



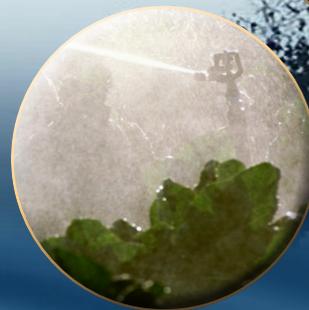
**Golden State**  
**Water Company**  
A Subsidiary of American States Water Company

*Final Report*

# 2010 Urban Water Management Plan

## *South Arcadia*

**CORPORATE OFFICE**  
**630 E. FOOTHILL BLVD.**  
**SAN DIMAS CA 91773**



*August 2011*

**Kennedy/Jenks Consultants**



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*Final Report*

# 2010 Urban Water Management Plan – South Arcadia



**Golden State**  
Water Company

A Subsidiary of American States Water Company

## **Corporate Office**

630 E. Foothill Blvd.  
San Dimas, CA 91773

August 2011

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## Notice of Adoption

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A meeting to solicit public comments on the 2010 Urban Water Management Plan for the Golden State Water Company South Arcadia System was held on July 19, 2011 at 6 p.m. at the San Dimas Community Center in San Dimas, California. Notice of this meeting was published in accordance with Section 6066 of the Government Code in the San Gabriel Valley Tribune on May 17, 22, and June 15, 2011.

Copies of the Urban Water Management Plan were made available to the public at the Golden State Water Company Customer Service Office in Arcadia, California at least one week prior to the public hearing.

Golden State Water Company, hereby, adopts the 2010 Urban Water Management Plan for the South Arcadia System.

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William C. Gedney  
Vice President, Asset Management  
Golden State Water Company

August 31, 2011

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## Abbreviations

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µg/L	micrograms per liter
ac-ft	acre-feet
ac-ft/yr or AFY	acre-feet per year
Act	Urban Water Management Planning Act
AMR	automatic meter reading
AWWA	American Water Works Association
BMPs	best management practices
Cal EMA	California Emergency Management Agency
CAL Green Code	California Green Building Standards Code
ccf	hundred cubic feet
CDPH	California Department of Public Health
CII	commercial, industrial, institutional
CIMIS	California Irrigation Management Information System
COG	Council of Governments
Council or CUWCC	California Urban Water Conservation Council
CPUC	California Public Utilities Commission
CRA	Colorado River Aqueduct
D/DBP	disinfectant/disinfection by-product
DMM	Demand Management Measure
DOF	Department of Finance
DSC	Discovery Science Center
DWF	dry weather flow
DWR	Department of Water Resources (California)
DWR Guidebook	Guidebook to Assist Water Suppliers in the Preparation of a 2010 Urban Water Management Plan

ERP	Emergency Response Plan
ETo	evapotranspiration
GAC	Granular Activated Carbon
GIS	Geographic Information System
gpcd	gallons per capita day
gpd	gallons per day
gpm	U.S. gallons per minute
GSWC	Golden State Water Company
HCD	Housing and Community Development
HECW	high efficiency clothes washers
HET	high efficiency toilets
ILI	infrastructure leakage index
IRP	Integrated Resources Plan
LACSD	Sanitation Districts of Los Angeles County
MAF	million acre-feet per year
MCL	maximum contaminant levels
Metropolitan	Metropolitan Water District of Southern California
MF	multi-family
mgd	million gallons per day
MOU	memorandum of understanding (regarding urban water conservation in California)
msl	mean sea level
N/A	not available, not applicable
NAICS	North American Industry Classification System
O&M	operation and maintenance
OSY	operating safe yield
pCi/L	picoCuries per liter
RAP	Resource Action Programs

RHNA	Regional Housing Needs Allocation
RTP	Regional Transportation Plan
RUWMP	Regional Urban Water Management Plan
SBX7-7	Senate Bill X7-7, The Water Conservation Act of 2009
SCAG	Southern California Association of Governments
SD	Science Discover
SDWA	Safe Drinking Water Act
SF	single-family San Gabriel Valley Municipal Water District
SGVMWD	San Gabriel Valley Municipal Water District
SWP	State Water Project
TAF	thousand acre-feet per year
TC	total coliform
ULFT	ultra-low-flush-toilet
Upper District	Upper San Gabriel Valley Municipal Water District
USEPA	U.S. Environmental Protection Agency
UWMP	Urban Water Management Plan
VOCs	volatile organic compounds
WBIC	weather based irrigation controllers
WAP	Water Action Plan
WLCD	Water Loss Control Department
WRCC	Western Regional Climate Center
WRP	water reclamation plant
WSAP	Water Supply Allocation Plan
WSDM Plan	Water Surplus and Drought Management Plan
WSS	WaterSense Specification

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## Definitions

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Chapter 2, Part 2.6, Division 6 of the California Water Code provides definitions for the construction of the Urban Water Management Plans. Appendix A contains the full text of the Urban Water Management Planning Act.

### CHAPTER 2. DEFINITIONS

*Section 10611. Unless the context otherwise requires, the definitions of this chapter govern the construction of this part.*

*Section 10611.5. "Demand management" means those water conservation measures, programs, and incentives that prevent the waste of water and promote the reasonable and efficient use and reuse of available supplies.*

*Section 10612. "Customer" means a purchaser of water from a water supplier who uses the water for municipal purposes, including residential, commercial, governmental, and industrial uses.*

*Section 10613. "Efficient use" means those management measures that result in the most effective use of water so as to prevent its waste or unreasonable use or unreasonable method of use.*

*Section 10614. "Person" means any individual, firm, association, organization, partnership, business, trust, corporation, company, public agency, or any agency of such an entity.*

*Section 10615. "Plan" means an urban water management plan prepared pursuant to this part. A plan shall describe and evaluate sources of supply, reasonable and practical efficient uses, and reclamation and demand management activities. The components of the plan may vary according to an individual community or area's characteristics and its capabilities to efficiently use and conserve water. The plan shall address measures for residential, commercial, governmental, and industrial water demand management as set forth in Article 2 (commencing with Section 10630) of Chapter 3. In addition, a strategy and time schedule for implementation shall be included in the plan.*

*Section 10616. "Public agency" means any board, commission, county, city and county, city, regional agency, district, or other public entity.*

*Section 10616.5. "Recycled water" means the reclamation and reuse of wastewater for beneficial use.*

*Section 10617. "Urban water supplier" means a supplier, either publicly or privately owned, providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually. An urban water supplier includes a supplier or contractor for water, regardless of the basis of right, which distributes or sells for ultimate resale to customers. This part applies only to water supplied from public water systems subject to Chapter 4 (commencing with Section 116275) of Part 12 of Division 104 of the Health and Safety Code.*

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# Chapter 1: Plan Preparation

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## 1.1 Background

This Urban Water Management Plan (UWMP) has been prepared for the Golden State Water Company (GSWC) South Arcadia System in compliance with Division 6, Part 2.6, of the California Water Code, Sections 10608 through 10657 as last amended by Senate Bill No. 7 (SBX7-7), the Water Conservation Act of 2009. The original bill requiring an UWMP was enacted in 1983. SBX7-7, which became law in November 2009, requires increased emphasis on water demand management and requires the state to achieve a 20 percent reduction in urban per capita water use by December 31, 2020.

Urban water suppliers having more than 3,000 service connections or water use of more than 3,000 acre-feet per year (ac-ft/yr) are required to submit a UWMP every 5 years to the California Department of Water Resources (DWR). The UWMP typically must be submitted by December 31 of years ending in 0 and 5, however SBX7-7 extended the UWMP deadline to July 1, 2011 to provide for development by DWR of required evaluation methodologies for determining conservation goals. GSWC prepared an UWMP for the South Arcadia System in 1985, 1990, 1995, 2000, and 2005. This 2010 UWMP is an update to the 2005 plan.

GSWC water use targets for the South Arcadia System were developed based on Compliance Method 3 and the Minimum Reduction requirement, as described by SBX7-7 and supplemental guidance from DWR.

The portion of the Urban Water Management Planning Act (Act) that describes the purpose and intent of the UWMP states and declares the following:

*Section 10610.2.*

*(a) The Legislature finds and declares all of the following:*

- (1) The waters of the state are a limited and renewable resource subject to ever-increasing demands.*
- (2) The conservation and efficient use of urban water supplies are of statewide concern; however, the planning for that use and the implementation of those plans can best be accomplished at the local level.*
- (3) A long-term, reliable supply of water is essential to protect the productivity of California's businesses and economic climate.*
- (4) As part of its long-range planning activities, every urban water supplier should make every effort to ensure the appropriate level of reliability in its water service sufficient to meet the needs of its various categories of customers during normal, dry, and multiple dry water years.*
- (5) Public health issues have been raised over a number of contaminants that have been identified in certain local and imported water supplies.*
- (6) Implementing effective water management strategies, including groundwater storage projects and recycled water projects, may require specific water quality and salinity targets for meeting groundwater basins water quality objectives and promoting beneficial use of recycled water.*
- (7) Water quality regulations are becoming an increasingly important factor in water agencies' selection of raw water sources, treatment alternatives, and modifications to existing treatment facilities.*
- (8) Changes in drinking water quality standards may also impact the usefulness of water supplies and may ultimately impact supply reliability.*
- (9) The quality of source supplies can have a significant impact on water management strategies and supply reliability.*

- (b) *This part is intended to provide assistance to water agencies in carrying out their long-term resource planning responsibilities to ensure adequate water supplies to meet existing and future demands for water.*

*Section 10610.4. The Legislature finds and declares that it is the policy of the state as follows:*

- (a) *The management of urban water demands and efficient use of water shall be actively pursued to protect both the people of the state and their water resources.*
- (b) *The management of urban water demands and efficient use of urban water supplies shall be a guiding criterion in public decisions.*
- (c) *Urban water suppliers shall be required to develop water management plans to actively pursue the efficient use of available supplies.*

## 1.2 System Overview

GSWC is an investor-owned public utility company which owns 38 water systems throughout California regulated by the California Public Utilities Commission (CPUC). This UWMP has been prepared for the South Arcadia System.

Located in Los Angeles County, the South Arcadia System serves part of the Cities of Temple City, Arcadia, El Monte, Irwindale and Monrovia, and portions of the adjacent unincorporated county land. The service area is primarily characterized by residential land use, with some commercial and industrial land use. Figure 1-1 illustrates the location of the South Arcadia System.

## 1.3 Notice of Document Use

GSWC is committed to implementation of the projects, plans, and discussions provided within this document. However, it is important to note that execution of the plan is contingent upon the regulatory limitations and approval of the CPUC and other state agencies. Additionally, this document merely presents the water supply, reliability, and conservation programs known and in effect at the time of adoption of this plan.

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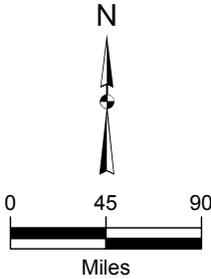


Los Angeles County

South Arcadia System

**Legend**

 South Arcadia Service Area



**Kennedy/Jenks Consultants**

Golden State Water Company  
2010 Urban Water Management Plan

**South Arcadia System  
Location Map**

K/J 1070001\*00  
August 2011

**Figure 1-1**

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## 1.4 Public Utility Commission 2010 Water Action Plan

The CPUC adopted the 2005 Water Action Plan (WAP) in December 2005 and an updated 2010 WAP in October 2010. The WAP is a general policy document, and specific implementation of policies and programs, along with modifications to CPUC ratemaking policies, and other programs including conservation, long-term planning, water quality and drought management programs are ongoing.

The purpose of the 2010 WAP update was to establish renewed focus on the following elements:

1. Maintain the highest standards of water quality;
2. Promote water infrastructure investment;
3. Strengthen water conservation programs to a level comparable to those of energy utilities;
4. Streamline CPUC regulatory decision-making;
5. Set rates that balance investment, conservation, and affordability; and
6. Assist low-income ratepayers.

GSWC has been actively involved with the CPUC in suggesting optimal approaches to the WAP. In particular, the GSWC has suggested specific implementation measures and modifications to certain CPUC rate setting practices so that regulated utilities are able as a practical matter to achieve the policy objectives of the WAP. These efforts are intended to include further investment in local resource optimization, reduced reliance on imported supplies, enhanced conservation, and intensification of company-wide efforts to optimize water resource mix, including planned water supply projects and programs to meet the long-term water supply needs of GSWC's customers.

## 1.5 Agency Coordination

The 2010 UWMP requirements for agency coordination include specific timetables and requirements as presented in this chapter. The required elements of the Act are as follows:

*Section 10620.*

- (d) (2) *Each urban water supplier shall coordinate the preparation of its plan with other appropriate agencies in the area, including other water suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable.*

*Section 10621.*

- (b) *Every urban water supplier required to prepare a plan pursuant to this part shall, at least 60 days prior to the public hearing on the plan required by Section 10642, notify any city or county within which the supplier provides water supplies that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan. The urban water supplier may consult with, and obtain comments from, any city or county that receives notice pursuant to this subdivision.*

*Section 10635.*

- (b) *The urban water supplier shall provide that portion of its urban water management plan prepared pursuant to this article to any city or county within which it provides water supplies no later than 60 days after the submission of its urban water management plan.*

*Section 10642. Each urban water supplier shall encourage the active involvement of diverse social, cultural, and economic elements of the population within the service area prior to and during the preparation of the plan. Prior to adopting a plan, the urban water supplier shall make the plan available for public inspection and shall hold a public hearing thereon. Prior to the hearing, notice of the time and place of hearing shall be published within the jurisdiction of the publicly owned water supplier pursuant to Section 6066 of the Government Code. The urban water supplier shall provide notice of the time and place of hearing to any city or county within which the supplier provides water supplies. A privately owned water supplier shall provide an equivalent notice within its service area.*

Table 1-1 lists the agencies with which coordination occurred while preparing this 2010 UWMP. The initial coordination included the distribution of letter notification and request for information as indicated in Table 1-1 followed by telephone correspondence as necessary to obtain supporting data for the preparation of the UWMP. Table 1-1 also provides a checklist of agencies that have been provided the notifications and access to the documents.

Table 1-1: Coordination with Agencies							
Agency	Contacted for Assistance	Participated in UWMP Development	Commented on the Draft	Attended Public Meetings	Received Copy of the Draft	Sent Notice of Intent to Adopt	Not Involved/ No Information
Southern California Association of Governments	✓						
City of Anaheim	✓					✓	
City of Arcadia	✓	✓				✓	
City of El Monte	✓	✓				✓	
City of Irwindale	✓					✓	
City of Monrovia	✓					✓	
City of Temple City	✓					✓	
County of Los Angeles	✓					✓	
Covina Irrigating Company	✓				✓	✓	
California American Water Company	✓					✓	
Los Angeles County Sanitation District	✓	✓				✓	

Note:

This table is based on DWR's *Guidebook to Assist Water Suppliers in the Preparation of a 2010 Urban Water Management Plan* (DWR Guidebook) Table 1.

