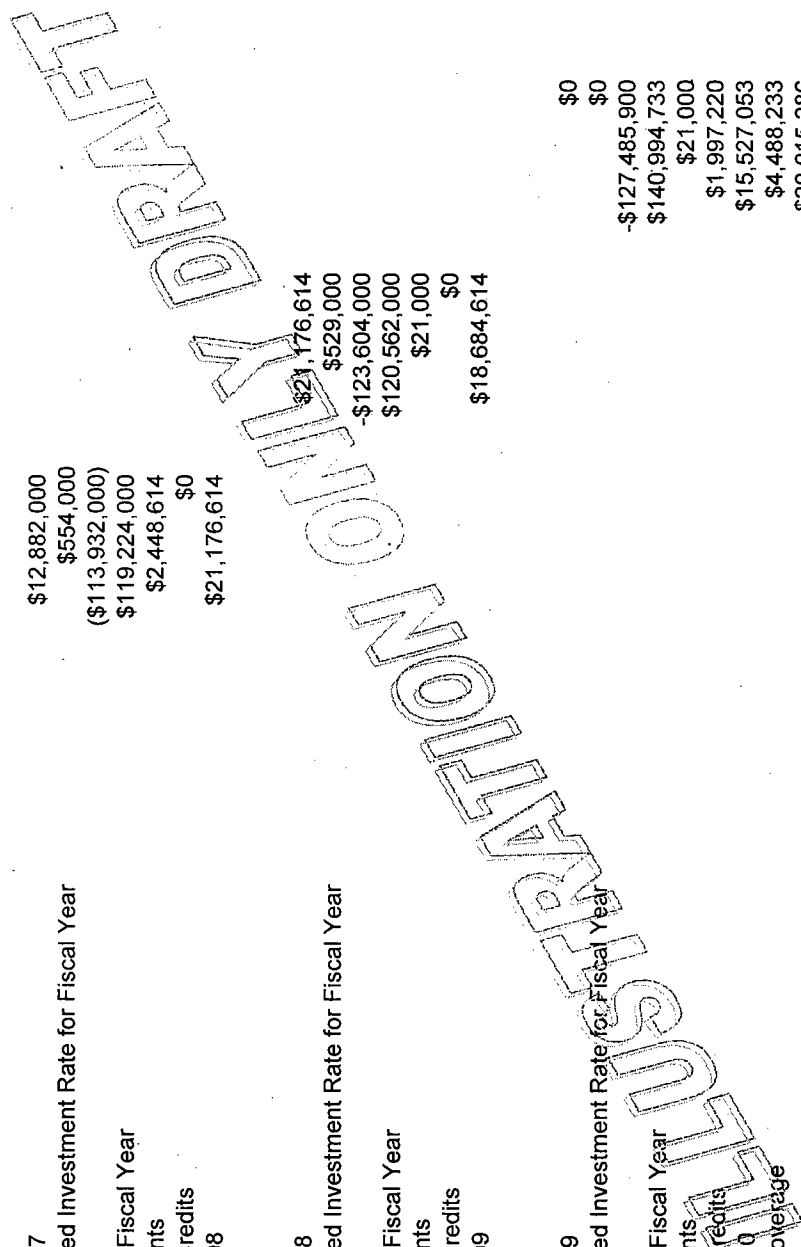
- Step 3:
- A. Balancing Account as of June 30, 2009
  - B. Interest on Balancing Account at Pooled Investment Rate for Fiscal Year
  - C. Wholesale Revenues for Fiscal Year
  - D. Wholesale Revenue Requirement for Fiscal Year
  - E. Settlement Credits or Other Adjustments
  - F. 1984 Agreement Balancing Account Credits
  - G. Balancing Account as of June 30, 2010
  - H. Net Change in Wholesale Revenue Coverage
  - I. Total Revenue Deficiency or Surplus

\$0  
 \$0  
 -\$127,485,900  
 \$140,994,733  
 \$21,000  
 \$1,997,220  
 \$15,527,053  
 \$4,488,233  
 \$20,015,286

- J. Projected Water Sales in Ccf
- K. Deficiency or (Surplus) \$(/Ccf
- L. Deficiency or (Surplus) Ccf as a Percentage of Revenues

84,621,240      83,205,600      85,920,000  
 \$0.23  
 15.7%

Note: Dollar amounts are for illustrative purposes only. The Parties have not agreed on the amount of the balancing account as of June 30, 2007, revenue requirement for FY 2007-08, settlement credits for FY 2007-08, and the amount of the balancing account as of June 30, 2009.



**BALANCING ACCOUNT / RATE SETTING CALCULATION  
METHOD OF CALCULATION  
REFERENCE SECTION 6.03.A.3.a**

N = The year for which rates are being set

N-1 = The current year

N-2 = The most recently completed year for which actual results are available

**Calculation Method:**

**Step 1**

Determine the actual revenue differential for year N-2

- A. Enter the beginning amount of the Balancing Account
- B. Calculate the interest earned at the Pooled Investment Account Rate for (A)
- C. Enter the actual Wholesale revenues billed
- D. Enter the Wholesale Revenue Requirement
- E. Enter settlement credits or adjustments, if any
- F. Enter carry-over 1984 Agreement credits owed the City, if any
- G. Calculate the ending amount of the Balancing Account

**Step 2**

Determine the projected revenue differential for year N-1

- A. Enter the beginning amount of the Balancing Account; this is the same amount as G in Step 1
- B. Calculate the interest earned at the Pooled Investment Account Rate for (A)
- C. Enter the actual Wholesale revenues billed
- D. Enter the Wholesale Revenue Requirement
- E. Enter settlement credits or adjustments, if any
- F. Enter carry-over 1984 Agreement credits owed the City, if any
- G. Calculate the ending amount of the Balancing Account

**Step 3**

Determine the projected revenue differential for year N

- A. Enter the beginning amount of the Balancing Account; this is the same amount as G in Step 2
- B. Calculate the interest earned at the Pooled Investment Account Rate for (A)
- C. Enter the actual Wholesale revenues billed
- D. Enter the Wholesale Revenue Requirement
- E. Enter settlement credits or adjustments, if any
- F. Enter carry-over 1984 Agreement credits owed the City, if any
- G. Calculate the ending amount of the Balancing Account
- H. Enter the net change in the Wholesale Revenue Coverage, if applicable
- I. Calculate the total revenue deficiency or surplus (G) + (H)
- J. Enter the projected water sales to Wholesale Customers in Ccf
- K. Calculate the required increase in the commodity portion of the rate by dividing (I) by (J)
- L. Calculate the required increase in revenues by dividing (I) by (C)



WHOLESALE REVENUE REQUIREMENT SCHEDULES  
 CALCULATION OF WHOLESALE REVENUE REQUIREMENT  
 FISCAL YEAR 2009-10  
 REFERENCE ARTICLE 5