## 1.6 Plan Adoption and Submittal

Public participation and plan adoption requirements are detailed in the following sections of the Act:

*Section 10621.*

*(c) The amendments to, or changes in, the plan shall be adopted and filed in the manner set forth in Article 3 (commencing with Section 10640)*

*Section 10642. After the hearing, the plan shall be adopted as prepared or as modified after the hearing.*

*Section 10644.*

*(a) An urban water supplier shall submit to the department, the California State Library, and any city or county within which the supplier provides water supplies a copy of its plan no later than 30 days after adoption. Copies of amendments or changes to the plans shall be submitted to the department, the California State Library, and any city or county within which the supplier provides water supplies within 30 days after adoption.*

*Section 10645. Not later than 30 days after filing a copy of its plan with the department, the urban water supplier and the department shall make the plan available for public review during normal business hours.*

A public hearing to review the 2010 South Arcadia System UWMP was held on July 19, 2011 at the San Dimas Community Center in San Dimas, California. This public session was held for review and comment on the draft UWMP before approval by GSWC. Legal public notices for the public hearing and availability of the plan for review and comment were published 60 days in advance in the local newspapers in accordance with Government Code Section 6066. Notifications were also posted to GSWC's website ([www.gswater.com](http://www.gswater.com)).

In addition, notifications of preparation of the plan were provided to cities and counties within which GSWC provides water at least 60 days in advance of the public hearing as required by the Act. Copies of the draft plan were available to the public for review at GSWC's South Arcadia office and posted on GSWC's website. Appendix B contains the following:

- Copy of the public hearing notice from the local newspaper,
- Screen capture of website posting of public hearing notice,
- Notifications and follow-up correspondence provided to cities and counties, and
- Meeting minutes from the public hearing pertaining to the UWMP.

The final UWMP, as adopted by GSWC, will be submitted to DWR, the California State Library, and cities and counties within which GSWC provides water within 30 days of adoption. Likewise, copies of any amendments or changes to the plan will be provided to the aforementioned entities within 30 days. This plan includes all information necessary to meet the requirements of California Water Code Division 6, Part 2.6 (Urban Water Management Planning). Adopted copies of this plan will be made available to the public at GSWC's South Arcadia Customer Service Office no later than 30 days after submitting the final UWMP to DWR.

## 1.7 UWMP Preparation

GSWC prepared this UWMP with the assistance of its consultant, Kennedy/Jenks Consultants, as permitted by the following section of the Act:

*Section 10620.*

*(e) The urban water supplier may prepare the plan with its own staff, by contract, or in cooperation with other governmental agencies.*

During the preparation of the UWMP, documents that have been prepared over the years by GSWC and other entities were reviewed and information from those documents incorporated, as applicable, into this UWMP. The list of references is provided in Chapter 9.

The adopted plan is available for public review at GSWC's South Arcadia Office as required by Section 10645. Copies of the plan were submitted to DWR, cities and counties within the service area, the State Library, and other applicable institutions within 30 days of adoption as required by Section 10644. Appendix H includes copies of the transmittals included with the adopted plan as supporting documentation.

## 1.8 UWMP Implementation

*Section 10643. An urban water supplier shall implement its plan adopted pursuant to this chapter in accordance with the schedule set forth in its plan.*

GSWC is committed to the implementation of this UWMP concurrent with the scheduled activities identified herein as required by Section 10643 of the Act. Each system is managed through GSWC District offices and is afforded staff with appropriate regulatory approval to properly plan and implement responses identified in this document and other key planning efforts to proactively address water supply reliability challenges. Furthermore, each region of GSWC has a conservation coordinator that oversees the implementation of DMMs through GSWC participation in the California Urban Water Conservation Council's (Council) Memorandum of Understanding (MOU).

## 1.9 Content of the UWMP

This UWMP addresses all subjects required by Section 10631 of the Act as defined by Section 10630, which permits "levels of water management planning commensurate with the numbers of customers served and the volume of water supplied." All applicable sections of the Act are discussed in this UWMP, with chapters of the UWMP and DWR Guidebook Checklist cross-referenced against the corresponding provision of the Act in Table 1-2. Also, a completed copy of the 2010 Urban Water Management Plan Checklist organized by subject is included as Appendix J.

Table 1-2: Summary of UWMP Chapters and Corresponding Provisions of the California Water Code

Chapter	Corresponding Provisions of the Water Code		DWR Guidebook Checklist No.
Chapter 1: Plan Preparation	10642	Public participation	55 and 56
	10643	Plan implementation	58
	10644	Plan filing	59
	10645	Public review availability	60
	10620 (a)–(e)	Coordination with other agencies; document preparation	4
	10621 (a)–(c)	City and county notification; due date; review	6 and 54
	10621 (c)	UWMP adoption	7 and 57
	10620 (f)	Resource optimization	5
Chapter 2: System Description	10631 (a)	Area, demographics, population, and climate	8-12
Chapter 3: Water Use	10608	Urban water use targets	1
	10631 (e), (k)	Water use, data sharing	25 and 34
	10631 (k)	Data to wholesaler	33
Chapter 4: Water Supply	10631 (b)–(d), (h), (k)	Water sources, reliability of supply, transfers and exchanges, supply projects, data sharing	13-21, 24, 30, 33
	10608.36 10608.26 (a)	Wholesaler present and future water reduction measures	2
	10631 (i)	Desalination	31
	10633	Recycled water	44-51
Chapter 5: Water Quality	10634	Water quality impacts on reliability	52
Chapter 6: Water Supply Reliability	10631 (c) (1)	Water supply reliability and vulnerability to seasonal or climatic shortage	22
	10631 (c) (2)	Factors resulting in inconsistency of supply	23
	10635 (a)	Reliability during normal, dry, and multiple-dry years	53
Chapter 7: Conservation Program and Demand Management Measures	10631 (f)–(g), (j) and 10631.5	Conservation Program, DMMs, and implementation status	26-29, 32
Chapter 8: Water Shortage Contingency Plan	10632	Water shortage contingency plan	35-43

## 1.10 Resource Optimization

Section 10620(f) of the Act asks urban water suppliers to evaluate water management tools and options to maximize water resources and minimize the need for purchased water from other regions. GSWC understands the limited nature of water supply in California and is committed to optimizing its available water resources. This commitment is demonstrated through GSWC's use of water management tools throughout the company to promote the efficient use of water supplies from local sources, wherever feasible. Additionally, GSWC takes efforts to procure local reliable water supplies wherever feasible and cost effective. GSWC is a regular participant in regional water resources planning efforts, and has developed internal company water resource plans and robust water conservation programs.

GSWC has implemented a robust water conservation program, deployed through each region of the company. In an effort to expand the breadth of offered programs, GSWC partners with wholesale suppliers, energy utilities, and other agencies that support water conservation programs.

## Chapter 2: System Description

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Chapter 2 summarizes the South Arcadia System's service area and presents an analysis of available demographics, population growth projections, and climate data to provide the basis for estimating future water requirements.

The water system description requirements are detailed in the following section of the Act:

*Section 10631*

(a) *Describe the service area of the supplier, including current and projected population, climate, and other demographic factors affecting the supplier's water management planning. The projected population estimates shall be based upon data from the state, regional, or local service agency population projections within the service area of the urban water supplier and shall be in five-year increments to 20 years or as far as data is available.*

### 2.1 Area

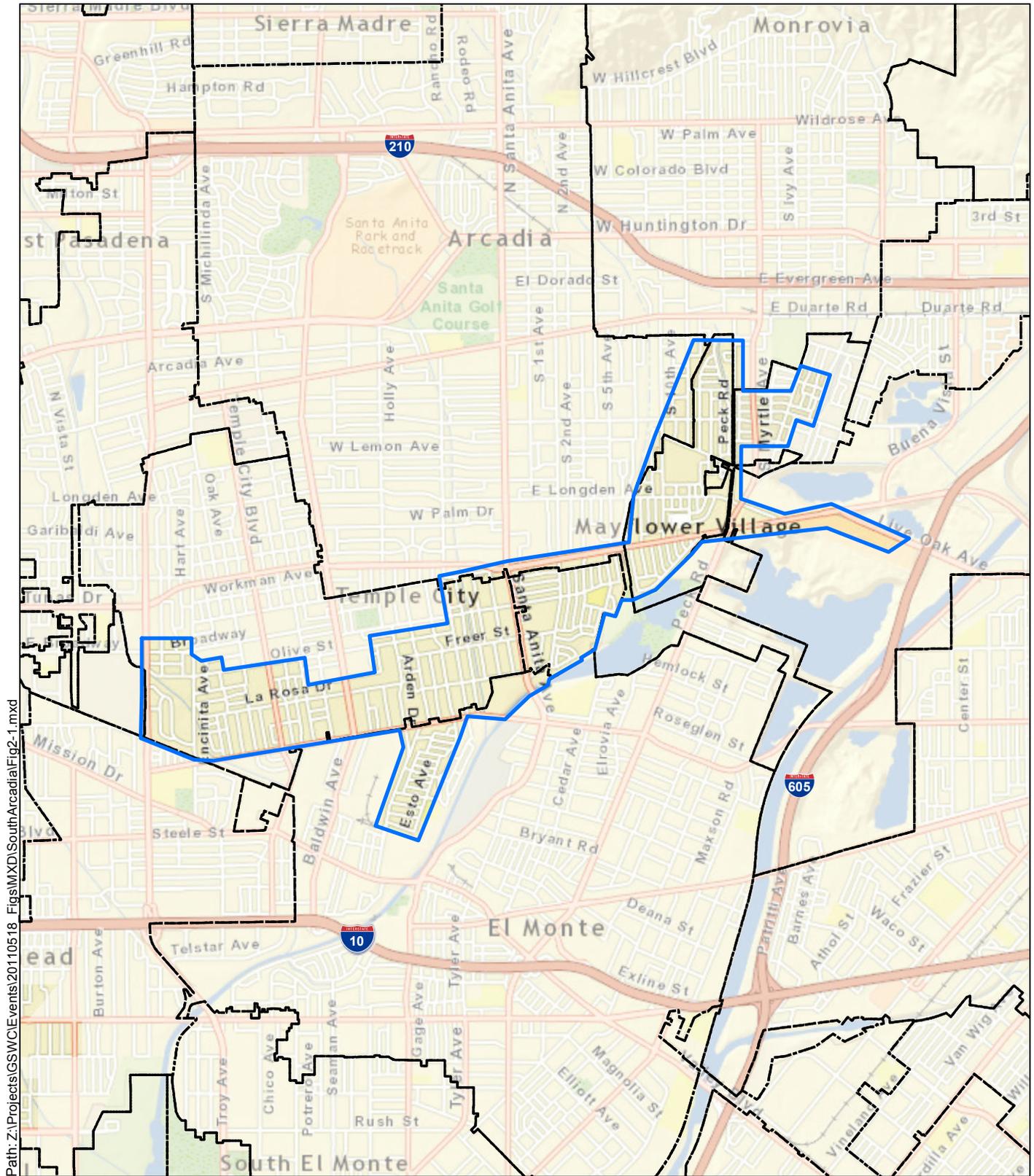
The South Arcadia System is located in Los Angeles County and serves part of the Cities of Temple City, Arcadia, El Monte, Irwindale and Monrovia, and portions of the adjacent unincorporated county land. The system is located in the San Gabriel Valley and is divided by the Santa Anita Wash. Since 2000, the boundaries of South Arcadia System have changed. The new service area boundary includes developed and underdeveloped land area to the east of South Arcadia System. Figure 2-1 illustrates the service area of South Arcadia System. The service area is primarily characterized by residential land use, with some commercial and industrial land use.

### 2.2 Demographics

The City of Temple City was chosen as demographically representative of the South Arcadia System. According to 2000 U.S. Census Data, the median age of Temple City's residents is 38.6 years. Temple City has an average household size of 2.90 and a median household income of approximately \$48,722 in 1999 dollars or \$63,631 in 2010 dollars.

A General Plan or land use information is not available for the South Arcadia System. Based on the South Arcadia's system map and review of recent satellite imagery, it appears to be near build-out. There are only a few undeveloped individual parcels in the system and any growth occurring will likely be a combination of urban expansion redevelopment, and in-fill. In a built-out or nearly built-out area, changes are typically minor and difficult to predict.

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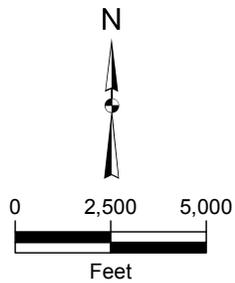


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Image Source: ESRI

**Legend**

-  South Arcadia System Boundary
-  City Boundary



**Kennedy/Jenks Consultants**  
 Golden State Water Company  
 2010 Urban Water Management Plan

**South Arcadia System Service Area**

K/J 1070001\*00  
 August 2011

**Figure 2-1**

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## 2.3 Population, Housing and Employment

Population, housing, and employment projections were developed for the South Arcadia System using the Southern California Association of Governments (SCAG) population, housing and employment data. SCAG recently updated its projections for population, household, and employment growth through the year 2035 using the 2008 “Integrated Growth Forecasting” process. SCAG’s methodology is described below, followed by the derivation of population projections for the South Arcadia System. Previous and current projections utilize 2000 U.S. Census Data.

SCAG is currently in the process of developing its 2012 Regional Transportation Plan (2012 RTP) which will utilize a new population projection model based on a 2010 Census data. In certain cases, growth rates using these preliminary data are significantly reduced from the 2008 model. The population, household, and employment projections in this document use the adopted 2008 RTP data. Future UWMP updates will be able to utilize 2012 RTP projections as well as 2010 Census data.

### 2.3.1 SCAG Population Projection Development Methodology

Population, housing, and employment data are derived from the 2000 U.S. Census, which forms a baseline for local data projections. SCAG applies a statistical cohort-component model and the headship rate to the 2000 U.S. Census data for regional, county, and household demographic projections. To evaluate the South Arcadia System, SCAG data was used in census tract form, the smallest geographic division of data that SCAG provides. SCAG projects subcounty and census tract demographic trends using the housing unit method.

The Integrated Growth Forecasting process uses a variety of estimates and projections from the federal and state governments. Sources include the U.S. Department of Labor, Internal Revenue Service (IRS), U.S. Citizenship and Immigration Services, U.S. Department of Health and Human Services, California Department of Finance (DOF), California Employment Development Department, and information received through the Intergovernmental Review process. A detailed explanation of the population projection process can be found in the adopted SCAG 2008 Regional Transportation Plan, Growth Forecast Report for SCAG.

### 2.3.2 Historical and Projected Population

SCAG-derived census-tract projections were used to determine historical and projected population from 2015 to 2035. The South Arcadia System service area boundaries often contain multiple census tracts, many of which have boundaries that do not coincide exactly with service area boundaries. The population projection analysis consisted of superimposing service area boundaries over census tract boundaries, identifying the applicable overlapping census tracts, and developing a percentage estimate for each overlapping area. For a census tract 100 percent within the service area boundaries, it was assumed that 100 percent of the associated census tract population data was applicable to the South Arcadia System. For areas where the overlap was not exact, the area of overlap as a percentage was applied to the data to develop an estimate of applicable population. Appendix G, Table G-1 lists the census tracts with a corresponding estimate of what percent of each tract lies within the South Arcadia System. It was typically assumed that the various types of housing and employment within a census tract are distributed uniformly within all parts of that census tract, unless maps indicated non-uniform concentrations. In these cases, population estimates were either increased or decreased as applicable to match the existing land use. Appendix G, Table G-2 contains all of the SCAG’s

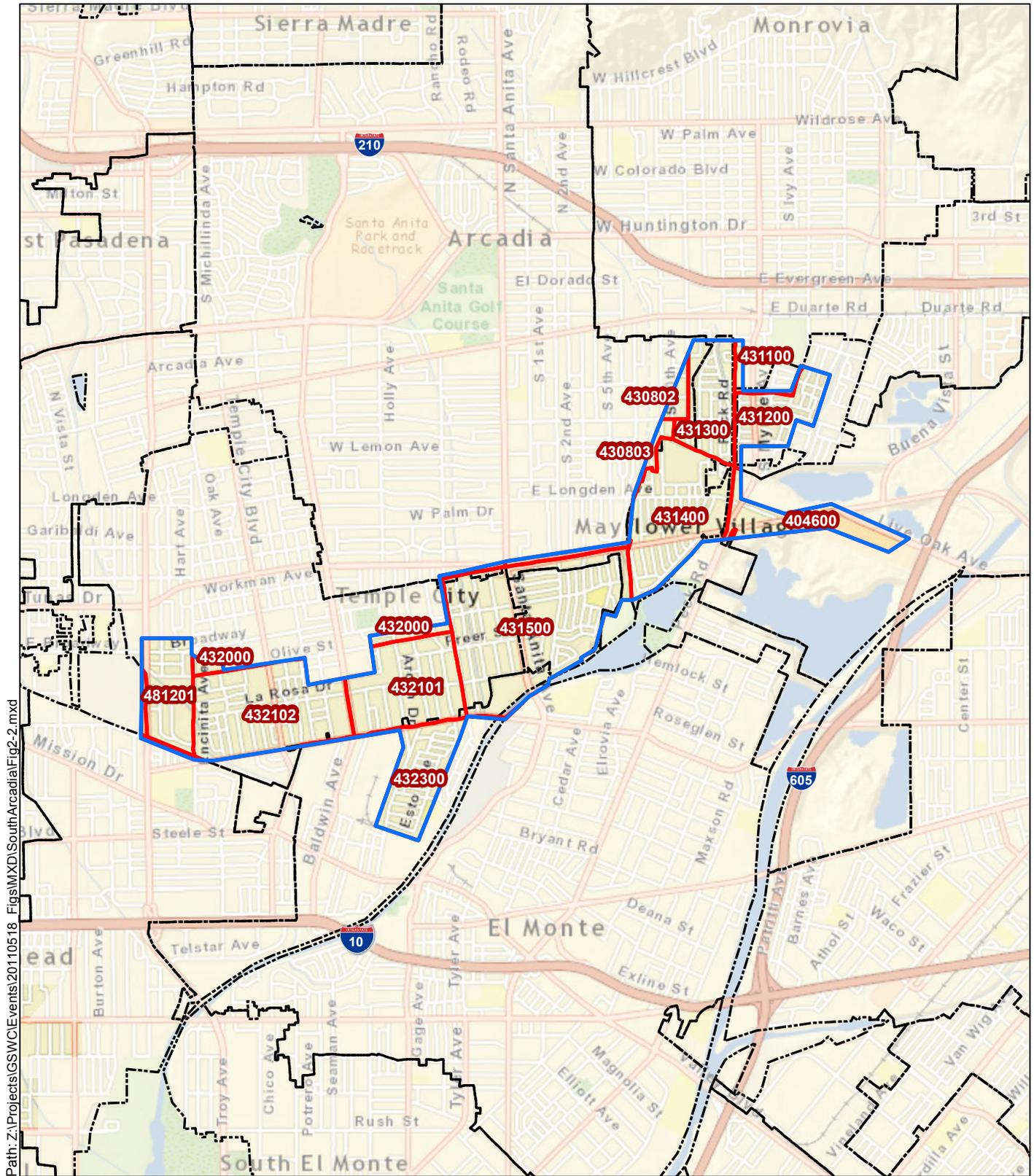
historic and projected demographic data for each census tract number from 2005 through 2035. Figure 2-2 details the census tracts within the South Arcadia System.

Annual estimates of historical population between 1997 and 2010 required for SBX7-7 are provided in Table 2-1. The population estimates were developed following DWR *Technical Methodology 2: Service Area Population*. GSWC is considered a Category 2 water supplier because they maintain a Geographic Information System (GIS) of their service area. The per-connection methodology described in Appendix A of *Technical Methodology 2* was used since annual estimates of direct service area population from SCAG or other local government agencies were not available. This method estimates annual population by anchoring the ratio of year 2000 residential connections to the year 2000 U.S. Census population. This ratio was then linearly scaled to active residential connections data to estimate population for the non-census years in which water supply data were available: 1997 through 2010. The residential billing category includes traditional single-family residential connections; however since GSWC does not have a specific multi-family billing category that only encompasses apartment complexes and other types of multi-family housing units, the ratio of year 2000 U.S. Census total population per residential connections was used for projecting population growth.

Table 2-1: South Arcadia System Historical Population	
Year	Service Area Population
1997	27,449
1998	27,441
1999	27,328
2000	27,413 <sup>(1)</sup>
2001	27,538
2002	28,069
2003	28,214
2004	28,279
2005	28,319
2006	28,364
2007	28,400
2008	28,574
2009	28,659
2010	28,663

Note:

1. Population for year 2000 from 2005 UWMP.

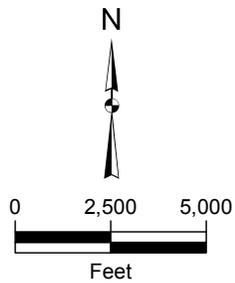


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Image Source: ESRI

**Legend**

-  South Arcadia System Boundary
-  Census Tract Boundary within Service Area
-  City Boundary



**Kennedy/Jenks Consultants**  
 Golden State Water Company  
 2010 Urban Water Management Plan

**South Arcadia System  
 Service Area with  
 Census Tract Boundary**

K/J 1070001\*00  
 August 2011  
**Figure 2-2**

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As concluded from analysis of SCAG demographic data, The South Arcadia System had an estimated population of 28,663 people in 2010 and is expected to reach 33,811 by 2035. A summary of historic and projected population, households, and employment within the South Arcadia System (based on SCAG growth rate data) is presented in Table 2-2 and illustrated in Figure 2-3. To ensure consistency between the historical and projected population data required for this plan, projections for 2015 through 2035 were adjusted relative to the 2010 population benchmark using the appropriate SCAG percentage growth rates in each category. For this reason, SCAG projections after 2000 for the Census Tracts do not correlate precisely with the estimates included in this plan.

Year	Service Area Population	Service Area Household	Service Area Employment	Data Source
2005	28,319	8,949	7,143	GSWC
2010	28,663	9,287	7,344	GSWC
2015	29,723	9,727	7,498	SCAG
2020	30,802	10,196	7,595	SCAG
2025	31,845	10,561	7,708	SCAG
2030	32,851	10,915	7,830	SCAG
2035	33,811	11,203	7,944	SCAG

Notes:

1. This table is based on the DWR Guidebook Table 2.
2. Dashed line represents division between historic and projected data.
3. Growth rates for population, household and employment are based on SCAG projections.

In summary, from 2005 to 2010 the South Arcadia population increased 1.2 percent, which is a growth rate of approximately 0.25 percent per year. By 2035, population is projected to increase by a total of 18 percent, from 28,663 in 2010 to 33,811 in 2035, which is a 0.7 percent growth rate per year. The number of households is expected to grow 21 percent during the same period, which equates to an annual household growth rate of 0.8 percent. Employment is expected to grow 8 percent during the same period, which equates to an annual employment growth rate of 0.3 percent. Areas with the highest projected growth increases are also the areas that will see the largest increase in water use. SCAG's demographic analysis does not project any planned residential developments for future years. As discussed in demographic section, new development and redevelopment projects in the South Arcadia System may contribute to future growth.

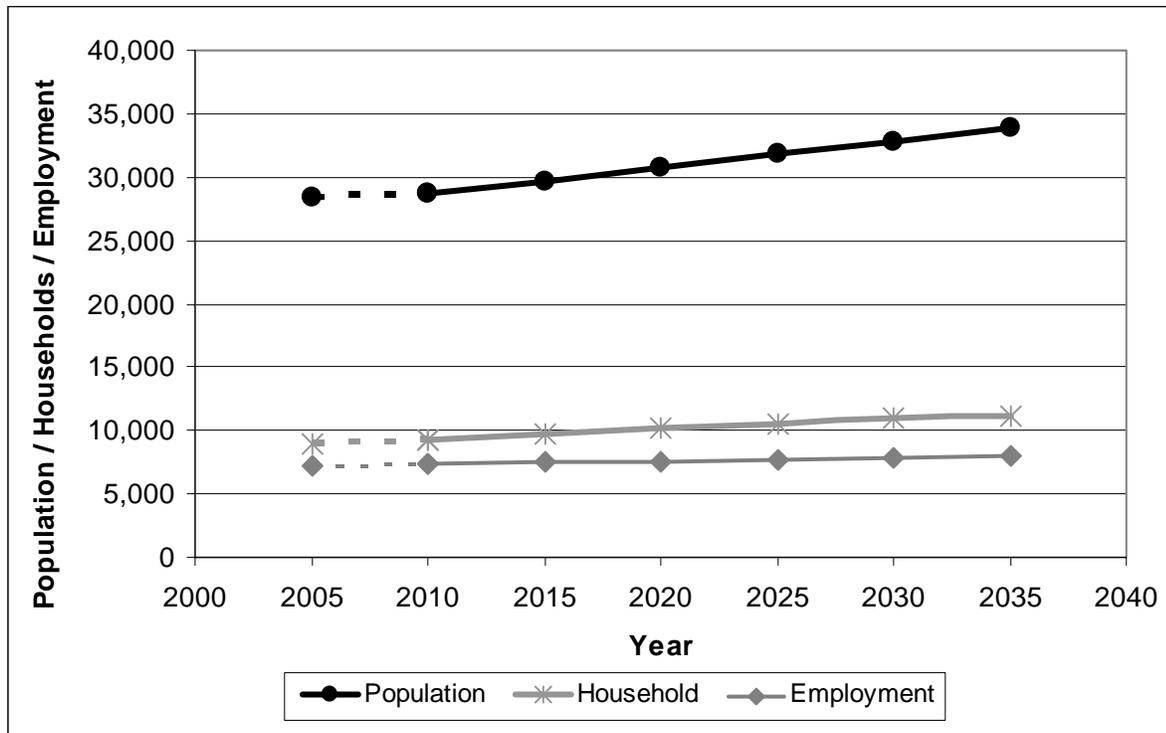


Figure 2-3: Historical and Projected Population, Household and Employment Growth within the South Arcadia System

## 2.4 Climate

The South Arcadia System has cool, humid winters and warm, dry summers. Western Regional Climate Center (WRCC) has maintained 30-year historic climate records for selected cities throughout the West. WRCC does not have a station at Arcadia or Temple City and therefore the San Gabriel station, which is 5 miles from Arcadia, was utilized for this climate data analysis.

The WRCC's website ([www.wrcc.dri.edu](http://www.wrcc.dri.edu)) maintains historical climate records for the past 70 years for the San Gabriel station. Table 2-3 presents the average climate summary based on the 70-year historical data for South Arcadia System.

In the winter, the lowest average monthly temperature is approximately 42 degrees Fahrenheit. The highest average monthly temperature reaches approximately 90 degrees Fahrenheit in the summer. Figure 2-4 presents the monthly average precipitation based on 70-year historical data. The rainy season is typically from November to March. Monthly precipitation during the winter months ranges from 2 to 4 inches. Low humidity occurs in the summer months from May to October. The moderately hot and dry weather during the summer months typically results in moderately high water demand.

Similar to the WRCC in the South Arcadia area, the California Irrigation Management Information System (CIMIS) website (<http://www.cimis.water.ca.gov>) tracks and maintains records of ETo for selected cities. ETo statistics used for this system come from the Monrovia station, which is the closest station (3 miles) to the South Arcadia System. ETo is a standard measurement of environmental parameters that affect the water use of plants. ETo is given in

inches per day, month, or year and is an estimate of the evapotranspiration from a large field of well-watered, cool-season grass that is 4- to 7-inches tall. The monthly average ETo is presented in inches in Table 2-3. As the table indicates, a greater quantity of water is evaporated during July and August in correlation to high temperatures and low humidity, which may result in high water demand.

Table 2-3: Monthly Average Climate Data Summary for South Arcadia System

Month	Standard Monthly Average ETo <sup>(2)</sup> (inches)	Average Total Rainfall (inches)	Average Temperature (degrees Fahrenheit)	
			Max	Min
January	2.2	3.70	69.1	41.8
February	2.3	3.98	70.2	43.6
March	3.9	3.00	71.7	45.9
April	4.3	1.21	75.2	49.1
May	5.3	0.28	77.7	53.5
June	5.8	0.09	82.5	57.2
July	6.9	0.02	88.8	61.1
August	6.4	0.07	89.7	61.5
September	5.1	0.35	88.1	59.4
October	3.4	0.56	82.2	53.8
November	2.5	1.64	75.3	46.4
December	2.0	2.35	69.8	41.9

Note:

Evapotranspiration (ETo) from <http://www.cimis.water.ca.gov/cimis/welcom.jsp>.

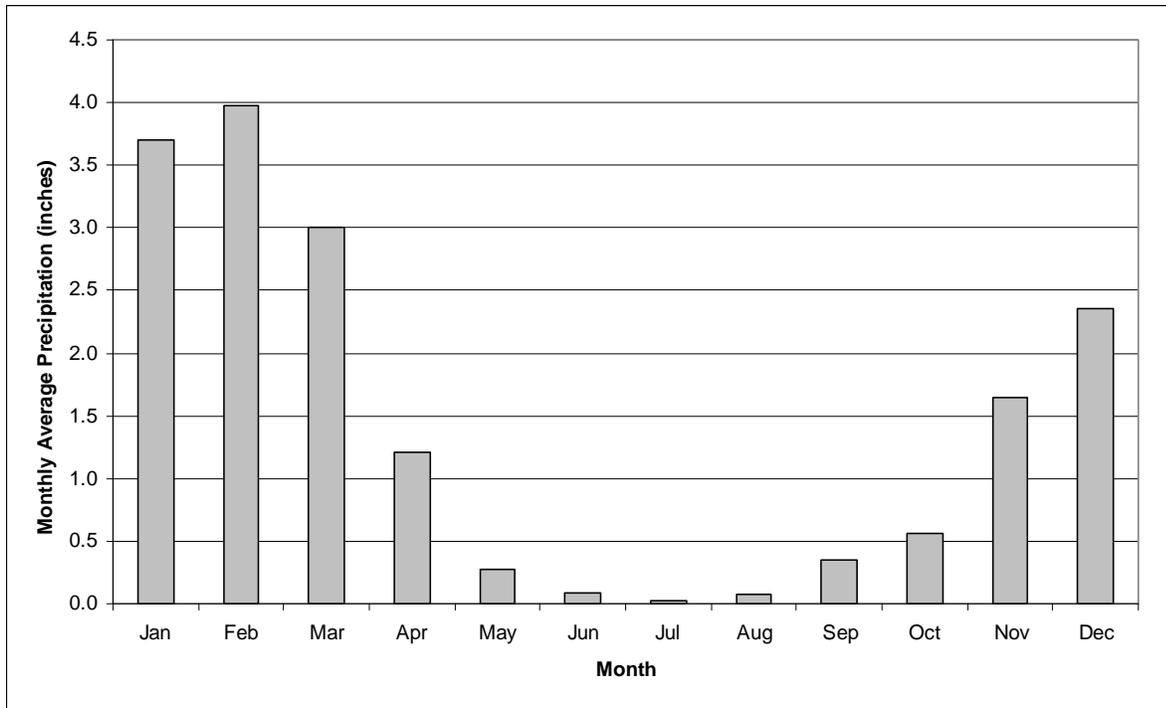


Figure 2-4: Monthly Average Precipitation at San Gabriel Station Based on 70-Year Historical Data

## Chapter 3: Water Use

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Section 10631(e) of the Act requires that an evaluation of water use be performed for the South Arcadia System. The Act states the following:

*Section 10631.*

- (e) (1) *Quantify, to the extent records are available, past and current water use, over the same five-year increments described in subdivision (a), and projected water use, identifying the uses among water-use sectors including, but not necessarily limited to, all of the following uses:*
- (A) *Single-family residential*
  - (B) *Multifamily*
  - (C) *Commercial*
  - (D) *Industrial*
  - (E) *Institutional and governmental*
  - (F) *Landscape*
  - (G) *Sales to other agencies*
  - (H) *Saline water intrusion barriers, groundwater recharge, or conjunctive use, or any combination thereof*
  - (I) *Agricultural.*
- (2) *The water-use projections shall be in the same five-year increments described in subdivision (a).*

In addition, Section 10631(k) directs urban water suppliers to provide existing and projected water-use information to wholesale agencies from which water deliveries are obtained. The Act states the following:

*Section 10631.*

- (k) *Urban water suppliers that rely upon a wholesale agency for a source of water, shall provide the wholesale agency with water-use projections from that agency for that source of water in five-year increments to 20 years or as far as data is available. The wholesale agency shall provide information to the urban water supplier for inclusion in the urban water supplier's plan that identifies and quantifies, to the extent practicable, the existing and planned sources of water as required by subdivision (b), available from the wholesale agency to the urban water supplier over the same five-year increments, and during various water-year types in accordance with subdivision (c). An urban water supplier may rely upon water supply information provided by the wholesale agency in fulfilling the plan informational requirements of subdivisions (b) and (c).*

In conjunction with projecting total water demand, each urban water retail supplier must develop urban water use targets and an interim urban water use target in accordance with SBX7-7. SBX7-7 amends the Act requiring statewide water savings of 20 percent by the year 2020. The bill sets specific methods for calculating both the baseline water usage and water use targets in gallons per capita day (gpcd).