ATTACHMENT N-2  
 SCHEDULE 1

EXPENSE CATEGORY	CONTRACT REFERENCE	SCHEDULE REFERENCE	TOTAL	DIRECT RETAIL	DIRECT WHOLESALE	REGIONAL	JOINT EXPENSE ALLOCATION FACTOR	WHOLESALE SHARE
<b>OPERATING AND MAINTENANCE EXPENSE:</b>								
SOURCE OF SUPPLY	5.05 (A)	SCH 8.1	\$ 14,943,953	\$ 1,251,062	\$ -	\$ 13,692,891	ANNUAL USE <sup>1</sup>	\$ 9,364,568
PUMPING	5.05 (B)	SCH 8.1	\$ 4,342,682	\$ 3,854,000	\$ -	\$ 488,682	ANNUAL USE <sup>1</sup>	\$ 334,210
TREATMENT	5.05 (C)	SCH 8.1	\$ 30,445,053	\$ -	\$ -	\$ 30,445,053	ANNUAL USE <sup>1</sup>	\$ 20,821,372
TRANSMISSION & DISTRIBUTION	5.05 (D)	SCH 8.1	\$ 53,416,232	\$ 30,163,286	\$ -	\$ 23,252,946	ANNUAL USE <sup>1</sup>	\$ 15,902,690
CUSTOMER ACCOUNTS <sup>2</sup>	5.05 (E)	SCH 8.1	\$ 7,552,213	\$ 7,401,169	\$ 151,044	\$ -	2%	\$ 151,044
<b>TOTAL O&amp;M</b>			<b>\$ 110,700,133</b>	<b>\$ 42,669,517</b>	<b>\$ 151,044</b>	<b>\$ 67,879,572</b>		<b>\$ 46,573,883</b>
COMPOSITE % (WHOLESALE SHARE / TOTAL O&M)	5.06 (C)							42.07%
<b>ADMINISTRATIVE AND GENERAL EXPENSES:</b>								
ADMINISTRATIVE AND GENERAL EXPENSES:								
COWCAP	5.06 (A)	SCH 8.1	\$ 1,238,009	\$ -	\$ -	\$ 1,238,009	COMPOSITE O&M	\$ 520,857
SERVICES OF SFPUC BUREAUS	5.06 (B)	SCH 7	\$ 22,465,291	\$ 8,178,424	\$ -	\$ 14,286,867	ANNUAL USE <sup>1</sup>	\$ 9,770,788
OTHER A&G	5.06 (C)	SCH 8.1	\$ 12,973,477	\$ 4,059,891	\$ -	\$ 8,962,586	COMPOSITE O&M	\$ 3,770,749
COMPLIANCE AUDIT	5.06 (D)	SCH 8.1	\$ 200,000	\$ -	\$ -	\$ 200,000	50%	\$ 100,000
<b>TOTAL A&amp;G</b>			<b>\$ 36,875,777</b>	<b>\$ 12,188,315</b>	<b>\$ -</b>	<b>\$ 24,687,462</b>		<b>\$ 14,162,394</b>
PROPERTY TAXES	5.07	SCH 8.1	\$ 1,417,293	\$ -	\$ -	\$ 1,417,293	ANNUAL USE <sup>1</sup>	\$ 969,287
CAPITAL COST RECOVERY								
PRE-2009 ASSETS	5.03	ATT K						\$ 24,051,326
DEBT SERVICE ON NEW ASSETS	5.04 (A)	SCH 2						\$ 17,952,931
REVENUE FUNDED ASSETS - APPROPRIATED TO WHOLESALE CAPITAL FUND	5.04 (B)	SCH 3						\$ 8,381,400
<b>TOTAL CAPITAL COST RECOVERY</b>								<b>\$ 50,385,657</b>
WHOLESALE SHARE HETCH HETCHY WATER & POWER	5.04	SCH 4						\$ 28,903,512
WHOLESALE REVENUE REQUIREMENT								\$ 140,994,733
WHOLESALE REVENUE COVERAGE <sup>3</sup>								\$ 4,488,233

<sup>1</sup>Proportional Annual Use (68.39%)  
<sup>2</sup>Water Enterprise Share of Customer Accounts Expenses (62% of Total Customer Accounts Expenses)  
<sup>3</sup>25% of Wholesale Share of Debt Service

ATTACHMENT N-2  
SCHEDULE 2

WHOLESALE REVENUE REQUIREMENT SCHEDULES  
WATER ENTERPRISE CAPITAL COST RECOVERY - ANNUAL DEBT SERVICE  
FISCAL YEAR 2009-10  
REFERENCE SECTION 5.04.A

	2006 BOND		2008 BOND		2009 BOND		XXXX BOND		XXXX BOND		XXXX BOND		TOTAL ALL	
	ISSUE SERIES	ISSUE ALL	ISSUE SERIES	ISSUE ALL	ISSUE SERIES	ISSUE ALL	ISSUE SERIES	ISSUE ALL	ISSUE SERIES	ISSUE ALL	ISSUE SERIES	ISSUE ALL	ISSUE SERIES	OUTSTANDING BONDS
USE OF BOND PROCEEDS														
RETAIL PROJECTS		31.61%		22.95%		19.42%		XX.XX%		XX.XX%		XX.XX%		
REGIONAL PROJECTS		68.39%		77.05%		80.58%		YY.YY%		YY.YY%		YY.YY%		
PRINCIPAL PAYMENT	\$ 8,765,000													\$ 8,765,000
RETAIL PROJECTS	\$ 2,770,617													\$ 2,770,617
REGIONAL PROJECTS	\$ 5,994,384													\$ 5,994,384
INTEREST PAYMENT (GROSS)	\$ 23,353,388	\$ 5,561,386	\$ 56,181,932											\$ 85,096,706
RETAIL PROJECTS	\$ 7,382,006	\$ 1,276,338	\$ 10,910,531											\$ 19,568,875
REGIONAL PROJECTS	\$ 15,971,382	\$ 4,285,048	\$ 45,271,401											\$ 65,527,831
INTEREST PAYMENT (CAPITALIZED)														
RETAIL PROJECTS														
REGIONAL PROJECTS														
INTEREST PAYMENT (NET)	\$ 23,353,388	\$ 5,561,386												
RETAIL PROJECTS	\$ 7,382,006	\$ 1,276,338												
REGIONAL PROJECTS	\$ 15,971,382	\$ 4,285,048												
TOTAL PRINCIPAL AND INTEREST PAYMENT	\$ 32,133,880	\$ 5,561,386												\$ 37,679,774
RETAIL PROJECTS	\$ 10,152,622	\$ 1,276,338												\$ 11,428,961
REGIONAL PROJECTS	\$ 21,981,258	\$ 4,285,048												\$ 26,250,813
PROPORTIONAL ANNUAL USE		68.39%		68.39%		68.39%		ZZ.ZZ%		ZZ.ZZ%		ZZ.ZZ%		
WHOLESALE SHARE	\$ 15,022,387	\$ 2,930,544												\$ 17,952,931

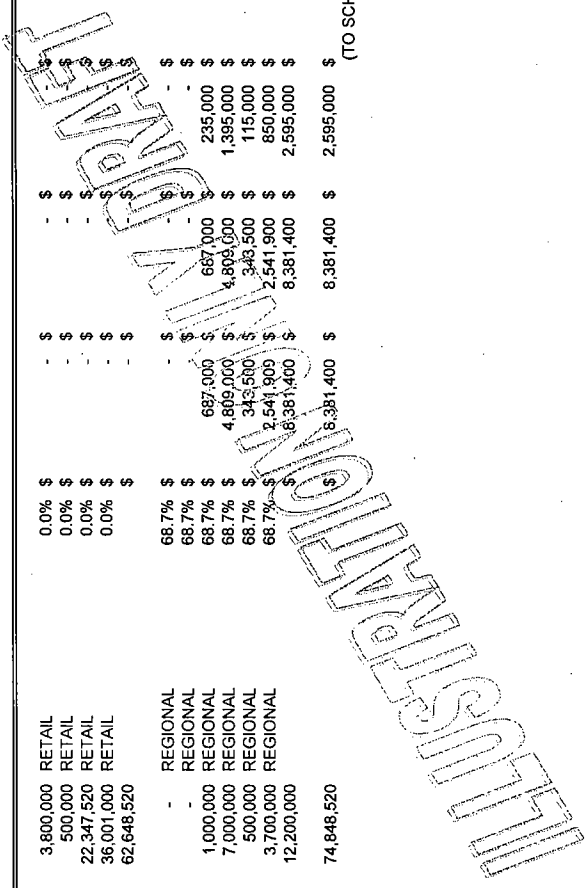
Note: Allocation of bond proceeds shown are for illustrative purposes only. Regional projects will not include bond proceeds used to construct or acquire assets capitalized prior to 7/1/09. Regional projects also will not include in-city groundwater or in-city recycled water projects.