Section 10608.20(e) states the following:

*Section 10608.20.*

(e) *An urban retail water supplier shall include in its urban water management plan required pursuant to Part 2.6 (commencing with Section 10610) due in 2010 the baseline daily per capita water use, urban water use target, interim urban water use target, and compliance daily per capita water use, along with the bases for determining those estimates, including references to supporting data.*

This chapter presents an analysis of water use data with the resulting projections for future water needs and water use targets in accordance with SBX7-7 for the South Arcadia System.

### 3.1 Historical Water Use

Historical water use data from 1994 to 2010 were analyzed in order to provide an overview of historical water usage for the South Arcadia System. Figure 3-1 shows the historical number of metered service connections and water use for the South Arcadia System from 1994 through 2010.

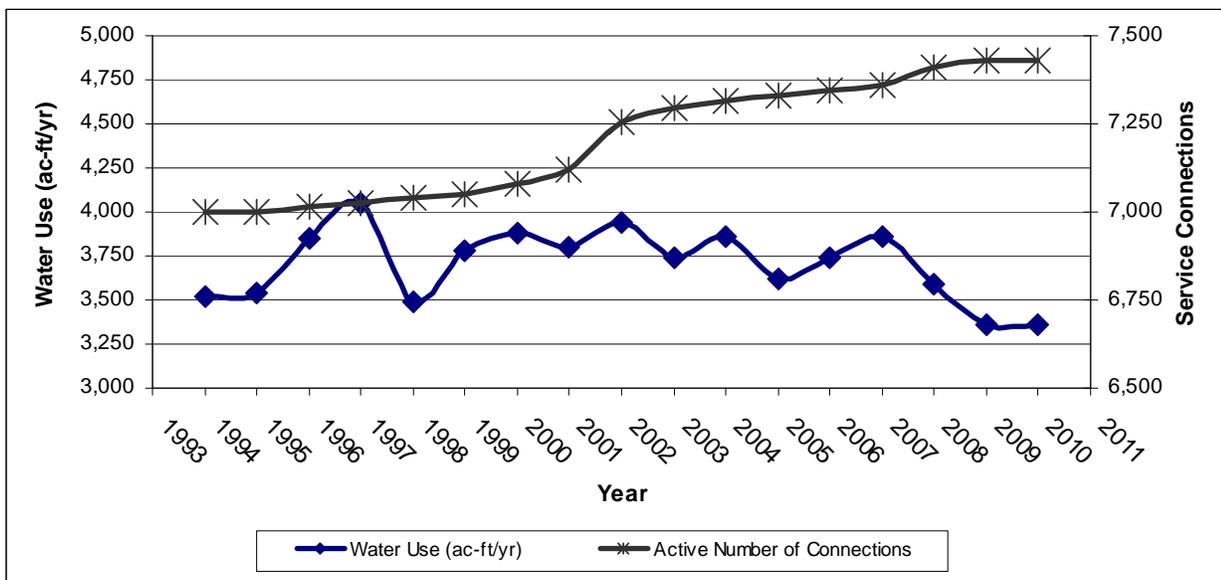


Figure 3-1: Historical Number of Metered Service Connections and Water Use

Figure 3-1 shows a decline in water use beginning in 2007 with an approximate 6 percent decline from 2008 to 2010. Review of similar data from other systems suggests the decline in water use has been widespread and is not isolated to the South Arcadia System. The recent decline in water use is not yet fully understood, but may be a result of several factors including: several years of cool summers, a statewide drought that forced mandatory water reductions and conservation in many areas, and an economic downturn that has caused many businesses to close and increased housing vacancies.

The customer billing data for the system consists of annual water sales data. The water sales data was sorted by customer type using the assigned North American Industry Classification

System (NAICS) codes. Then, the sorted water sales data were further grouped into the following seven categories: single-family, multi-family, industrial, commercial, institutional/government, landscape, and other. Table 3-1 shows the historical water use by customer type.

Table 3-1: Historical Water Use (ac-ft/yr) by Customer Type								
YEAR	Commercial	Industrial	Institutional/ Government	Landscape	Multi-Family	Other	Single-Family	Total
1994	191	62	82	26	284	1	2,869	3,515
1995	202	90	97	23	283	1	2,840	3,536
1996	235	68	130	30	333	1	3,054	3,851
1997	251	86	114	34	367	1	3,193	4,046
1998	274	66	97	24	348	0	2,678	3,487
1999	270	71	101	38	395	0	2,908	3,783
2000	310	70	107	39	415	0	2,941	3,882
2001	313	92	100	38	410	0	2,846	3,799
2002	340	66	116	40	407	0	2,970	3,939
2003	309	59	89	53	399	0	2,829	3,738
2004	322	70	103	52	385	0	2,926	3,858
2005	300	63	105	63	356	0	2,729	3,616
2006	297	66	110	98	369	0	2,803	3,743
2007	287	49	113	112	366	0	2,929	3,856
2008	278	55	101	95	337	0	2,721	3,587
2009	268	50	102	99	323	0	2,523	3,365
2010	510	41	100	99	304	0	2,310	3,364

### 3.2 Water Use Targets

This section includes documentation of the water use targets commensurate with enactment of SBX7-7. The 2010 UWMP update is the first in which such targets have been required to be documented. The projected water use for each urban retail water supplier is required to be reduced by a total of up to 20 percent by the year 2020 from a calculated baseline gpcd as required by SBX7-7. The steps described throughout this section follow the guideline methodologies developed by DWR over the past year, as documented in Section D of the *Guidebook to Assist Urban Water Suppliers to Prepare a 2010 Urban Water Management Plan*

(DWR Guidebook) issued March 2011. The three overall steps to determine the 2020 water use target are as follows:

- Step 1 – Calculate the baseline per capita water use, using the required methodologies.
- Step 2 – Calculate the per capita reduction using at least one of the four methodologies (including the minimum reduction target – which is a provision included to ensure all agencies achieve a minimum level of water savings).
- Step 3 – Select the target reduction methodology and set interim (2015) and compliance (2020) water use targets. The chosen methodology is an option of the water supplier and may be changed in 2015.

The Act now stipulates that the state shall review the progress made towards reaching the statewide water savings targets as reported in the 2015 UWMP updates. Currently, no single urban water supplier is required to conserve more than 20 percent, however there are provisions in the law that could require additional conservation after 2015 if it is found that the program is not on track to reach 20 percent statewide water savings by 2020.

### 3.2.1 Baseline Per Capita Water Use

The first step in the process of determining the water use target is calculation of the baseline per capita water use (baseline gpcd). In order to calculate the baseline gpcd, service area population within the South Arcadia System was estimated and compared to actual water use records. The following three baseline gpcd calculations identified in SBX7-7 were evaluated for the South Arcadia System:

- Baseline Method 1 – Average water use over a continuous 10-year period ending no earlier than December 31, 2004 and no later than December 31, 2010.
- Baseline Method 2 – For retailers with at least 10 percent of 2008 demand served by recycled water (either retail-or wholesale-provided), this calculation may be extended to include an additional 5 years ending no earlier than December 31, 2004 and no later than December 31, 2010.
- Baseline Method 3 – Estimate of average gross water use reported in gpcd and calculated over a continuous 5-year period ending no earlier than December 31, 2007 and no later than December 31, 2010.

The Baseline Methods 1 and 3 were evaluated using GSWC supply data for the years ending December 31, 1997 through December 31, 2010. The base water use was calculated for each year commencing with 1997 as this was the first year with production data records available. The South Arcadia System does not currently receive recycled water; therefore Baseline Method 2 is not applicable. Table 3-2 below presents the base period ranges, total water deliveries and the volume of recycled water delivered in 2008; these data are used to determine the number of years that can be included in the base period range. Also shown are the actual start and end years for the selected base period range.

Base	Parameter	Value	Units
10-year base period	2008 total water deliveries	3,966	Ac-ft
	2008 total volume of delivered recycled water	0	Ac-ft
	2008 recycled water as a percent of total deliveries	0	Percent
	Number of years in base period	10	Years
	Year beginning base period range	1997	
	Year ending base period range	2006	
5-year base period	Number of years in base period	5	Years
	Year beginning base period range	2003	
	Year ending base period range	2007	

Note:  
Table format based on DWR Guidebook Table 13.

The average annual daily per capita water use in gpcd from 1997 through 2010 is provided in Table 3-3. The gallons per day calculation includes potable water entering the distribution system.

Calendar Year	Distribution System Population	Gallons / Day	Daily per Capita Water Use, gpcd
1997	27,449	3,799,409	138
1998	27,441	3,415,878	124
1999	27,328	3,633,456	133
2000	27,413	3,578,118	131
2001	27,538	3,598,456	131
2002	28,069	3,802,061	135
2003	28,214	3,646,656	129
2004	28,279	3,723,622	132
2005	28,319	3,594,200	127
2006	28,364	3,730,499	132
2007	28,400	3,857,256	136
2008	28,574	3,540,999	124
2009	28,659	3,227,128	113
2010	28,663	3,030,873	106

Notes:  
1. Table format based on DWR Guidebook Tables 14 and 15.  
2. Usage in units of CCF/year provided by GSWC.

The 10-year averages available for GSWC to select are presented in Table 3-4; and the 5-year averages are shown in Table 3-5. The 1997-2006 10-year and 2003-2007 5-year average base daily gpcd usages of 131 gpcd were selected.

Table 3-4: 10-Year Average Base Daily Per Capita Water Use	
10-Year Period	Average Base Daily Per Capita Water Use (gpcd)
1997-2006	131
1998-2007	131
1999-2008	131
2000-2009	129
2001-2010	126

Table 3-5: 5-Year Average Base Daily Per Capita Water Use	
5-Year Period	Average Base Daily Per Capita Water Use (gpcd)
2003-2007	131
2004-2008	130
2005-2009	126
2006-2010	122

### 3.2.2 Urban Water Use Targets

Retail suppliers must identify their urban water use targets by utilizing one of four compliance methods identified in SBX7-7. The four urban water use target development methods are as follows:

- Compliance Method 1 – 80 percent of baseline gpcd water use.
- Compliance Method 2 – The sum of the following performance standards: indoor residential use (provisional standard set at 55 gpcd); plus landscape use, including dedicated and residential meters or connections equivalent to the State Model Landscape Ordinance (70 percent of reference ETo; plus 10 percent reduction in baseline commercial, industrial institutional (CII) water use by 2020.
- Compliance Method 3 – 95 percent of the applicable state hydrologic region target as identified in the 2020 Conservation Plan (DWR, 2010).
- Compliance Method 4 – A provisional method identified and developed by DWR through a public process released February 16, 2011, which aims to achieve a cumulative statewide 20 percent reduction. This method assumes water savings will be obtained through metering of unmetered water connections and achieving water conservation measures in three water

use categories: (1) indoor residential, (2) landscape, water loss and other water uses and (3) CII.

GSWC elected to evaluate Compliance Methods 1 and 3 for selecting urban water use targets for the 2010 plan. The following section provides an explanation of the target calculations and a summary of the interim and compliance water use targets.

### Compliance Method 1 Calculation Summary

The Compliance Method 1 2020 water use target was calculated by multiplying the base daily gpcd by 80 percent. A 20 percent reduction in baseline water use would require a reduction of 26 gpcd by 2020 as shown in Table 3-6. The 2015 interim target would be 118 gpcd with a water use target of 105 gpcd

Table 3-6: 2020 Water Use Target Method 1 Calculation Summary			
Description	Baseline	2015 Interim Target	2020 Compliance Target
Per Capita Water Use (gpcd)	131	118	105
Percent Reduction	N/A	10%	20%

### Compliance Method 3 Calculation Summary

The Compliance Method 3 2020 water use target was calculated by multiplying the respective hydrologic region target by 95 percent. The South Arcadia System is located in the South Coast region (Region 4), which has a hydrologic region target of 149 gpcd and a baseline water use of 180 gpcd. Ninety-five (95) percent of the Region 4 hydrologic region target results in a 2020 water use target of 142 gpcd. Since the baseline of 131 is less than 95 percent of the hydrologic regional target of 142 gpcd, a review of the minimum reduction target was triggered per the DWR methodologies to ensure minimum water conservation targets are established for the South Arcadia System.

Table 3-7 presents the results of the Method 3 calculation:

Table 3-7: 2020 Water Use Target Method 3 Calculation Summary			
Description	Baseline	2015 Interim Target	2020 Compliance Target
Per Capita Water Use (gpcd)	131	136	142
Percent Reduction	N/A	N/A	N/A

## Minimum Compliance Reduction Target

Systems with a 5-year baseline per capita water use of greater than 100 gpcd must calculate a minimum water use reduction, which the 2020 water use target cannot exceed. The minimum water use reduction compliance target is 95 percent of the 5-year rolling average base daily per capita water use (ending no earlier than December 31, 2007, and no later than December 31, 2010). By this method, the minimum 2020 water use target for the South Arcadia System is 124 gpcd, as presented in Table 3-8 below:

Description	5-Yr Average	2015 Interim Target	2020 Compliance Target
Minimum Allowable 2020 Target (gpcd)	131	128	124

### 3.2.3 Interim and Compliance Water Use Targets

The interim and compliance water use targets are provided per Section 10608.20(e) of the Act. Compliance Method 3 was selected by GSWC for the South Arcadia System, which in turn triggered the minimum reduction target since the Method 3 hydrologic region target (142 gpcd) is greater than the baseline 131 gpcd. As a result, Table 3-9 shows the 2020 SBX7-7 compliance target for the South Arcadia System is 124 gpcd and the 2015 interim water use target is 128 gpcd. The implementation plan for achieving these targets is described in Section 4.8, Recycled Water and Chapter 7, Demand Management Measures.

Baseline	2015 Interim Target	2020 Compliance Target
131	128	124

## 3.3 Projected Water Use

Growth projections for the number of service connections and volume of water use were calculated for the year 2015 through 2035, in 5-year increments. Future water demands were estimated using two different methods, a population-based approach and a historical-trend approach, in order to present a projection range reflecting the inherent uncertainty in growth trends. Additionally, demand projections are provided showing a scenario where the South Arcadia System fully meets water use target reductions by 2020 for comparison to current per capita water use trends. Detailed descriptions of how the population-based and historical-trend projections were calculated are provided below.

The range established between these two approaches is intended as supplemental information; all connection and demand estimates use the population-based growth rate projections which are higher and provide a more conservative estimate of future water use. The historical-trend projections are provided as ancillary information only.

Figure 3-2 shows the historical and projected number of metered service connections for the South Arcadia System from 1994 through 2035. Figure 3-3 shows the historical and projected water use for the South Arcadia System from 1994 until 2035.

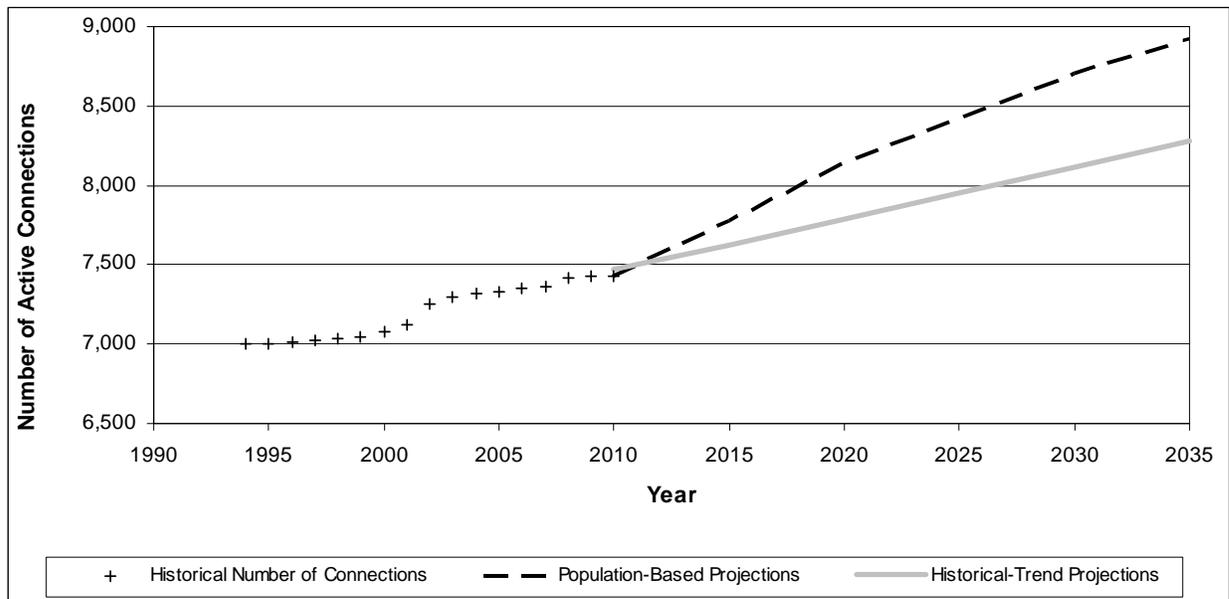


Figure 3-2: Historical and Projected Number of Metered Service Connections

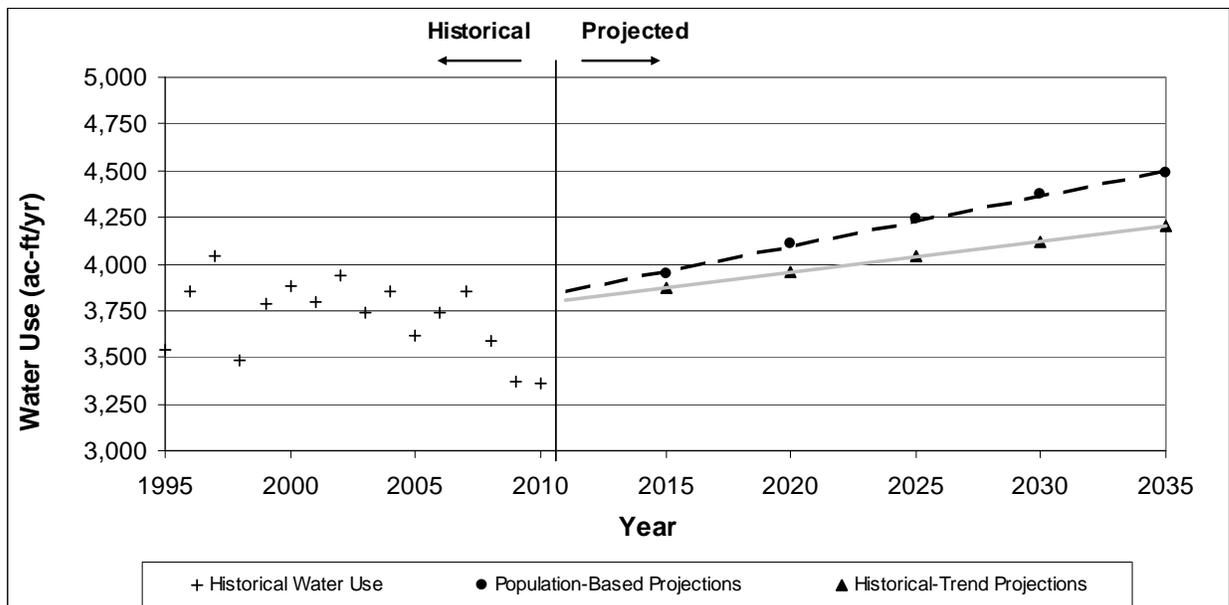


Figure 3-3: Historical Water Use and Future Water Use Projections

Historical water use records from 2000 through 2010 were analyzed to generate estimates of future water demands.

Water use factors were then developed for the projection of future water use. A water use factor was calculated for each category in order to quantify the average water used per metered connection. For a given customer type, the unit water use factor is calculated as the total water sales for the category divided by the number of active service connections for that category. The unit water use factors for each customer type were averaged over the data range from 2000 through 2010 in order to obtain a representative water use factor for determining water demand projections by customer type. Table 3-10 presents the water use factors calculated for each customer category.

	Account Category						
	Single Family	Multi-Family	Commercial	Industrial	Institutional/ Government	Landscape	Other <sup>(2)</sup>
Water Use Factor <sup>(1)</sup>	0.41	1.63	1.70	1.49	1.83	1.63	0.17

Notes:

1. Based on customer water use data for calendar years 2000-2010.
2. Other accounts for any service connections not included in any other category, including idle or inactive connections.

The population-based water use projections are based on the population and housing growth rates described in Chapter 2. SCAG household projections were used to determine the growth in single-family and multi-family service connections for the years 2015, 2020, 2025, 2030, and 2035. For example, the percent growth rate in households from the year 2010 to year 2015 was multiplied by the number of residential service connections in 2010 to obtain a projection of the number of connections in the year 2015. Similarly, employment growth projections were used to determine the growth for commercial, industrial, institutional/government, landscape, and agriculture service connections. The population-based projected water use was then calculated by multiplying the number of projected active service connections for each customer category by the corresponding customer average water use factor calculated above.

The historical-trend water use projections are based a linear projection of the historical number of metered service connections. The average growth rate established by this historical trend was applied to the number of connections in each customer category to project the future number of service connections. The historical-trend projected water use was then calculated by multiplying the number of projected active service connections for each customer category with the corresponding customer average water use factor calculated above.

Figure 3-4 shows the population based water use projections by customer type. The population-based projections of the number of service connections, and the resulting water demand, are provided in Table 3-11.

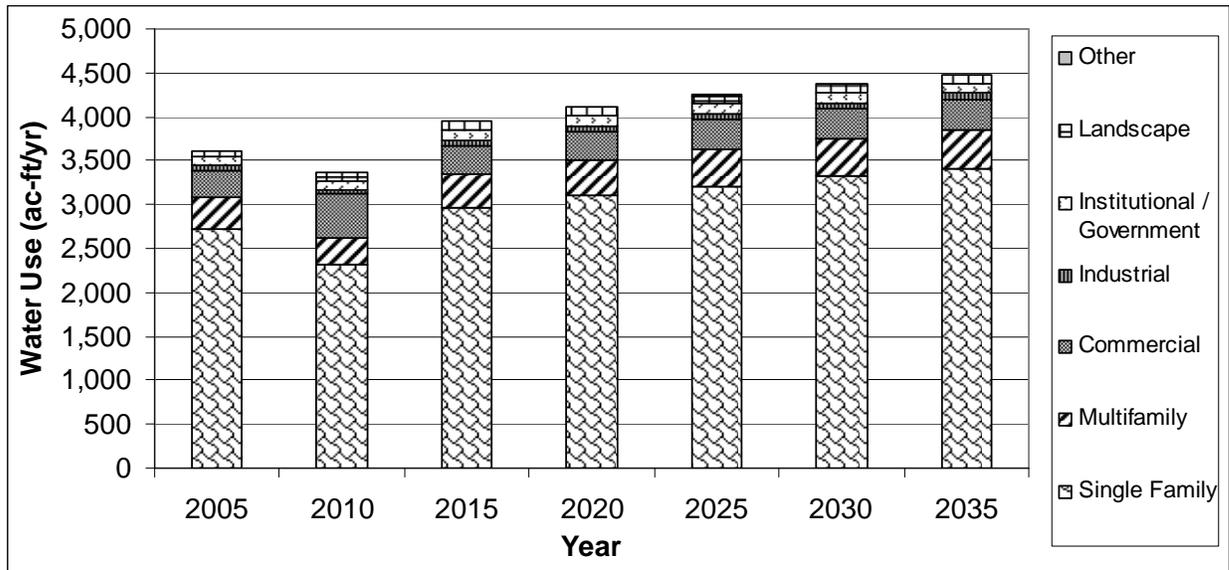


Figure 3-4: Projected Water Use by Customer Type

**Table 3-11: Projections of the Number of Metered Service Connections and Water Use for the South Arcadia System**

Year	Projection Type	Accounts by Type							
		Single-Family	Multi-family	Commercial	Industrial	Institutional/ Government	Landscape	Other <sup>(3)</sup>	Total
2005 <sup>(2)</sup>	No. of Accounts	6,771	227	186	42	59	43	0	7,328
	Water Use (ac-ft)	2,729	356	300	63	105	63	0	3,616
2010	No. of Accounts	6,859	224	190	42	59	57	1	7,432
	Water Use (ac-ft)	2,310	304	510	41	100	99	0.09	3,364
2015	No. of Accounts	7,185	235	195	43	61	59	2	7,780
	Water Use (ac-ft)	2,958	383	332	64	111	96	0.35	3,944
2020	No. of Accounts	7,531	246	197	44	62	59	2	8,141
	Water Use (ac-ft)	3,101	401	335	65	113	96	0.35	4,111
2025	No. of Accounts	7,800	255	200	45	62	60	2	8,424
	Water Use (ac-ft)	3,211	415	340	67	113	98	0.35	4,244
2030	No. of Accounts	8,062	264	203	45	63	61	2	8,700
	Water Use (ac-ft)	3,319	430	345	67	115	99	0.35	4,375
2035	No. of Accounts	8,275	271	206	46	64	62	2	8,926
	Water Use (ac-ft)	3,406	441	351	68	117	101	0.35	4,484

Notes:

1. This table is based on the DWR Guidebook Tables 3 through 7.
2. Based on calendar year.
3. Other accounts for any service connections not included in any other category, including idle or inactive connections.
4. All connections are metered.

### 3.4 Sales to Other Agencies

There are no anticipated sales to other agencies for the South Arcadia System; therefore, Table 3-12 has intentionally been left blank.

Table 3-12: Sales to Other Agencies in ac-ft/yr							
Water Distributed	2005 <sup>(2)</sup>	2010	2015	2020	2025	2030	2035
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes:

1. This table is based on the DWR Guidebook Table 9.
2. Based on calendar year.

### 3.5 Other Water Uses and System Losses

In order to estimate total water demand, other water uses, as well as any water lost during conveyance, must be added to the customer demand. California regulation requires water suppliers to quantify any additional water uses not included as a part of water use by customer type. There are no other water uses in addition to those already reported in the South Arcadia System.

System losses must be incorporated when projecting total water demand. System losses (also known as non-revenue water) are defined as the difference between annual water production and annual sales. Included are system losses due to leaks, reservoir overflows, or inaccurate meters, and other water used in operations such as system flushing and filter backwashing. GSWC does not tabulate system losses separately from other water uses; such as operations. In the South Arcadia System, from 2000 through 2010, system water losses have averaged 7.4 percent of the total production; therefore, this rate was incorporated into water demand projections. Table 3-13 provides a summary of projected system losses in the South Arcadia System.

Table 3-13: Additional Water Uses and Losses in ac-ft/yr							
Water-Use Type	2005 <sup>(2)</sup>	2010	2015	2020	2025	2030	2035
Other Water Uses	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Unaccounted-for System Losses <sup>(3)</sup>	410	31	291	303	313	323	331
<b>Total</b>	410	31	291	303	313	323	331

Notes:

1. This table is based on the DWR Guidebook Table 10.
2. Based on calendar year.
3. Includes system losses due to leaks, reservoir overflows, and inaccurate meters, as well as water used in operations.

### 3.6 Total Water Demand

As described above, other water uses, as well as any water lost during conveyance, must be added to the customer demand in order to project total water demand for the South Arcadia System. Although there are no other water uses contributing to the total water demand in the South Arcadia System, other water uses and system water losses must be incorporated into the total water demand. Table 3-14 summarizes the projections of water sales, other water uses and system losses, and total water demand through the year 2035.

The projected water sales and system losses were added to estimate the total baseline water demand shown in Table 3-14. The baseline demand projections below do not include water use reductions due to additional implementation of future DMMs or other conservation activities. Baseline demands are used for supply reliability evaluation purposes throughout this UWMP for estimates of water supplies that may be required to meet system demands for the next 25 years. Figure 3-5 shows the projected total water demand through 2035.

Projected water demands assuming SBX7-7 compliance are also provided in Table 3-14 for reference purposes; assuming full compliance with the SBX7-7 interim and 2020 water use reduction targets. SBX7-7 compliance water demands were calculated by multiplying the projected population by the applicable water use target. Future water use that is exempt from SBX7-7, such as industrial process water or direct reuse recycled water is not included in this projection..