(TO SCHEDULE 1)

WHOLESALE REVENUE REQUIREMENT SCHEDULES  
 WATER ENTERPRISE CAPITAL COST RECOVERY - REVENUE FUNDED CAPITAL PROJECTS  
 FISCAL YEAR 2009-10  
 REFERENCE SECTION 5.04.B

ATTACHMENT N-2  
 SCHEDULE 3

PROJECT APPROPRIATION	CLASSIFICATION	ALLOCATION FACTOR	WHOLESALE SHARE	TOTAL APPROPRIATION ALL YEARS	ALL YEARS ACTUAL EXPENDITURES	FY 2009-10 ACTUAL EXPENDITURES	ENCUMBERED, NOT EXPENDED	APPROPRIATED, UNENCUMBERED BALANCE
CUH980	Treasure Island Improvement Project							
CUW253	Facilities Security	0.0%	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
CUW260	Local Water R&R	0.0%	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
CUW686	Automated Meter Reading System	0.0%	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Total Local		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
CUW202	Replace Prestressed Concrete Cylr Pipe	68.7%	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
CUW261	Regional Water R&R - Storage	68.7%	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
CUW262	Regional Water R&R - Treatment Facilities	68.7%	\$ 687,000	\$ 687,000	\$ 235,000	\$ -	\$ -	\$ 452,000
CUW263	Regional Water R&R Conveyance/Transmission	68.7%	\$ 4,809,000	\$ 4,809,000	\$ 1,395,000	\$ 25,000	\$ 3,389,000	\$ -
CUW264	Regional Watersheds/ROW Management	68.7%	\$ 343,500	\$ 343,500	\$ 115,000	\$ 50,000	\$ 178,500	\$ -
FUW100	Regional Facilities Maintenance	68.7%	\$ 2,541,900	\$ 2,541,900	\$ 850,000	\$ 123,000	\$ 1,568,900	\$ -
	Total Regional		\$ 8,381,400	\$ 8,381,400	\$ 2,595,000	\$ 198,000	\$ 5,588,400	\$ -
	TOTAL ALL PROJECTS		\$ 8,381,400	\$ 8,381,400	\$ 2,595,000	\$ 198,000	\$ 5,588,400	\$ -



WHOLESALE REVENUE REQUIREMENT SCHEDULES  
 CALCULATION OF WHOLESale SHARE OF HETCH HETCHY WATER & POWER  
 FISCAL YEAR 2009-10  
 REFERENCE ARTICLE 5

ATTACHMENT N-2  
 SCHEDULE 4

EXPENSE CATEGORY	CONTRACT REFERENCE	SCHEDULE REFERENCE	TOTAL	POWER SPECIFIC	WATER SPECIFIC	JOINT	JOINT ALLOCATION PERCENTAGE	WATER-RELATED TOTAL	WHOLESale ALLOCATION FACTOR	WHOLESale SHARE
OPERATION AND MAINTENANCE										
OPERATION	5.08 B 1	SCH 8.2	\$ 44,612,220	\$ 31,853,965	\$ 9,557,861	\$ 3,200,384	45%	\$ 10,988,038		\$ 7,484,165
MAINTENANCE	5.08 B 1	SCH 8.2	\$ 16,868,612	\$ 5,048,039	\$ 3,238,622	\$ 8,581,951	45%	\$ 7,100,500		\$ 4,631,990
TOTAL OPERATION AND MAINTENANCE			\$ 61,480,832	\$ 36,902,004	\$ 12,796,483	\$ 11,782,345		\$ 18,088,538		\$ 12,316,055
ADMINISTRATIVE AND GENERAL										
COWCAP	5.08 B 2	SCH 8.2	\$ 1,139,579	\$ -	\$ -	\$ 1,139,579	45%	\$ 512,811		\$ 348,968
SERVICES OF SFPUC BUREAUS	5.08 B 2	SCH 7	\$ 8,255,307	\$ 5,375,656	\$ 2,879,651	\$ -	45%	\$ 2,879,651		\$ 1,959,603
OTHER A&G	5.08 B 2	SCH 8.2	\$ 25,581,481	\$ 14,913,071	\$ 36,070	\$ 10,632,340	45%	\$ 4,820,623		\$ 3,280,434
CUSTOMER ACCOUNTS	5.08 B 2	SCH 8.2	\$ 347,403	\$ 347,403	\$ -	\$ -	45%	\$ -		\$ -
TOTAL ADMINISTRATIVE AND GENERAL			\$ 35,323,770	\$ 20,686,130	\$ 2,916,721	\$ 11,771,919		\$ 8,213,085		\$ 5,589,004
PROPERTY TAXES	5.08 B 3	SCH 8.2	\$ 452,000	\$ -	\$ -	\$ 456,305	45%	\$ 205,337		\$ 139,732
CAPITAL COST RECOVERY										
PRE-2009 ASSETS	5.09 B 1	ATT K-4								\$ 3,118,033
DEBT SERVICE ON NEW ASSETS	5.09 B 2	SCH 5								\$ -
REVENUE FUNDED ASSETS-APPROPRIATIONS TO WHOLESale CAPITAL FUND	5.09 B 3	SCH 6								\$ 7,740,688
TOTAL CAPITAL COST RECOVERY										\$ 10,858,721
WHOLESale SHARE OF HETCH HETCHY WATER & POWER										\$ 28,903,512
WHOLESale REVENUE COVERAGE <sup>1</sup>										(TO SCHEDULE 1)
										\$ -

<sup>1</sup>Adjusted Proportional Annual Use (68.39% X 99.50% = 68.05%)  
 \*25% of Wholesale Share of Debt Service

ATTACHMENT N-2  
SCHEDULE 5

WHOLESALE REVENUE REQUIREMENT SCHEDULES  
HETCH HETCHY CAPITAL COST RECOVERY - ANNUAL DEBT SERVICE  
FISCAL YEAR 2009-10  
REFERENCE SECTION 5.09.B.1

	XXXX BOND ISSUE ALL SERIES	XXXX BOND ISSUE ALL SERIES	XXXX BOND ISSUE ALL SERIES	XXXX BOND ISSUE ALL SERIES	XXXX BOND ISSUE ALL SERIES	XXXX BOND ISSUE ALL SERIES	XXXX BOND ISSUE ALL SERIES	XXXX BOND ISSUE ALL SERIES	TOTAL ALL OUTSTANDIN G BONDS
USE OF BOND PROCEEDS									
POWER PROJECTS	XX.XX%	XX.XX%	XX.XX%	XX.XX%	XX.XX%	XX.XX%	XX.XX%	XX.XX%	
WATER PROJECTS	YY.YY%	YY.YY%	YY.YY%	YY.YY%	YY.YY%	YY.YY%	YY.YY%	YY.YY%	
JOINT PROJECTS	ZZ.ZZ%	ZZ.ZZ%	ZZ.ZZ%	ZZ.ZZ%	ZZ.ZZ%	ZZ.ZZ%	ZZ.ZZ%	ZZ.ZZ%	
PRINCIPAL PAYMENT	-	-	-	-	-	-	-	-	
POWER SHARE	-	-	-	-	-	-	-	-	
WATER SHARE	-	-	-	-	-	-	-	-	
JOINT SHARE	-	-	-	-	-	-	-	-	
INTEREST PAYMENT (NET)	-	-	-	-	-	-	-	-	
POWER SHARE	-	-	-	-	-	-	-	-	
WATER SHARE	-	-	-	-	-	-	-	-	
JOINT SHARE	-	-	-	-	-	-	-	-	
TOTAL PRINCIPAL AND INTEREST PAYMENT	-	-	-	-	-	-	-	-	
POWER SHARE	-	-	-	-	-	-	-	-	
WATER SHARE	-	-	-	-	-	-	-	-	
JOINT SHARE	-	-	-	-	-	-	-	-	
WATER RELATED PRINCIPAL AND INTEREST PAYMENT <sup>1</sup>	68.05%	68.05%	68.05%	68.05%	68.05%	68.05%	68.05%	68.05%	
ADJUSTED PROPORTIONAL ANNUAL USE WHOLESALE SHARE									

<sup>1</sup>Water Related = 100% of Water Share + 45% of Joint Share

(TO SCHEDULE 4)

WHOLESALE REVENUE REQUIREMENT SCHEDULES  
 HETCH HETCHY CAPITAL COST RECOVERY - REVENUE FUNDED CAPITAL PROJECTS  
 FISCAL YEAR 2009-10  
 REFERENCE SECTION 5.04.B

ATTACHMENT N-2  
 SCHEDULE 6

PROJECT APPROPRIATION	CLASSIFICATION	WATER RELATED PERCENTAGE	WATER RELATED SHARE	ALLOCATION FACTOR	WHOLESALE SHARE	TOTAL APPROPRIATION ALL YEARS	ALL YEARS ACTUAL EXPENDITURES	FY 2009-10 ACTUAL EXPENDITURES	ENCLUMBERED, NOT EXPENDED	APPROPRIATED, UNENCUMBERED BALANCE
CUH931	HH Microwave Replacement	45%	\$ 1,800,000	ADJUSTED PROPORTIONAL ANNUAL USE	\$ 1,224,900	\$ 1,224,900	\$ 1,224,900	\$ 1,224,900	\$ -	\$ -
CUH977	HH Water R&R - Facilities Maintenance	45%	\$ 1,575,000	ADJUSTED PROPORTIONAL ANNUAL USE	\$ 1,071,768	\$ 1,071,768	\$ 1,071,768	\$ 1,071,768	\$ -	\$ -
	Total Joint		\$ 3,375,000	ADJUSTED PROPORTIONAL ANNUAL USE	\$ 2,296,668	\$ 2,296,668	\$ 2,296,668	\$ 2,296,668	\$ -	\$ -
CUH947	SEA - Go Solar Incentive Project	0%	\$ -	ADJUSTED PROPORTIONAL ANNUAL USE	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
CUH971	Alternative Transmission Studies	0%	\$ -	ADJUSTED PROPORTIONAL ANNUAL USE	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
CUH976	HH Water R&R - Power Infrastructure	0%	\$ -	ADJUSTED PROPORTIONAL ANNUAL USE	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
CUH979	Hunters Point Municipal Power	0%	\$ -	ADJUSTED PROPORTIONAL ANNUAL USE	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
CUH983	Civic Center Sustainability District	0%	\$ -	ADJUSTED PROPORTIONAL ANNUAL USE	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
CUH986	General Fund Dept - Energy Efficiency Renewable/Generation	0%	\$ -	ADJUSTED PROPORTIONAL ANNUAL USE	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Treasure Island Improvement Project	0%	\$ -	ADJUSTED PROPORTIONAL ANNUAL USE	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Enterprise Fund Dept - Energy Efficiency	0%	\$ -	ADJUSTED PROPORTIONAL ANNUAL USE	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Total Power	0%	\$ -	ADJUSTED PROPORTIONAL ANNUAL USE	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
CUH975	HH Water R&R - Water Infrastructure	100%	\$ 6,000,000	ADJUSTED PROPORTIONAL ANNUAL USE	\$ 4,083,000	\$ 4,083,000	\$ 4,083,000	\$ 4,083,000	\$ -	\$ -
	Toulumne River Watershed Protection	100%	\$ 2,000,000	ADJUSTED PROPORTIONAL ANNUAL USE	\$ 1,361,000	\$ 1,361,000	\$ 1,361,000	\$ 1,361,000	\$ -	\$ -
	Total Water	100%	\$ 8,000,000	ADJUSTED PROPORTIONAL ANNUAL USE	\$ 5,444,000	\$ 5,444,000	\$ 5,444,000	\$ 5,444,000	\$ -	\$ -
	TOTAL ALL WATER RELATED PROJECTS		\$ 11,375,000		\$ 7,740,688	\$ 7,740,688	\$ 7,740,688	\$ 7,740,688	\$ -	\$ -

WHOLESALE REVENUE REQUIREMENT SCHEDULES  
 SERVICES OF SFPUC BUREAUS - ALLOCATION TO ENTERPRISES  
 FISCAL YEAR 2009-10  
 REFERENCE SECTION 5.05.B

ATTACHMENT N-2  
 SCHEDULE 7

	EXPENDITURE S	ADJUSTMENTS	ADJUSTED EXPENDITURE S	HETCH HETCHY POWER	HETCH HETCHY WATER	WATER RETAIL	WATER REGIONAL	WASTEWATER	TOTAL
				11.13%	5.96%	16.94%	29.59%	36.37%	
ALLOCATION FACTORS (SCHEDULE N-7.1)									
PUC01 General Manager	\$ 7,609,114	\$ -	\$ 7,609,114	\$ 847,180	\$ 453,820	\$ 1,288,984	\$ 2,251,548	\$ 2,767,682	\$ 7,609,114
PUC1101 Biz-Serv-Administration	\$ 4,081,981	\$ -	\$ 4,081,981	\$ 454,478	\$ 243,456	\$ 691,434	\$ 1,207,864	\$ 1,484,749	\$ 4,081,981
PUC1102 Finance	\$ 8,817,687	\$ -	\$ 8,817,687	\$ 981,739	\$ 525,902	\$ 1,493,600	\$ 2,609,166	\$ 3,207,280	\$ 8,817,687
PUC1103 ITS <sup>1</sup>	\$ 18,048,158	\$ (1,835,357)	\$ 16,212,801	\$ 1,805,093	\$ 966,959	\$ 2,745,235	\$ 4,797,391	\$ 5,897,123	\$ 16,212,801
PUC1106 Human Resources	\$ 7,678,483	\$ -	\$ 7,678,483	\$ 854,903	\$ 457,958	\$ 1,300,634	\$ 2,272,074	\$ 2,792,914	\$ 7,678,483
PUC1108 Customer Services	\$ 12,262,428	\$ (12,262,428)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
PUC12 External Affairs	\$ 3,882,455	\$ -	\$ 3,882,455	\$ 432,263	\$ 231,556	\$ 657,637	\$ 1,148,824	\$ 1,412,175	\$ 3,882,455
TOTAL	\$ 34,752,000	\$ (12,731,000)	\$ 48,282,521	\$ 5,375,656 (TO SCHEDULE 4)	\$ 2,879,651 (TO SCHEDULE 4)	\$ 8,178,424 (TO SCHEDULE 1)	\$ 14,286,867 (TO SCHEDULE 1)	\$ 17,561,923 (TO SCHEDULE 1)	\$ 48,282,521

<sup>1</sup>Adjustment for Transfer of SCADA Expenditures to T&D Joint (\$1,730,000)

WHOLESALE REVENUE REQUIREMENT SCHEDULES  
 SERVICES OF SFPUC BUREAUS - ANNUAL SALARIES  
 FISCAL YEAR 2009-10  
 REFERENCE SECTION 5.05.B

ATTACHMENT N-2  
 SCHEDULE 7.1

DEPARTMENT/DIVISION	ALLOCATION FACTOR	GROUP CODE	SALARIES	PERCENTAGE
<b>HETCH HETCHY</b>				
POWER		1	\$ 6,677,939	6.27%
WATER		2	\$ 1,775,910	1.67%
JOINT			\$ 9,428,450	
WATER SHARE	45%	2	\$ 4,242,803	3.98%
POWER SHARE	55%	1	\$ 5,185,648	4.87%
<b>WATER</b>				
ADMINISTRATION (WTR01)			\$ 1,009,246	
RETAIL SHARE	33.4%	3	\$ 336,415	0.32%
REGIONAL SHARE	33.3%	4	\$ 336,415	0.32%
HETCH HETCHY WATER SHARE	33.3%	2	\$ 336,416	0.32%
CDD (WTR03)		3	\$ 17,356,922	16.29%
WATER QUALITY (WTR04)		4	\$ 7,282,589	6.83%
WATER SUPPLY & TREATMENT (WTR05)		4	\$ 18,154,689	17.05%
NATURAL RESOURCES (WTR06)		4	\$ 4,682,073	4.39%
WATER RESOURCE PLANNING			\$ 1,419,760	
WATER CONSERVATION		3	\$ 355,703	0.33%
RETAIL WATER RESOURCE PLANNING		3	\$ -	
REGIONAL SHARE (NET SALARIES)		4	\$ 1,064,057	1.00%
WASTEWATER		5	\$ 38,757,578	36.37%
<b>SALARIES BY GROUP CODE</b>				
HETCH HETCHY - POWER		1	\$ 11,863,587	11.13% (TO SCHEDULE 7)
HETCH HETCHY - WATER		2	\$ 6,355,129	5.96% (TO SCHEDULE 7)
WATER - RETAIL		3	\$ 18,049,040	16.94% (TO SCHEDULE 7)
WATER- REGIONAL		4	\$ 31,529,823	29.59% (TO SCHEDULE 7)
WASTEWATER		5	\$ 38,757,578	36.37% (TO SCHEDULE 7)
TOTAL SALARIES			\$ 106,555,156	100.00%