Table 3-14: Projected Total Water Demand and SBX7-7 Compliance Projections in ac-ft/yr					
Year <sup>(2)</sup>	Projected Water Sales	Other Water Uses and System Losses	Total Baseline Water Demand	SBX7-7 Compliance Projections	
				Water Savings	Total Water Demand with Savings
2005	3,616	410	4,026	0	N/A
2010	3,364	31	3,395	0	N/A
2015	3,944	291	4,235	0	4,262
2020	4,111	303	4,414	136	4,278
2025	4,244	313	4,557	134	4,423
2030	4,375	323	4,698	135	4,563
2035	4,484	331	4,815	119	4,696

Notes:

1. This table is based on the DWR Guidebook Table 11.
2. Based on calendar year.

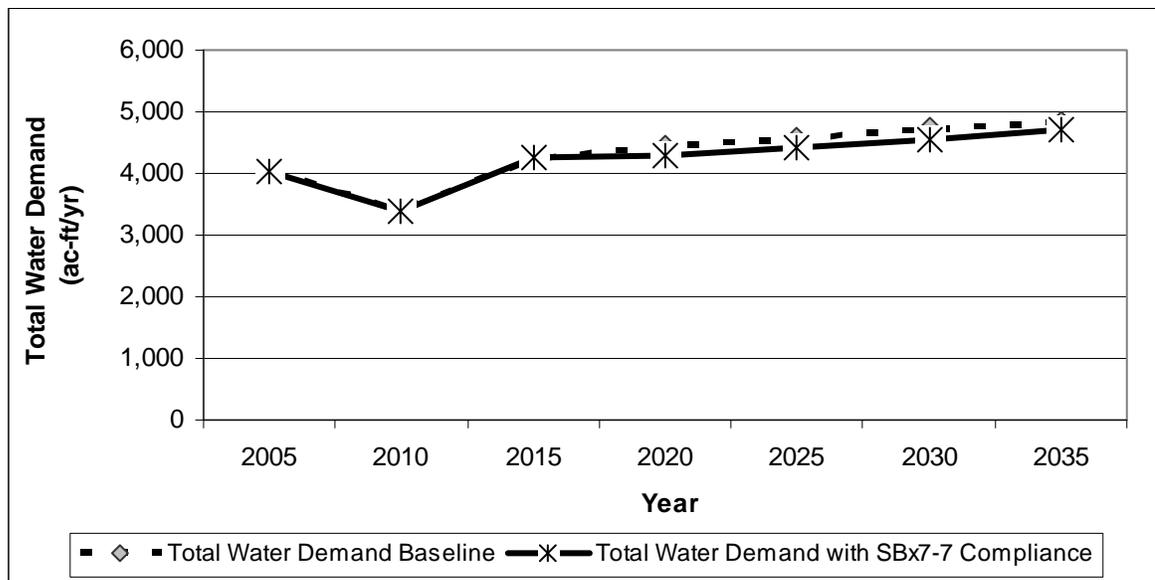


Figure 3-5: Total Water Demand

### 3.7 Data Provided to Wholesale Agency

There is no wholesale water supplier for the South Arcadia System; therefore, Table 3-15 has been left blank.

Wholesaler	Contracted Volume	2010	2015	2020	2025	2030	2035
N/A	N/A	0	0	0	0	0	0

Note:

This table is based on the DWR Guidebook Table 12.

### 3.8 Disadvantaged Community Water Use Projections

*Section 10631.1 (a). Include projected water use for single-family and multi-family residential housing needed for lower income households, as identified in the housing element of any city, county, or city and county in the service area of the supplier.*

Senate Bill 1087 requires that water use projections of a UWMP include the projected water use for single-family and multi-family residential housing for lower income households as identified in the housing element of any city, county, or city and county in the service area of the supplier.

Housing elements rely on the Regional Housing Needs Allocation (RHNA) generated by the State Department of Housing and Community Development (HCD) to allocate the regional need for housing to the regional Council of Governments (COG) (or a HCD for cities and counties not covered by a COG) for incorporation into housing element updates. Before the housing element is due, the HCD determines the total regional housing need for the next planning period for each

region in the state and allocates that need. The COGs then allocate to each local jurisdiction its “fair share” of the RHNA, broken down by income categories; very low, low, moderate, and above moderate, over the housing element’s planning period.

The County of Los Angeles last updated its housing element in 2006. A lower income house is defined as 80 percent median income, adjusted for family size. The County’s housing element identifies the target number of low-income households in the County from 2006 to 2013 as 15.7 percent and very low-income households as 24.7 percent. However, it is unknown what percentage of the low-income and very low-income households are within GSWC’s South Arcadia service area. For this reason, it is not possible to project water use for lower income households separately from overall residential demand. However, to remain consistent with the intent of the SB-1087 legislation and to comply with the UWMP Act, an effort has been made to identify those water use projections for future single and multi-family households based on the aggregate percentage of both the low-income and very low-income categories. 40 percent was used to estimate the lower income demand projections as shown in Table 3-16 below.

	2015	2020	2025	2030	2035
Single-Family Residence	262	319	364	407	443
Multi-Family Residence	32	39	45	51	56
Total	294	358	409	458	498

Note:

This table is based on the DWR Guidebook Table 8.

GSWC will not deny or conditionally approve water services, or reduce the amount of services applied for by a proposed development that includes housing units affordable to lower income households unless one of the following occurs:

- GSWC specifically finds that it does not have sufficient water supply.
- GSWC is subject to a compliance order issued by the State Department of Public Health that prohibits new water connections.
- The applicant has failed to agree to reasonable terms and conditions relating to the provision of services.

## Chapter 4: Water Supply

A detailed evaluation of water supply is required by the Act. Sections 10631 (b) through (d) and (h) of the Act state the following:

*Section 10631.*

- (b) *Identify and quantify, to the extent practicable, the existing and planned sources of water available to the supplier over the same five-year increments described in subdivision (a). If groundwater is identified as an existing or planned source of water available to the supplier, all of the following information shall be included in the plan:*
- (1) *A copy of any groundwater management plan adopted by the urban water supplier, including plans adopted pursuant to Part 2.75 (commencing with Section 10750), or any other specific authorization for groundwater management.*
  - (2) *A description of any groundwater basin or basins from which the urban water supplier pumps groundwater. For those basins for which a court or the board has adjudicated the rights to pump groundwater, a copy of the order or decree adopted by the court or the board and a description of the amount of groundwater the urban water supplier has the legal right to pump under the order or decree. For basins that have not been adjudicated, information as to whether the department has identified the basin or basins as overdrafted or has projected that the basin will become overdrafted if present management conditions continue, in the most current official departmental bulletin that characterizes the condition of the groundwater basin, and a detailed description of the efforts being undertaken by the urban water supplier to eliminate the long-term overdraft condition.*
  - (3) *A detailed description and analysis of the location, amount, and sufficiency of groundwater pumped by the urban water supplier for the past five years. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.*
  - (4) *A detailed description and analysis of the amount and location of groundwater that is projected to be pumped by the urban water supplier. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.*
- (c) (1) *Describe the reliability of the water supply and vulnerability to seasonal or climatic shortage, to the extent practicable, and provide data for each of the following:*
- (A) *An average water year.*
  - (B) *A single dry water year.*
  - (C) *Multiple dry water years.*
- (2) *For any water source that may not be available at a consistent level of use, given specific legal, environmental, water quality, or climatic factors, describe plans to supplement or replace that source with alternative sources or water demand management measures, to the extent practicable.*
- (d) *Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis.*
- (h) *Include a description of all water supply projects and water supply programs that may be undertaken by the urban water supplier to meet the total projected water use as established pursuant to subdivision (a) of Section 10635. The urban water supplier shall include a detailed description of expected future projects and programs, other than the demand management programs identified pursuant to paragraph (1) of subdivision (f), that the urban water supplier may implement to increase the amount of the water supply available to the urban water supplier in average, single dry, and multiple dry water years. The description shall identify specific projects and include a description of the increase in water supply that is expected to be available from each project. The description shall include an estimate with regard to the implementation timeline for each project or program.*

This chapter addresses the water supply sources of the South Arcadia System. The following chapter provides details in response to those requirements of this portion of the Act.

## 4.1 Water Sources

The Golden State Water Company (GSWC) obtains nearly all of its water supply for the South Arcadia System from local groundwater. GSWC operates several groundwater wells within the Main San Gabriel Basin (Basin). The amount of groundwater pumped from the basin is regulated by the court appointed Watermaster. As a result of a 1973 court decision, GSWC has pumping rights to 2.92 percent of the operating safe yield (OSY) of the Main San Gabriel Basin (see Section 4.3.1). GSWC uses this groundwater allocation from the Basin to supply water to both the South San Gabriel and South Arcadia Systems.

As described in Section 4.3.1, below, the groundwater rights for the South Arcadia System and the South San Gabriel System are shared and are not preferential to either system. GSWC manages the allocation between the two systems. South Arcadia does not have any water supply from purchased sources, and therefore is 100 percent reliant upon groundwater supply from the Main San Gabriel Basin. If demands increase beyond the allocated OSY shared water right for the South Arcadia and South San Gabriel systems, GSWC can either obtain additional water rights or purchase replenishment water. Water rights may be obtained by purchasing or leasing existing rights from other producers in the basin. Groundwater pumping in excess of the OSY and any additional purchased or leased rights is permitted when replaced in-kind with available replenishment water that is purchased from the Basin's responsible agency. The Upper San Gabriel Valley Municipal Water District (Upper District) is the responsible agency for the portion of the Basin from which groundwater is pumped for the South Arcadia and South San Gabriel Systems.

Table 4-1 summarizes the current and planned water supplies available to GSWC for the South Arcadia System to meet projected demands and provides the approximate amount of water supplied by each source in acre-feet per year. The availability of water from each source is estimated through the year 2035. GSWC's water supply is projected to increase by about 42 percent from 2010 to 2035 to meet the associated projected water demands, with all of this demand being met by groundwater supply. Water demand projections are documented in Chapter 3.

Table 4-1: Current and Planned Water Supplies for the South Arcadia System in ac-ft/yr

Source	2010 <sup>(2)</sup>	2015	2020	2025	2030	2035
Purchased water	0	0	0	0	0	0
Groundwater <sup>(1)</sup>	3,395	4,235	4,414	4,557	4,698	4,815
Recycled water	0	0	0	0	0	0
Total	3,395	4,235	4,414	4,557	4,698	4,815

Notes:

1. Based on projected use in the Main San Gabriel Groundwater Basin. 2015-2035 groundwater projections assume a long-term average OSY of 190,000 ac-ft.
2. 2010 water supplies are based on actual production records.
3. Table format based on DWR Guidebook Table 16.

This water supply summary is based on groundwater management by GSWC between the South San Gabriel and South Arcadia Systems, and an analysis of local groundwater supplies. Groundwater is expected to make up 100 percent of the South Arcadia System's water supply.

Although South Arcadia has the ability to purchase water beyond that available from local groundwater, GSWC prefers to limit the use of other sources (see Section 4.2). There is no recycled water supply planned for this system. The potential for future recycled water use is described in Section 4.8. Details of the water supply are presented in the following sections, while water supply reliability is discussed in Chapter 6.

## 4.2 Purchased Water

The South Arcadia System does have the ability to purchase water from the City of Arcadia through the Short Street interconnection with a capacity of 250 gallons per minute (gpm). In 2009, GSWC purchased a total of only 2 acre-feet through this connection, and in the years since 1999, has purchased an average of 18 ac-ft/yr from the City of Arcadia. This source of water typically makes up less than one percent of the total supply for the South Arcadia System, and GSWC plans to further limit the purchase of water in the future. However, the Short Street connection, along with the following three connections to adjacent systems, will be maintained for emergency use only:

- Longden connection with a capacity of 1,250 gpm.
- City of El Monte connection with a capacity of 1,000 gpm.
- California-American Water Company connection with a capacity of 500 gpm.

One reservoir with a volume of 1.0 million gallons serves as storage in the South Arcadia System.

## 4.3 Groundwater

This section provides a brief description of the Main San Gabriel Basin, including the groundwater supplies available to GSWC. More detailed information can be found in the references cited below.

Groundwater supplying GSWC's South Arcadia System is pumped from a total of seven active groundwater wells in the Main San Gabriel Basin, which has a surface area of approximately 154,000 acres (241 square miles). These wells have a current total normal year active capacity of 12,501 ac-ft/yr. Between 1999 and 2010, the actual production averaged 3,995 ac-ft/yr.

The Main San Gabriel Basin is bounded by the Raymond fault and the contact between Quaternary sediments and consolidated basement rocks of the San Gabriel Mountains on the north, by the Repetto, Merced, and Puente Hills on the south and west, and by the Chino and San Jose faults on the east.

Water-bearing units in the Main San Gabriel Basin are recent alluvium and the San Pedro Formation. The alluvium consists of Pleistocene and Holocene deposits with a total thickness ranging from 40 feet to over 4,000 feet. The Holocene alluvium consists of alluvial fans and stream deposits approximately 100 feet in thickness (DWR, 2004). The Pleistocene alluvium is composed of unsorted, angular to sub-rounded sedimentary deposits ranging from gravels near the San Gabriel Mountains to sands and silts in the central and western parts of the basin. These Pleistocene alluvium deposits constitute the most of the productive water-bearing units in the basin (DWR, 2004). The Pleistocene alluvium varies in thickness from 40 feet in the north to

4,100 feet in the central portion of the basin (DWR, 2004). The San Pedro formation also bears fresh water and consists of interbedded marine sand, gravel, and silt. The maximum thickness of the San Pedro formation is approximate 2,000 feet (DWR, 2004)

Estimates of the hydraulic conductivities in the Basin range from 270 feet per day (ft/d) for gravel to 0.001 ft/d for clay (CH2M HILL, 1986). Sand and gravel units were estimated to have a hydraulic conductivity of 135 ft/d and sandy clay estimated at 10 ft/d (CH2M HILL, 1986). These values of hydraulic conductivities are an estimate based on aquifer test and boring log descriptions of the sediments.

Groundwater levels have historically fluctuated in the basin. Since 1993, the water levels for the Baldwin Park Key Well have varied about from an elevation high of 272 feet to a historic low in 2009 of 189.2 feet (Upper District, 2010). The Watermaster reported in 2010 that the groundwater levels in the Baldwin Park Key Well have been just above the lower value of the operating range of storage for the groundwater basin at 204.2 feet as of June 26, 2010. One foot of elevation change of the Key Well is roughly equal to a change in water storage of 8,000 ac-ft. The total storage capacity of the San Gabriel Basin is estimated to be about 8.6 million ac-ft (Main San Gabriel Basin Watermaster, 2011). The historic high groundwater elevation was measured in 1916 at 329.1 feet at which time the Main San Gabriel Basin storage was estimated at 8.7 million ac-ft. The historic low groundwater elevation was 189.2 feet in 2009 when the Main San Gabriel Basin storage was estimated at 7.6 million ac-ft.

#### 4.3.1 Main San Gabriel Basin Adjudication

In 1973, the rights to use groundwater from the San Gabriel Valley Basin were adjudicated in the case *Upper San Gabriel Valley Municipal Water District vs. City of Alhambra, et al* (Superior Court, County of Los Angeles, Case No. 924128, Appendix F). During the adjudication process, the safe yield of the basin was studied to help assign prescriptive pumping rights. The total prescriptive pumping right for the Main San Gabriel Basin was established at 197,634 ac-ft. This prescriptive right was used during the adjudication to determine the baseline share of pumping rights for each water producer in the basin.

The Main San Gabriel Basin Watermaster regulates groundwater production within the basin. Each year the Watermaster determines the operating safe yield (OSY) for the basin, which may be larger or smaller than the total prescriptive right of 197,634. The Watermaster performs hydrologic balance calculations to assess the groundwater conditions in the Main San Gabriel Basin. The hydrologic assessments are based on an evaluation of groundwater levels in the Basin, determination of the previous year's recharge and extraction activities, estimates of the current year's recharges and extractions, water quality, historic and current rainfall data, and the availability of imported water. The OSY has historically fluctuated to account for wet or dry conditions in the basin and to accommodate the availability of imported water that may be needed to supplement local water supplies and recharge of the basin.

The OSY is the amount of water that can be pumped from the basin before the Watermaster imposes a "Replacement Water Assessment" to replenish the basin with imported water. Each water right holder is entitled to a set percentage of the OSY annually. Because the OSY is recalculated each fiscal year (FY), the actual amount of water GSWC has rights to pump without paying a replenishment assessment fee can fluctuate annually. Since the basin was adjudicated in 1973, the OSY has ranged from a low of 140,000 (FY 1991 – 1992) to a high of 240,000 ac-ft (FY's 2005 – 2007).

Water pumped in excess of the OSY is managed by Upper District, the applicable responsible agency, which is determined by geographic and political boundaries under terms of the Judgment. Upper District is responsible for ensuring that the basin is not overpumped in any given year, i.e. that total groundwater production equals OSY water rights plus replenishment water. Replenishment water must be available to allow pumping in excess of the OSY. For the past 2 years, replenishment water was not available when the producers over pumped in the basin. The responsible parties have implemented cyclic storage agreements to provide replenishment water supplies during periods of reduced imported water availability. Additional descriptions of groundwater supply reliability and cyclic storage are provided in Chapter 6.

GSWC has pumping rights to 2.92105 percent of the OSY for the Main San Gabriel Basin, which is shared between the South San Gabriel and South Arcadia Systems. GSWC’s total pumping right for these two Systems has varied from 4,089 ac-ft/yr to 6,718 ac-ft/yr as shown in Table 4-2. In May 2011, the Watermaster established an OSY of 210,000 ac-ft/yr for FY 2011-12 which means that GSWC’s current pumping right is 6,134 ac-ft/yr. However, since the OSY is set annually by the Watermaster, it was conservatively assumed that the long-term average OSY will be equal to 190,000 ac-ft/yr for a pumping right of 5,550 ac-ft/yr. This total could be augmented by purchasing or leasing water rights from other right-holders in the Basin. Furthermore, the adjudication for the Main San Gabriel Basin permits producers to carry over water rights from previous years and to pump more than their share of the OSY, provided they pay a replenishment fee for all excess production. There are also pending amendments to the Judgment that would enhance groundwater reliability in the basin. The Watermaster has determined that its 1973 Judgment may require changes to reflect the current conditions and allow the Watermaster more flexibility in securing necessary supplemental supplies. The Watermaster expects proposed changes to be finalized and submitted to the Los Angeles Superior Court for approval after FY 2010-11 (Watermaster 2010).. The historic low, high, and current operating safe yield for the Main San Gabriel Basin are shown in Table 4-2

Condition/Time Period	Operating Safe Yield (ac-ft/yr)	GSWC Pumping Rights <sup>(1)</sup> (ac-ft/yr)
Historic Low OSY (FY 1991 – 1992)	140,000	4,089
Historic High OSY (FY 2005 – 2007)	240,000	7,011
Current OSY (FY 2011 – 2012)	210,000	6,134

Notes:

1. GSWC pumping right is equal to 2.92105 percent of the OSY for the South Arcadia and South San Gabriel Systems.
2. OSY is reassessed on an annual basis.

GSWC’s South Arcadia System currently operates 7 wells in the Main San Gabriel Basin; they are listed in Table 4-3. Well production capacity is provided in terms of instantaneous capacity in gpm and annual yield in ac-ft/yr. The South Arcadia System has a total normal year active well capacity of 7,750 gpm (12,501 ac-ft/yr).

Table 4-3: Well Name and Capacity		
Well Name	Current Well Capacity (gpm) <sup>(1)</sup>	Current Well Capacity (ac-ft/yr)
Encinita No. 1	1,100	1,774
Encinita No. 2	1,000	1,613
Encinita No. 3	900	1,452
Farna No. 1	1,400	2,258
Farna No. 2	1,050	1,694
Graydon No. 1	0	0
Graydon No. 2	0	0
Jeffries No. 3	0	0
Jeffries No. 4	1,300	2,097
Persimmon No. 1	1,000	1,613
<b>Total Capacity</b>	<b>7,750</b>	<b>12,501</b>

Note:

1. Estimated annual average current well production capacity is provided; actual and design instantaneous pumping capacity may be greater for each well.

Table 4-4 shows the pumping history for the South Arcadia System from calendar years 2005 through 2010. Nearly all of the water supply for the South Arcadia System was produced from groundwater, with a small supplement purchased from the City of Arcadia.

Table 4-4: Groundwater Pumping History for South Arcadia System (2005 to 2010) in ac-ft							
Basin Name	Metered or Unmetered	2005	2006	2007	2008	2009	2010
Main San Gabriel	Metered	4,012	4,128	4,297	3,920	3,625	3,395
Percent of Total Water Supply		100%	99%	99%	99%	100%	100%

Notes:

1. Table format based on DWR Guidebook Table 18.
2. Years are reported in calendar years (January 1 – December 31).

The projected groundwater pumping volumes for the South Arcadia System are summarized in Table 4-5. If needed, the South Arcadia System's share of the OSY could be augmented through the purchase or lease of pumping rights from other producers in the Main San Gabriel Basin. The adjudication for the Main San Gabriel Basin also permits a producer to pump more than its share of the OSY if replenishment water is available and if the producer pays a replenishment fee for all production in excess of the allocated rights.

Basin Name	2010	2015	2020	2025	2030	2035
Main San Gabriel	3,395	4,235	4,414	4,557	4,698	4,815
Percent of Total Water Supply	100%	100%	100%	100%	100%	100%

Notes:

1. Table format based on DWR Guidebook Table 19.
2. Years are reported in calendar years (January 1 – December 31).

#### 4.4 Transfers and Exchanges

GSWC has historically transferred groundwater rights for its holdings in the Main San Gabriel Basin between the San Dimas District and the San Gabriel District. Additionally, if GSWC's actual need for groundwater exceeds its share of the OSY, GSWC can lease available groundwater rights from other producers in the basin to increase their allowed pumping. GSWC has the ability to obtain leases for additional groundwater in the Main San Gabriel Basin annually, on an as-needed basis, following an evaluation of the economic benefits to their rate payers.

There are no specifically identified transfer and/or exchange opportunities in the South Arcadia System at this time; therefore, Table 4-6 has been left blank.

Source Transfer Agency	Transfer or Exchange	Short Term	Proposed Quantities	Long-Term	Proposed Quantities
GSWC	N/A	N/A	N/A	N/A	N/A

Note:

Table format based on DWR Guidebook Table 20.

#### 4.5 Planned Water Supply Projects and Programs

There are no planned water supply projects and programs in the South Arcadia System at this time; therefore, Table 4-7 has been intentionally left blank. GSWC will construct new wells, pipelines, and treatment systems as a part of its ongoing Capital Investment Program to maintain its supply and meet distribution system requirements as needed.

GSWC participates with the Upper District in a variety of programs intended to enhance regional water supply. These projects include surface water treatment plant improvements, groundwater recharge studies, recycled water, and groundwater cleanup. The Upper District is currently evaluating projects that would benefit the South Arcadia System, including the expanded use of recycled water for groundwater replenishment. See the Upper District's 2010 UWMP for details.

Table 4-7: Future Water Supply Projects in ac-ft

Project Name	Normal Year	Single-Dry Year	Multiple-Dry Years		
			Year 1	Year 2	Year 3
N/A	N/A	N/A	N/A	N/A	N/A

Note:

This table is based on the DWR Guidebook Table 26.

#### 4.6 Wholesale Agency Supply Data

There is no wholesale water supply for the South Arcadia System; therefore, Table 4-8, Table 4-9 and Table 4-10 have been left blank.

Table 4-8: Existing and Planned Wholesale Water Sources in ac-ft/yr

Wholesaler Sources	Contracted Volume	2010	2015	2020	2025	2030	2035
N/A		N/A	N/A	N/A	N/A	N/A	N/A

Note:

This table is based on DWR Guidebook Table 17.

Table 4-9: Reliability of Wholesale Supply for Year 2035 in ac-ft/yr

Wholesaler	Average / Normal Water Year Supply	Single-Dry	Multiple-Dry Water Years		
			Year 1	Year 2	Year 3
N/A	0	0	0	0	0
Percent Normal	0	0	0	0	0

Note:

Table format based on DWR Guidebook Table 31.

Table 4-10: Factors Affecting Wholesale Supply

Name of Supply	Legal	Environmental	Water Quality	Climatic
N/A	N/A	N/A	N/A	N/A

Note:

Table format based on DWR Guidebook Table 29.

## 4.7 Desalination

This section presents a discussion of opportunities to use desalinated water as a supplemental future water supply source for the South Arcadia System. Section 10631(i) of the Act requires an evaluation of desalination opportunities within the South Arcadia System. The Act states the following:

*Section 10631*

(i) *Describe the opportunities for development of desalinated water, including, but not limited to, ocean water, brackish water, and groundwater, as a long-term supply.*

GSWC obtains the majority of its water supply for the South Arcadia System from local groundwater which has not been impacted by salinity issues and does not require desalination. There are currently no opportunities for using desalinated water as a source of water supply for the South Arcadia System by GSWC or the groundwater basin responsible agency, Upper District. Therefore, Table 4-11 has been intentionally left blank.

Upper District has concluded that due to the high quality (low TDS concentration) groundwater, Upper District and its member agencies do not need to investigate the use of desalination to develop or reestablish a new long-term supply (Upper District, 2011). Likewise, while it is currently economically impractical and infeasible for GSWC to participate in a desalination program that directly benefits the South Arcadia System, GSWC would be open to considering partnering opportunities with other water suppliers in the region who may participate in a desalination project that would provide a direct or indirect benefit through mechanisms such as groundwater replenishment.

Table 4-11: Summary of Opportunities for Water Desalination

Source of Water	Yield (ac-ft/yr)	Start Date	Type of Use	Other
None	N/A	N/A	N/A	N/A

## 4.8 Recycled Water

This section covers Section 10633 of the Act which details the requirements of the Recycled Water Plan that are included in the Act. The Act states the following:

*Section 10633. The plan shall provide, to the extent available, information on recycled water and its potential for use as a water source in the service area of the urban water supplier. The preparation of the plan shall be coordinated with local water, wastewater, groundwater, and planning agencies that operate within the supplier's service area and shall include all of the following:*

- (a) *A description of the wastewater collection and treatment systems in the supplier's service area, including a quantification of the amount of wastewater collected and treated and the methods of wastewater disposal.*
- (b) *A description of the recycled water currently being used in the supplier's service area, including, but not limited to, the type, place, and quantity of use.*
- (c) *A description and quantification of the potential uses of recycled water, including, but not limited to, agricultural irrigation, landscape irrigation, wildlife habitat enhancement, wetlands, industrial reuse,*

groundwater recharge, and other appropriate uses, and a determination with regard to the technical and economic feasibility of serving those uses.

- (d) The projected use of recycled water within the supplier's service area at the end of 5, 10, 15, and 20 years, and a description of the actual use of recycled water in comparison to uses previously projected pursuant to this subdivision.
- (e) A description of actions, including financial incentives, which may be taken to encourage the use of recycled water, and the projected results of these actions in terms of acre feet of, recycled water used per year.
- (f) A plan for optimizing the use of recycled water in the supplier's service area, including actions to facilitate the installation of dual distribution systems, to promote recirculating uses, to facilitate the increased use of treated wastewater that meets recycled water standards, and to overcome any obstacles to achieving that increased use.

#### 4.8.1 Coordination

Table 4-12 summarizes the role of the agencies that participate in the development of recycled water plans that affect the South Arcadia System of the Golden State Water Company (GSWC).

**Table 4-12: Role of Participating Agencies in the Development of the Recycled Water Plan**

Participating Agencies	Role in Plan Development
Water agencies	GSWC works closely with the Los Angeles County Sanitation District (LACSD) in planning a potential recycled water distribution system and identifying potential recycled water customers. The LACSD, acting as the recycled water wholesaler, would lead the way in implementing the recycled water plan and distribution network.
Wastewater agencies	The LACSD provides a reliable supply of recycled water that meets California recycled water quality standards set forth in Title 22 of the California Code of Regulations.
Groundwater agencies	Not applicable for this System.
Planning agencies	Los Angeles County Sanitation District plays a key role in conducting data and customer assessments, as well as analyzing community and economic impacts.

#### 4.8.2 Wastewater Quantity, Quality, and Current Uses

Wastewater in the South Arcadia System is collected by gravity sewers and lift stations owned by the Cities of Arcadia, El Monte, Irwindale, Monrovia, and Temple City, in addition to the Sanitation Districts of Los Angeles County (LACSD). The wastewater is transported through trunk sewers to LACSD's San Jose Creek and Whittier Narrows Water Reclamation Plants (WRP).

The San Jose Creek WRP provides primary, secondary, and tertiary treatment for an average dry weather flow (DWF) of 100 million gallons of wastewater per day (mgd). The plant serves a largely residential population of approximately one million people. About 35 mgd of treated effluent from San Jose Creek WRP is reused at 17 different sites. The recycled water is primarily used for groundwater recharge, and agricultural and landscape irrigation. The remaining effluent (65 mgd) is discharged into the San Gabriel River (LACSD 2011).

The Whittier Narrows WRP provides primary, secondary, and tertiary treatment for an average DWF of 15 mgd. The plant serves a population of approximately 150,000 people. According to the LACSD, nearly all of the treated effluent is reused as groundwater recharge into the Rio Hondo and San Gabriel Coastal Spreading Grounds or for irrigation at an adjacent nursery. Any remaining effluent is discharged into the San Gabriel River (LACSD 2011).

Because the Whittier Narrows and San Jose Creek WRPs treat wastewater for a larger population than exists in the South Arcadia System, an estimated per capita wastewater generation factor was used to calculate the volume of wastewater generated by GSWC's customers in South Arcadia. Based on the populations served and the average wastewater treatment rates for the San Jose Creek and Whittier Narrows WRPs as detailed above, the average per capita wastewater generation factor for both of these WRPs is 100 gallons per person per day. This factor was used to estimate existing and projected volumes of wastewater collected and treated in the South Arcadia System as summarized in Table 4-13.

Because all of the effluent from Whittier Narrows and San Jose Creek WRPs is treated to meet Title 22 recycled water standards, 100 percent of the treated effluent is included in Table 4-13 as meeting such standards. However, out of the combined wastewater effluent (115 mgd) from these two treatment plants, 50 mgd (43 percent) of the treated water is actively reused throughout the region. Therefore, the assumption is that 43 percent of the treated wastewater that is collected in the South Arcadia System is recycled while the remaining 57 percent is discharged into the unlined portions of the San Gabriel River. Although the majority of the water that is discharged into the San Gabriel River will contribute to groundwater recharge through the riverbed, LACSD does not consider this an active recycled water use. Table 4-14 lists the estimates of existing and projected volumes of treated effluent collected from the South Arcadia System that will be discharged into the San Gabriel River.

Although much of the wastewater generated in the South Arcadia System is recycled, all of the reuse sites are elsewhere in the LACSD system, and there are no existing uses of recycled water within the boundaries of the South Arcadia service area. Therefore, Table 4-15 has intentionally been left blank.