**WHOLESALE REVENUE REQUIREMENT SCHEDULES  
 CALCULATION OF THE WHOLESALE REVENUE REQUIREMENT  
 FISCAL YEAR 2009-10  
 WATER ENTERPRISE SUMMARY OF OPERATING EXPENSES**

**ATTACHMENT N-2  
 SCHEDULE 8.1**

	Retail	Wholesale	Regional	Total
<b>Operating Expenses</b>				
Transmission & Distributions	\$ 30,163,286	\$ -	\$ 23,252,946	\$ 53,416,232
Adjustments to Transmission & Distribution	\$ -	\$ -	\$ -	\$ -
Adjusted Transmission & Distribution	\$ 30,163,286	\$ -	\$ 23,252,946	\$ 53,416,232
Source of Supply	\$ 1,251,062	\$ -	\$ 13,692,891	\$ 14,943,953
Adjustments to Source of Supply	\$ -	\$ -	\$ -	\$ -
Adjusted Source of Supply	\$ 1,251,062	\$ -	\$ 13,692,891	\$ 14,943,953
Pumping	\$ 3,854,000	\$ -	\$ 488,682	\$ 4,342,682
Adjustments to Pumping	\$ -	\$ -	\$ -	\$ -
Adjusted Pumping	\$ 3,854,000	\$ -	\$ 488,682	\$ 4,342,682
Treatment	\$ -	\$ -	\$ 30,445,053	\$ 30,445,053
Adjustments to Treatment	\$ -	\$ -	\$ -	\$ -
Adjusted Treatment	\$ -	\$ -	\$ 30,445,053	\$ 30,445,053
Customer Accounts	\$ 7,401,169	\$ 151,044	\$ -	\$ 7,552,213
Adjustments to Customer Accounts	\$ -	\$ -	\$ -	\$ -
Adjusted Customer Accounts	\$ 7,401,169	\$ 151,044	\$ -	\$ 7,552,213
<b>Total Adjusted Operating Expense</b>	\$ 42,669,517	\$ 151,044	\$ 67,879,572	\$ 110,700,133
<b>General &amp; Administrative Expense</b>				
COWCAP	\$ -	\$ -	\$ 1,238,009	\$ 1,238,009
Services of SFPUC Bureaus	\$ 8,178,424	\$ -	\$ 14,286,867	\$ 22,465,291
Other General & Administrative	\$ 4,009,891	\$ -	\$ 8,962,586	\$ 12,972,477
Adjustments to General & Administrative	\$ -	\$ -	\$ -	\$ -
Adjusted General & Administrative	\$ 4,009,891	\$ -	\$ 8,962,586	\$ 12,972,477
Compliance Audit	\$ 100,000	\$ 100,000	\$ -	\$ 200,000
<b>Total General &amp; Administrative</b>	\$ 12,288,315	\$ 100,000	\$ 24,487,462	\$ 36,875,777
<b>Property Taxes</b>	\$ -	\$ -	\$ 1,417,293	\$ 1,417,293
<b>Total</b>	\$ 54,957,832	\$ 251,044	\$ 93,784,327	\$ 148,993,203

Source: FAMIS/EIS

Note: All adjustments to be separately identified above

**WHOLESALE REVENUE REQUIREMENT SCHEDULES  
 CALCULATION OF THE WHOLESALE REVENUE REQUIREMENT  
 FISCAL YEAR 2009-10  
 HETCHY HETCHY WATER & POWER SUMMARY OF OPERATING EXPENSES**

**ATTACHMENT N-2  
 SCHEDULE 8.2**

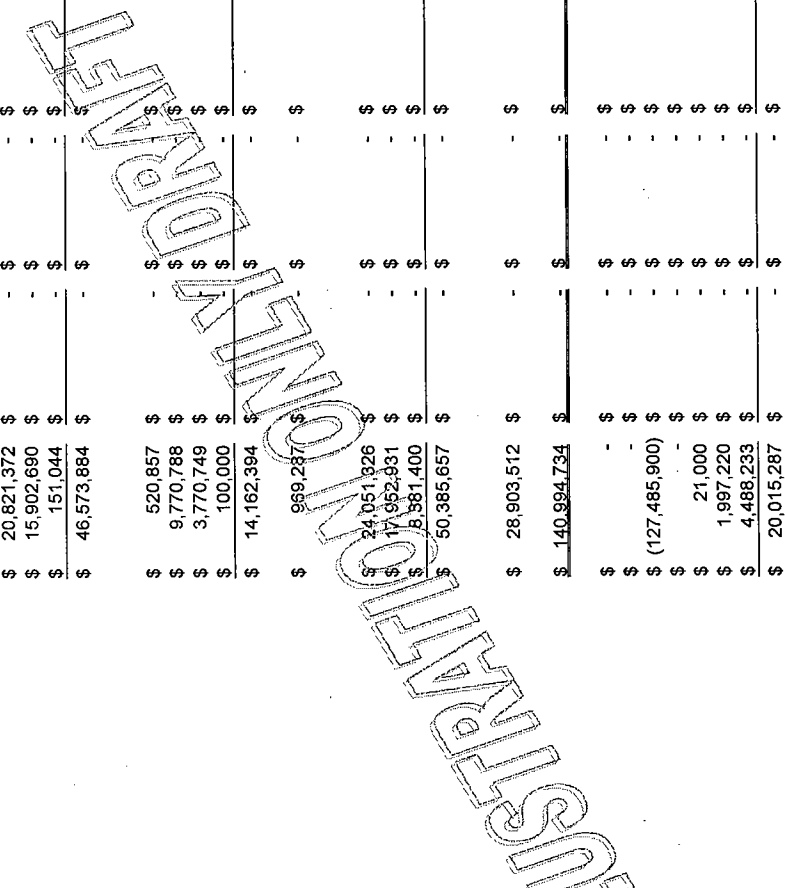
	Power	Water	Joint	Total
<b>Operating Expenses</b>				
Purchased Power & Wheeling	\$ 28,953,676			\$ 28,953,676
Adjustments to Purchased Power & Wheeling	\$ -			\$ -
Adjusted Purchased Power & Wheeling	\$ 28,953,676			\$ 28,953,676
<b>Operations</b>				
Hydraulic Generation	\$ 2,900,291	\$ -	\$ 3,200,394	\$ 6,100,685
Transmission & Distribution	\$ -	\$ -	\$ -	\$ -
Water Quality Expense	\$ -	\$ 9,557,862	\$ -	\$ 9,557,862
Adjustments to Operations	\$ -	\$ -	\$ -	\$ -
Adjusted Operations	\$ 2,900,291	\$ 9,557,862	\$ 3,200,394	\$ 15,658,547
<b>Maintenance</b>				
Hydraulic Generation	\$ 1,840,096	\$ 3,238,622	\$ 8,581,952	\$ 13,660,670
Transmission & Distribution	\$ 3,359,385	\$ -	\$ -	\$ 3,359,385
Water Quality Expense	\$ -	\$ -	\$ -	\$ -
Adjustments to Maintenance	\$ (151,442)	\$ -	\$ -	\$ (151,442)
Adjusted Maintenance	\$ 5,048,039	\$ 3,238,622	\$ 8,581,952	\$ 16,868,613
<b>Total Adjusted Operating Expense</b>	\$ 36,902,006	\$ 12,796,484	\$ 11,782,346	\$ 61,480,836
<b>General &amp; Administrative Expense</b>				
COWCAP	\$ -	\$ -	\$ 1,139,579	\$ 1,139,579
Services of SFPUC Bureaus	\$ 5,375,656	\$ 2,879,651	\$ -	\$ 8,255,307
Customer Accounts	\$ 347,403	\$ -	\$ -	\$ 347,403
Adjustments to Customer Accounts	\$ -	\$ -	\$ -	\$ -
Adjusted Customer Accounts	\$ 347,403	\$ -	\$ -	\$ 347,403
Other General & Administrative	\$ 14,913,071	\$ 36,070	\$ 10,632,340	\$ 25,581,481
Adjustments to General & Administrative	\$ -	\$ -	\$ -	\$ -
Adjusted General & Administrative	\$ 14,913,071	\$ 36,070	\$ 10,632,340	\$ 25,581,481
<b>Total General &amp; Administrative</b>	\$ 20,636,130	\$ 2,915,721	\$ 11,771,919	\$ 35,323,770
<b>Property Taxes</b>	\$ -	\$ -	\$ 452,000	\$ 452,000
<b>Total</b>	\$ 57,538,136	\$ 15,712,205	\$ 24,006,265	\$ 97,256,606

Source: FAMIS/EIS

Note: All adjustments to be separately identified above

SCHEDULE OF PROJECTED WATER SALES, WHOLESALEREVENUE REQUIREMENTS, AND WHOLESALEREVENUE RATES  
 CONTRACT REFERENCE: ARTICLE 6.03.A.3

	N	N+1	N+2	N+3	N+4
<b>OPERATION AND MAINTENANCE EXPENSES</b>					
SOURCE OF SUPPLY	\$ 9,364,568	\$ -	\$ -	\$ -	\$ -
PUMPING	\$ 334,210	\$ -	\$ -	\$ -	\$ -
TREATMENT	\$ 20,821,372	\$ -	\$ -	\$ -	\$ -
TRANSMISSION & DISTRIBUTION	\$ 15,902,690	\$ -	\$ -	\$ -	\$ -
CUSTOMER ACCOUNTS	\$ 151,044	\$ -	\$ -	\$ -	\$ -
TOTAL OPERATION AND MAINTENANCE EXPENSES	\$ 46,573,884	\$ -	\$ -	\$ -	\$ -
<b>ADMINISTRATIVE AND GENERAL EXPENSES</b>					
COWCAP	\$ 520,857	\$ -	\$ -	\$ -	\$ -
SF PUBLIC UTILITIES COMMISSION	\$ 9,770,798	\$ -	\$ -	\$ -	\$ -
OTHER A&G	\$ 3,770,749	\$ -	\$ -	\$ -	\$ -
COMPLIANCE AUDIT	\$ 100,000	\$ -	\$ -	\$ -	\$ -
TOTAL ADMINISTRATIVE AND GENERAL EXPENSES	\$ 14,162,394	\$ -	\$ -	\$ -	\$ -
<b>PROPERTY TAXES</b>					
	\$ 969,287	\$ -	\$ -	\$ -	\$ -
<b>CAPITAL COST RECOVERY</b>					
PRE 2009 ASSETS	\$ 24,051,926	\$ -	\$ -	\$ -	\$ -
DEBT SERVICE ON NEW ASSETS	\$ 17,662,931	\$ -	\$ -	\$ -	\$ -
REVENUE FUNDED CAPITAL	\$ 8,381,400	\$ -	\$ -	\$ -	\$ -
TOTAL CAPITAL COST RECOVERY	\$ 50,095,657	\$ -	\$ -	\$ -	\$ -
<b>WHOLESALEREVENUE REQUIREMENT</b>					
WHOLESALEREVENUE REQUIREMENT	\$ 28,903,512	\$ -	\$ -	\$ -	\$ -
	\$ 140,894,734	\$ -	\$ -	\$ -	\$ -
<b>BALANCING ACCOUNT AS OF JUNE 30</b>					
INTEREST ON BALANCING ACCOUNT	\$ -	\$ -	\$ -	\$ -	\$ -
WHOLESALEREVENUES AT EXISTING RATE	\$ (127,485,900)	\$ -	\$ -	\$ -	\$ -
WHOLESALEREVENUE EXCESS USE CHARGES	\$ -	\$ -	\$ -	\$ -	\$ -
SETTLEMENT CREDITS AND OTHER ADJUSTMENTS	\$ 21,000	\$ -	\$ -	\$ -	\$ -
1984 AGREEMENT BALANCING ACCOUNT CREDITS	\$ 1,997,220	\$ -	\$ -	\$ -	\$ -
WHOLESALEREVENUE DEBIT SERVICE COVERAGE RESERVE	\$ 4,488,233	\$ -	\$ -	\$ -	\$ -
WHOLESALEREVENUE DEFICIENCY OR CREDIT	\$ 20,015,287	\$ -	\$ -	\$ -	\$ -
PERCENT WHOLESALEREVENUE DEFICIENCY OR CREDIT OF REVENUES AND EXCESS USE CHARGES	15.7%				
<b>PROJECTED WATER SALES (CCF)</b>					
PROJECTED WATER SALES (CCF)	85,920,000	0	0	0	0
WHOLESALEREVENUE DEFICIENCY OR CREDIT (\$/CCF)	0.23	0	0	0	0
PROJECTED WHOLESALEREVENUE RATE (UNIT COST) (\$/CCF)	1.66	0	0	0	0
<b>PROJECTED SERVICE CHARGE REVENUES</b>					
PROJECTED SERVICE CHARGE REVENUES	\$ 4,620,300	\$ -	\$ -	\$ -	\$ -
PROJECTED VOLUME CHARGE REVENUES	\$ 142,627,200	\$ -	\$ -	\$ -	\$ -
TOTAL WHOLESALEREVENUES	\$ 147,247,500	\$ -	\$ -	\$ -	\$ -



**ATTACHMENT O**  
**STATEMENT OF WHOLESALE REVENUE REQUIREMENT/ CHANGES IN BALANCING ACCOUNT**  
**YEAR ENDED JUNE 30**  
**(Section 7.02.B)**

	FY 2008-09 Allocation to Wholesale Customers	FY 2009-10 Allocation to Wholesale Customers	Difference
Wholesale Revenue Requirement Calculation:			
Operating and maintenance (O&M) expense:			
San Francisco Water Enterprise:			
Source of supply	\$ 9,133,025	\$ 9,364,568	\$ 231,543
Pumping	\$ 325,946	\$ 334,210	\$ 8,264
Purification	\$ 20,437,460	\$ 20,821,372	\$ 383,912
Transmission and distribution	\$ 9,350,279	\$ 15,902,690	\$ 6,552,411
Customer Accounts	\$ 224,255	\$ 151,044	\$ (73,211)
Total SFWE operating and maintenance	\$ 39,470,965	\$ 46,573,884	\$ 7,102,919
Hetch Hetchy Water and Power (HHWP):			
Operating expenses	\$ 10,359,786	\$ 7,484,165	\$ (2,875,621)
Maintenance expenses	\$ 4,526,240	\$ 4,831,890	\$ 305,650
Total HHWP operating and maintenance	\$ 14,886,026	\$ 12,316,055	\$ (2,569,971)
Administrative and general (A&G) expenses:			
COWCAP			
SFWE	\$ 512,438	\$ 520,857	\$ 8,419
HHWP	\$ 162,364	\$ 348,968	\$ 186,604
SF Public Utilities Commission:			
SFWE	\$ 7,461,835	\$ 9,770,788	\$ 2,308,953
HHWP	\$ 2,357,622	\$ 1,959,603	\$ (398,019)
Other A&G – SFWE	\$ 8,234,799	\$ 3,770,749	\$ (4,464,050)
Other A&G – HHWP	\$ -	\$ 3,280,434	\$ 3,280,434
Compliance audit	\$ 95,338	\$ 100,000	\$ 4,662
Total administrative and general expenses	\$ 18,824,396	\$ 19,751,399	\$ 927,003
Property taxes (outside city only):			
SFWE	\$ 964,040	\$ 969,287	\$ 5,247
HHWP	\$ 120,923	\$ 139,732	\$ 18,809
Total property taxes	\$ 1,084,963	\$ 1,109,019	\$ 24,056
Capital Cost Recovery			
Pre-2009 Assets			
SFWE		\$ 24,051,326	
HHWP		\$ 3,118,033	
Debt Service on New Assets			
SFWE		\$ 17,952,931	
HHWP		\$ -	
Revenue Funded Assets			
SFWE		\$ 8,381,400	
HHWP		\$ 7,740,688	
Total Capital Cost Recovery	\$ 46,378,941	\$ 61,244,378	\$ 14,865,437
Total Wholesale Revenue Requirement	\$ 120,645,291	\$ 140,994,735	\$ 20,349,444
Balancing Account July 1			
Interest on adjusted beginning balance	\$ 21,176,614	\$ -	
Wholesale revenues billed	\$ 529,415	\$ -	
Excess use charges billed	\$ (123,604,000)	\$ (147,247,500)	
Wholesale Revenue Coverage Reserve	\$ -	\$ -	
Other adjustments	\$ -	\$ 4,488,233	
Settlement adjustments	\$ -	\$ -	
1984 Agreement Balancing Account Credits	\$ 21,006	\$ 21,006	
	\$ -	\$ 1,997,220	
Balancing Account June 30	\$ 18,768,326	\$ 253,694	

**Attachment P**  
**REPRESENTATION LETTER**

Certification Pursuant to Water Sales Agreement (the Agreement) between the City and County of San Francisco (San Francisco) and certain wholesale customers in the counties of San Mateo, Santa Clara, and Alameda (the Wholesale Customers) effective July 1, 2009.

Each of the undersigned certifies that:

1. I have reviewed San Francisco Water Department and Hetch Hetchy Water & Power Department Report on the Calculation of the Wholesale Revenue Requirement and Statement of Changes in the Balancing Account (the Statement) for the year ended June 30, 200X;

Based on my knowledge, this report and Statement do not contain any untrue statements of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by the report;

Based on my knowledge, the Statement and other financial information included in the report, fairly presents in all material respects the proper costs incurred and allocated to the Wholesale Customers in accordance with the provisions of the Agreement.

The below certifying officers and I are responsible for establishing and maintaining internal control over financial reporting and have:

Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting for purposes of the preparation of the Statement.

Evaluated the effectiveness of the allocation procedures to ensure compliance with the terms of the Agreement.

The Statement fully complies with the contractual requirements of the Agreement and fairly presents, in all material respects, the allocation of costs to the Wholesale Customers in accordance with the Agreement.

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General Manager, SFPUC Date

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Assistant General Manager & Chief Financial Officer, SFPUC Date

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Finance Director, SFPUC Date

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Accounting Manager, SFPUC Date

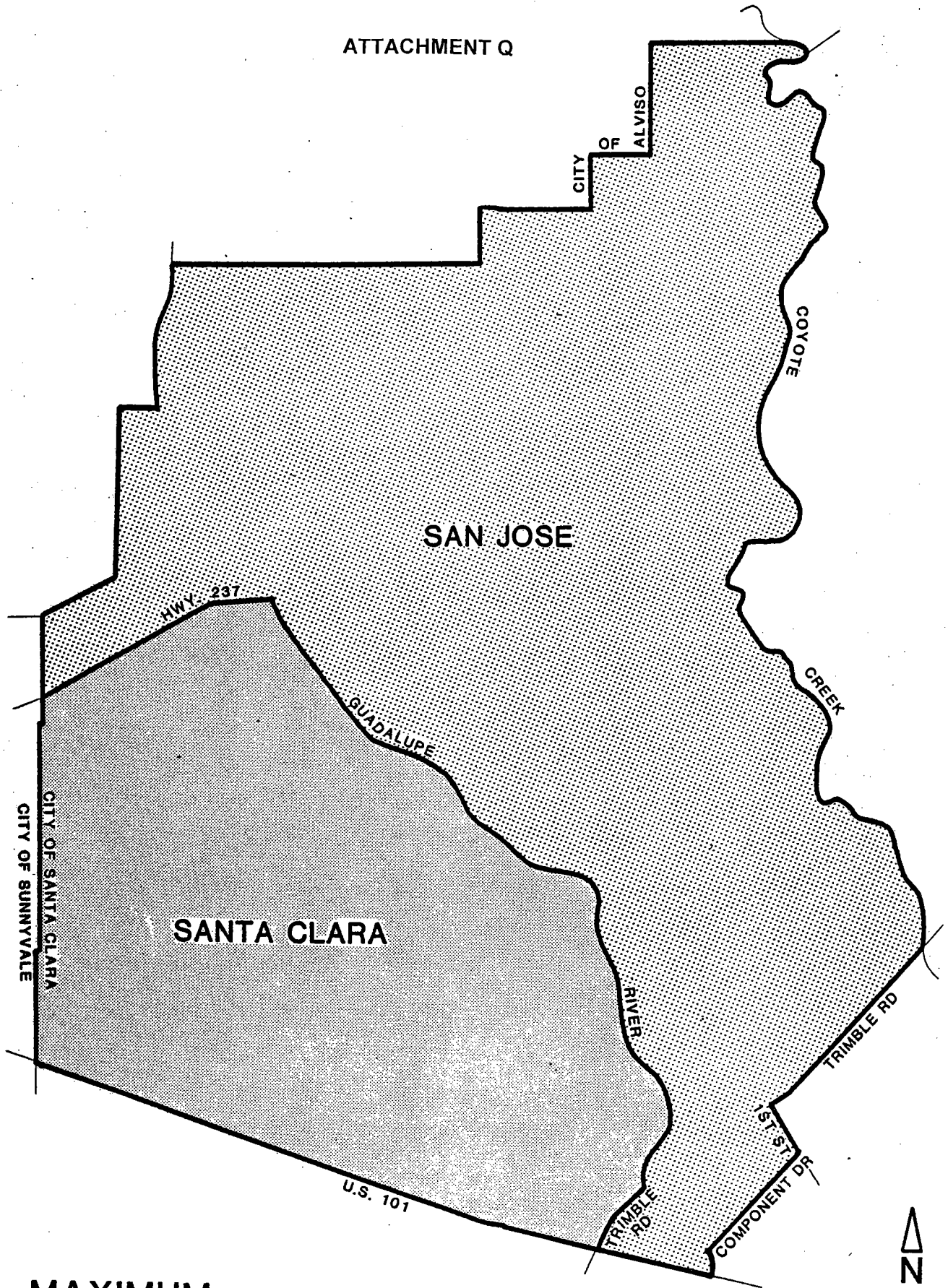
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Financial Planning Manager, SFPUC Date

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Senior Rates Administrator, SFPUC Date

ATTACHMENT Q



MAXIMUM  
SERVICE AREAS

## **Appendix B**





## SAN FRANCISCO PUBLIC UTILITIES COMMISSION

1145 Market St., 4th Floor, San Francisco, CA 94103 • Tel. (415) 554-3271 • Fax (415) 554-3161 • TTY (415) 934-5770



March 31, 2011

Nicole Sandkulla  
Senior Water Resources Engineer  
Bay Area Water Supply and Conservation Agency  
155 Bovet Road, Suite 302  
San Mateo, CA 94402

EDWIN M. LEE  
MAYOR

FRANCESCA VIOTOR  
PRESIDENT

ANSON MORAN  
VICE PRESIDENT

ANN MOLLER CAEN  
COMMISSIONER

ART TORRES  
COMMISSIONER

VINCE COURTNEY  
COMMISSIONER

ED HARRINGTON  
GENERAL MANAGER

Dear Nicole,

Attached please find additional information through 2035 on the Regional Water System's supply reliability for use in the Wholesale Customer's 2010 Urban Water Management Plan updates. The SFPUC has assessed the water supply reliability under the following planning scenarios:

- Projected Single dry-year supply for 2010
- Projected Multiple dry-year supply beginning 2010; and
- Projected supply reliability for years 2010-2035.

Table 1 summarizes deliveries to the Wholesale Customers for projected single dry-year supply for 2010 and projected multiple dry-year supply beginning 2010.

With regards to future demands, the SFPUC proposes to expand their water supply portfolio by increasing the types of water supply resources. Table 2 summarizes the water supply resources assumed to be available by 2035.

Concerning allocation of supply during dry years, the Water Shortage Allocation Plan ("Plan") was utilized to allocate shortages between the SFPUC and the Wholesale Customers collectively. The Plan implements a method for allocating water among the individual Wholesale Customers which has been adopted by the Wholesale Customers. The Plan was adopted pursuant to Section 7.03(a) of the 1984 Settlement Agreement and Master Water Sales Contract and has been updated to correspond to the terminology used in the June 2009 Water Supply Agreement between the City and County of San Francisco and Wholesale Customers in Alameda County, San Mateo County and Santa Clara County.

Finally, the SFPUC estimated the frequency and severity of anticipated shortages for the period 2010 through 2035. For this analysis, we assumed that the historical hydrologic period is indicative of future events and evaluated the supply reliability assuming a repeat of the actual historic hydrologic period 1920 through 2002. The results of this analysis are summarized in Table 3.

It is our understanding that you will pass this information on to the Wholesale Customers. If you have any questions or need additional information, please do not hesitate to contact me at (415) 554-0792.

Sincerely,

A handwritten signature in blue ink that reads "Paula Kehoe". The signature is written in a cursive style with a long horizontal flourish at the end.

Paula Kehoe  
Director of Water Resources



**Table 1  
Projected Deliveries for Three  
Multiple Dry Years**

	2010	One Critical Dry Year	Deliveries during Multiple Dry Years in mgd		
			Year 1	Year 2	Year 3
System-Wide Shortage in Percent	0%	10%	10%	20%	20%
Wholesale Allocation (mgd)	184.0	152.6	152.6	132.5	132.5

**Table 2**

**UWMP Studies: Water Supply  
Reliability  
Water Supply Options for Years 2010  
through 2030**

	2010	2015	2020	2025	2030	2035
Crystal Springs Reservoir (20.28bg)		x	x	x	x	x
Westside Basin Groundwater afa		8,100	8,100	8,100	8,100	8,100
Calaveras Reservoir Recovery (31.5 bg)		x	x	x	x	x
Districts' Transfer afa		2240	2240	2240	2240	2240

**Table 3: Projected System Supply Reliability Based on Historical Hydrologic Period**

Allocation by Year	Wholesale Demand in mgd					
	184.0	184.0	184.0	184.0	184.0	184.0
Projected Wholesale Allocation in mgd						
Delivery for Fiscal Year	2010	2015	2020	2025	2030	2035
1920	184.0	184.0	184.0	184.0	184.0	184.0
1921	184.0	184.0	184.0	184.0	184.0	184.0
1922	184.0	184.0	184.0	184.0	184.0	184.0
1923	184.0	184.0	184.0	184.0	184.0	184.0
1924	184.0	184.0	184.0	184.0	184.0	184.0
1925	154.6	184.0	184.0	184.0	184.0	184.0
1926	184.0	184.0	184.0	184.0	184.0	184.0
1927	184.0	184.0	184.0	184.0	184.0	184.0
1928	184.0	184.0	184.0	184.0	184.0	184.0
1929	184.0	184.0	184.0	184.0	184.0	184.0
1930	184.0	184.0	184.0	184.0	184.0	184.0
1931	184.0	184.0	184.0	184.0	184.0	184.0
1932	132.5	152.6	152.6	152.6	152.6	152.6
1933	184.0	184.0	184.0	184.0	184.0	184.0
1934	184.0	184.0	184.0	184.0	184.0	184.0
1935	154.6	184.0	184.0	184.0	184.0	184.0
1936	184.0	184.0	184.0	184.0	184.0	184.0
1937	184.0	184.0	184.0	184.0	184.0	184.0
1938	184.0	184.0	184.0	184.0	184.0	184.0
1939	184.0	184.0	184.0	184.0	184.0	184.0
1940	184.0	184.0	184.0	184.0	184.0	184.0
1941	184.0	184.0	184.0	184.0	184.0	184.0
1942	184.0	184.0	184.0	184.0	184.0	184.0
1943	184.0	184.0	184.0	184.0	184.0	184.0
1944	184.0	184.0	184.0	184.0	184.0	184.0
1945	184.0	184.0	184.0	184.0	184.0	184.0
1946	184.0	184.0	184.0	184.0	184.0	184.0
1947	184.0	184.0	184.0	184.0	184.0	184.0
1948	184.0	184.0	184.0	184.0	184.0	184.0
1949	184.0	184.0	184.0	184.0	184.0	184.0
1950	184.0	184.0	184.0	184.0	184.0	184.0
1951	184.0	184.0	184.0	184.0	184.0	184.0
1952	184.0	184.0	184.0	184.0	184.0	184.0
1953	184.0	184.0	184.0	184.0	184.0	184.0
1954	184.0	184.0	184.0	184.0	184.0	184.0
1955	184.0	184.0	184.0	184.0	184.0	184.0
1956	184.0	184.0	184.0	184.0	184.0	184.0
1957	184.0	184.0	184.0	184.0	184.0	184.0
1958	184.0	184.0	184.0	184.0	184.0	184.0
1959	184.0	184.0	184.0	184.0	184.0	184.0

Delivery for Fiscal Year	2010	2015	2020	2025	2030	2035
1960	184.0	184.0	184.0	184.0	184.0	184.0
1961	152.6	184.0	184.0	184.0	184.0	184.0
1962	132.5	152.6	152.6	152.6	152.6	152.6
1963	184.0	184.0	184.0	184.0	184.0	184.0
1964	184.0	184.0	184.0	184.0	184.0	184.0
1965	184.0	184.0	184.0	184.0	184.0	184.0
1966	184.0	184.0	184.0	184.0	184.0	184.0
1967	184.0	184.0	184.0	184.0	184.0	184.0
1968	184.0	184.0	184.0	184.0	184.0	184.0
1969	184.0	184.0	184.0	184.0	184.0	184.0
1970	184.0	184.0	184.0	184.0	184.0	184.0
1971	184.0	184.0	184.0	184.0	184.0	184.0
1972	184.0	184.0	184.0	184.0	184.0	184.0
1973	184.0	184.0	184.0	184.0	184.0	184.0
1974	184.0	184.0	184.0	184.0	184.0	184.0
1975	184.0	184.0	184.0	184.0	184.0	184.0
1976	184.0	184.0	184.0	184.0	184.0	184.0
1977	152.6	184.0	184.0	184.0	184.0	184.0
1978	136.2	152.6	152.6	152.6	152.6	152.6
1979	184.0	184.0	184.0	184.0	184.0	184.0
1980	184.0	184.0	184.0	184.0	184.0	184.0
1981	184.0	184.0	184.0	184.0	184.0	184.0
1982	184.0	184.0	184.0	184.0	184.0	184.0
1983	184.0	184.0	184.0	184.0	184.0	184.0
1984	184.0	184.0	184.0	184.0	184.0	184.0
1985	184.0	184.0	184.0	184.0	184.0	184.0
1986	184.0	184.0	184.0	184.0	184.0	184.0
1987	184.0	184.0	184.0	184.0	184.0	184.0
1988	152.6	184.0	184.0	184.0	184.0	184.0
1989	132.5	152.6	152.6	152.6	152.6	152.6
1990	132.5	152.6	152.6	152.6	152.6	152.6
1991	132.5	132.5	132.5	132.5	132.5	132.5
1992	132.5	152.6	152.6	152.6	152.6	152.6
1993	136.2	132.5	132.5	132.5	132.5	132.5
1994	184.0	184.0	184.0	184.0	184.0	184.0
1995	154.6	184.0	184.0	184.0	184.0	184.0
1996	184.0	184.0	184.0	184.0	184.0	184.0
1997	184.0	184.0	184.0	184.0	184.0	184.0
1998	184.0	184.0	184.0	184.0	184.0	184.0
1999	184.0	184.0	184.0	184.0	184.0	184.0
2000	184.0	184.0	184.0	184.0	184.0	184.0
2001	184.0	184.0	184.0	184.0	184.0	184.0
2002	184.0	184.0	184.0	184.0	184.0	184.0