Table 4-13: Estimates of Existing and Projected Wastewater Collection and Treatment in ac-ft/yr (mgd) for the South Arcadia System							
	2005 <sup>(3)</sup>	2010 <sup>(3)</sup>	2015	2020	2025	2030	2035
Projected population in service area <sup>(2)</sup>	28,319	28,663	29,723	30,802	31,845	32,851	33,811
Wastewater collected and treated in service area <sup>(4)</sup>	3,172 (2.83 mgd)	3,211 (2.87 mgd)	3,329 (2.97 mgd)	3,450 (3.08 mgd)	3,567 (3.18 mgd)	3,680 (3.29 mgd)	3,787 (3.38 mgd)
Quantity that meets recycled water standard	3,172 (2.83 mgd)	3,211 (2.87 mgd)	3,329 (2.97 mgd)	3,450 (3.08 mgd)	3,567 (3.18 mgd)	3,680 (3.29 mgd)	3,787 (3.38 mgd)

Notes:

1. This table is based on the DWR Guidebook Table 21.
2. For population projections see Section 2.3.
3. Based on calendar year.
4. Volumes of wastewater collected and treated are estimated based on the per capita generation factor.  
 $WW = \text{population} \times 100 \text{ gal/day}$

**Table 4-14: Estimates of Existing and Projected Disposal of Non-Recycled Wastewater in ac-ft/yr (mgd) for the South Arcadia System**

Method of Disposal	Treatment Level	2005 <sup>(2)</sup>	2010 <sup>(2)</sup>	2015	2020	2025	2030	2035
River Discharge	Tertiary	1,793 (1.60)	1,815 (1.62)	1,882 (1.68)	1,950 (1.74)	2,016 (1.80)	2,080 (1.86)	2,141 (1.91)

Notes:

1. This table is based on the DWR Guidebook Table 22.
2. Based on actual year.
3. Volumes of effluent discharged are estimated. For a description of the methodology, refer to the text.

**Table 4-15: Existing Recycled Water Use in the South Arcadia System**

Type of Use	Treatment Level	2010 Use (ac-ft/yr)
N/A	N/A	N/A

#### 4.8.3 Potential and Projected Use

Although the wastewater generated in the South Arcadia System is treated by the San Jose Creek and Whittier Narrows WRPs, the recycled water distribution networks from these two facilities do not extend to the South Arcadia System. It is the responsibility of LACSD, as owner and operator of these facilities, to determine the feasibility of extending the recycled water distribution network to South Arcadia. At this time, LACSD does not have plans to extend their distribution network.

In addition to LACSD, the Upper San Gabriel Municipal Water District (Upper District), a member agency of the Metropolitan Water District of Southern California and a water provider for the GSWC, has developed a direct reuse project located in the vicinity of the South Arcadia System. The Direct Reuse project will supply approximately 1,800 ac-ft/yr of recycled water to irrigation customers in the Whittier Narrows area in order to replace groundwater and imported potable water that historically has been used for irrigation at these customer locations. However, this project does not include GSWC customers within the South Arcadia System.

Since there are no plans to extend recycled water use to the South Arcadia System, Table 4-16 and Table 4-17 were intentionally left blank. In the 2005 UWMP for the South Arcadia System there were no projections of recycled water use by the year 2010; so Table 4-18 has also been left blank.

Table 4-16: Potential Future Recycled Water Uses in ac-ft/yr

Type of Use	Treatment Level	Description	Feasibility	2015	2020	2025	2030	2035
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Note:

This table is based on the DWR Guidebook Table 23.

Table 4-17: Projected Future Recycled Water Use in Service Area in ac-ft/yr

Type of Use	2015	2020	2025	2030	2035
N/A	N/A	N/A	N/A	N/A	N/A

Table 4-18: Comparison of Recycled Water Uses—Year 2000 Projections versus 2005 Actual

Type of Use	2005 Projection for 2010	2010 Actual Use
N/A	N/A	N/A

Note:

This table is based on the DWR Guidebook Table 24.

#### 4.8.4 Optimization and Incentives for Recycled Water Use

If and when the LACSD and/or Upper District decide to extend the distribution of recycled water to South Arcadia, where feasible, GSWC will support the projects by encouraging recycled water use among its customers. However, because no plans exist to provide recycled water to the South Arcadia System, there are no actions in place at this time by which GSWC is encouraging the use of recycled water in this system. Therefore, Table 4-19 is not applicable for this system and has been intentionally left blank.

Table 4-19: Methods to Encourage Recycled Water Use and the Resulting Projected Use in ac-ft/yr

Actions	2015	2020	2025	2030	2035
N/A	N/A	N/A	N/A	N/A	N/A

Note:

This table is based on the DWR Guidebook Table 25.

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## Chapter 5: Water Quality

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Section 10634 of the Act requires an analysis of water quality issues and their impact to supply reliability. The Act states as follows:

*Section 10634. The plan shall include information, to the extent practicable, relating to the quality of existing sources of water available to the supplier over the same five-year increments as described in subdivision (a) of Section 10631 and the manner in which water quality affects water management strategies and supply reliability.*

### 5.1 GSWC Measures for Water Quality Regulation Compliance

To facilitate full compliance with water quality laws and regulations, GSWC maintains an Environmental Quality Department that has independent lines of reporting authority within the organization. The Environmental Quality Department is headed by a company officer specifically assigned to oversee and manage the company's environmental and water quality programs. The Vice President of Environmental Quality has a staff of three managers, including two Water Quality Managers. The Water Quality Managers, in turn, manage a staff of Water Quality Engineers and Technicians that are assigned to district offices. Each district office is assigned one Water Quality Engineer and at least one Water Quality Technician to provide direct support to the local drinking water systems within the district.

The District Water Quality Engineer is the main point of contact for the California Department of Public Health (CDPH) as well as other regulatory agencies. The Water Quality Engineer also is responsible for coordinating compliance measures through scheduling required sample collection, preparing water quality related plans, maintaining a water quality database, providing training to operations, maintaining a cross connection control program, and preparing and submitting monitoring reports, permit applications and other regulatory related correspondence.

As a whole, the Environmental Quality Department monitors and participates in the implementation of new water quality related laws and regulations. Through routine department meetings and training, the District Water Quality Engineers are kept up to date with changing water quality regulations and related technology. These efforts contribute towards maintaining a pool of trained water quality professionals that can be utilized throughout the company. This provides the company the ability to respond to a wide variety of water quality issues or emergencies.

### 5.2 Water Quality Issues

The drinking water quality of the South Arcadia System must comply with the Safe Drinking Water Act (SDWA), which is composed of primary and secondary drinking water standards regulated by the U.S. Environmental Protection Agency and CDPH. Water Quality sampling is performed at each well and within the distribution system to ensure compliance with the regulatory standards.

### 5.2.1 Surface Water Quality

Surface water is not provided in the South Arcadia System.

### 5.2.2 Groundwater Quality Management

Significant groundwater contamination in the Main San Gabriel Basin has resulted from industrial solvents known as volatile organic compounds (VOCs) and agricultural practices which contribute nitrates to the groundwater. In an effort to create a coordinated response to the groundwater contamination issue and to minimize impacts to groundwater supply, Main Basin water agencies adopted a joint resolution in 1989. This resolution assigned the Main Basin Watermaster the responsibility of developing and maintaining a 5-Year Water Quality and Supply Plan, subject to review by the Los Angeles Regional Water Quality Control Board. The objective of the 5-Year Plan is to coordinate cleanup projects, and ensure that pumping does not lead to degradation of water quality in the Main Basin. The Upper District also maintains a basinwide groundwater quality management and remediation plan (Upper District, 2010). As a result of these coordinated efforts by the Main Basin Watermaster and Upper District, groundwater quality is carefully monitored and activities are regulated to ensure that the effect of contamination on water suppliers, including GSWC, is minimized.

### 5.2.3 Groundwater Quality

Table 5-1 summarizes water quality issues and recommendations for wells within the South Arcadia System. The groundwater wells in the system meet all current California Title 22 drinking water standards before water is delivered to customers. The following discussion relates to contaminants with MCLs that are either existing or have been proposed by the USEPA and/or CDPH.

Drinking water regulations pertaining to emerging contaminants of concern, such as chromium (VI), nitrosamines, and VOCs, and potential revisions to existing regulations are closely monitored by GSWC's Environmental Quality Department. The appropriate sampling and action will be taken on any affected water supply sources as monitoring requirements, new or revised MCLs are promulgated by the USEPA or CDPH. It is anticipated that it will take approximately 2 to 5 years from official adoption of a new or revised MCL to implement wellhead treatment or alternative approach for a source, including all steps from procuring CPUC funding approval to planning, permitting, design, and construction. There is typically adequate time allotted from regulatory approval to promulgation of a new drinking water standard to address localized treatment requirements; therefore no direct impacts to water supply reliability from future water quality regulations are anticipated at this time.

Strategies for treating groundwater in the South Arcadia System are designed to state and federal regulations. All equipment is regularly maintained by GSWC personnel, and any failures are immediately addressed, resulting in minimal disruption to water supply.

The South Arcadia System currently includes a total of 10 wells, three of which have been taken off-line due to groundwater contamination. These three wells and associated contaminants are:

- Graydon Wells 1 and 2 – VOCs and nitrate
- Jefferies Well 3 – VOCs and nitrate

The water system has been able to compensate for the loss of the contaminated wells and maintain its extractions from the basin by upgrading equipment at existing well sites, and making other system improvements.

**Perchlorate.** To date, perchlorate has impacted three wells: Encinita Wells 1, 2 and 3. The perchlorate levels in these wells have remained below the MCL of 6 µg/L. While perchlorate is not expected to exceed the MCL within the South Arcadia System, it is anticipated it would take approximately 2 to 5 years to implement a perchlorate wellhead treatment system such as ion exchange should treatment be required in the future. Consideration will also be included for alternative water quality management strategies such as blending or supply replacement.

**VOCs.** Volatile organic compounds (VOCs) have impacted the Encinita wells for which granular activated carbon treatment is being used. VOCs have also been detected at concentrations less than the MCL in Persimmon Well 1. VOC monitoring in this well is occurring on a more frequent basis in accordance with the regulations.

**Total Coliform.** Farna Well #1 occasionally has total coliform positives. The well is chemically treated after two consecutive positive samples. Coliform positives at this well are not expected to affect compliance with the Groundwater Rule. If a sample collected from the well in accordance with the Groundwater Rule is fecal-indicator positive, public notification and possible corrective action would be necessary. Since the well does not have a history of fecal coliform, it is not expected to be an issue.

**Radon.** Radon has also been detected many of the wells in the system. Radon levels have been reported in the range of 114 to 549 pCi/L. In 1999, the USEPA proposed a radon MCL at 300 pCi/L, with an alternative standard of 4,000 pCi/L if the state has an approved Multimedia Mitigation program to reduce the indoor radon risk from soil and rocks underneath homes and buildings. While the proposed radon rule has not proceeded to promulgation, the effect of the proposed radon MCL would be widespread in groundwater wells throughout California.

Groundwater production from some wells in this system will be impacted if the radon MCL is set at 300 pCi/L. Best available technologies for radon removal include Packed Tower Aeration (PTA) and Granular Activated Carbon (GAC). Due to some critical operation concerns with the use of GAC, PTA is the most common and effective method for radon removal. Installation of treatment facilities at some of the well sites in this system may be problematic due to lack of available space for treatment equipment. It is expected the state will develop an approved Multimedia Mitigation program thus allowing the alternative MCL standard.

Table 5-1: Summary of Assessment

Well	Current Well Capacity (gpm) <sup>(1)</sup>	Status	Water Quality Issue/Concern	Existing Treatment	Recommendations
Encinita No. 1	1,100	Active	VOCs and perchlorate; Radon, nitrate	GAC	Continue Treatment; Future multimedia mitigation (radon)
Encinita No. 2	1,000	Active	VOCs and perchlorate; Radon	GAC	Continue Treatment; Future multimedia mitigation (radon)
Encinita No. 3	900	Active	VOCs and perchlorate; Radon	GAC	Continue Treatment; Future multimedia mitigation (radon)
Farna No. 1	1,400	Active	Radon, TC		Future multimedia mitigation (radon); 4-log inactivation
Farna No. 2	1,050	Active	Radon		Future multimedia mitigation (radon)
Graydon No. 1	0	Inactive	VOCs & Nitrate		Destroy
Graydon No. 2	0	Inactive	VOCs & Nitrate		Destroy
Jefferies No. 3	0	Inactive	VOCs & Nitrate		Destroy
Jefferies No. 4	1,300	Active	Radon		Future multimedia mitigation (radon)
Persimmon No. 1	1,000	Active	VOCs		Elevated VOC monitoring

Note:

1. Estimated annual average current well production capacity is provided; actual and design instantaneous pumping capacity may be greater for each well.

### 5.2.4 Distribution System Water Quality

Distribution system water quality monitoring is performed for several water quality parameters in the South Arcadia System, including general physical parameters, presence of coliform bacteria, disinfectant and disinfection by-product levels. Corrosivity of the water is monitored by measuring lead and copper levels at customer water taps. The South Arcadia System utilizes an approved Sample Siting Plan for the collection, recording, and reporting of all bacteriological analyses. All monitoring parameters and levels currently meet drinking water standards. The ability to continue to meet these standards is not expected to change in the foreseeable future. Drinking water standard levels for disinfection by-products will be lowered in the future in accordance with the Stage 2 D/DBP Rule. It is anticipated that the system will meet the new standard without treatment or operational changes. The South Arcadia System has also established an aggressive cross-connection control program to reduce the hazard associated with backflow and back-siphonage. These programs are required to comply with CDPH regulations on Waterworks Standards and Cross Connection Control.

### 5.3 Projected Water Quality Impacts

If the water system loses additional wells due to groundwater contamination (Table 5-2), evaluations will be made to determine the feasibility of replacement water supply, treatment options and/or drilling new wells in accordance with the requirements of the Upper District's groundwater quality management policies.

Table 5-2: Summary of Projected Water Supply Changes Due to Water Quality Issues in ac-ft/yr						
Water Source	2010	2015	2020	2025	2030	2035
Encinita 1	0	0	0	0	0	0
Encinita 2	0	0	0	0	0	0
Encinita 3	0	0	0	0	0	0
Farna 1	0	0	0	0	0	0
Farna 2	0	0	0	0	0	0
Graydon 1	(600)	0	0	0	0	0
Graydon 2	(600)	0	0	0	0	0
Jefferies 3	(750)	0	0	0	0	0
Jefferies 4	0	0	0	0	0	0
Persimmon 1	0	0	0	0	0	0

Note:

Table format based on DWR Guidebook Table 30.

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## Chapter 6: Water Supply Reliability

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Sections 10631 and 10635 of the Act require that an assessment of water supply reliability for various climatic conditions be undertaken. The Act states:

*Section 10631.*

- (c) (1) *Describe the reliability of the water supply and vulnerability to seasonal or climatic shortage, to the extent practicable, and provide data for each of the following:*
- (A) *An average water year.*
  - (B) *A single dry water year.*
  - (C) *Multiple dry water years.*
- (2) *For any water source that may not be available at a consistent level of use, given specific legal, environmental, water quality, or climatic factors, describe plans to supplement or replace that source with alternative sources or water demand management measures, to the extent practicable.*

*Section 10635.*

- (a) *Every urban water supplier shall include, as part of its urban water management plan, an assessment of the reliability of its water service to its customers during normal, dry, and multiple dry water years. This water supply and demand assessment shall compare the total water supply sources available to the water supplier with the total projected water use over the next 20 years, in five-year increments, for a normal water year, a single dry water year, and multiple dry water years. The water service reliability assessment shall be based upon the information compiled pursuant to Section 10631, including available data from state, regional, or local agency population projections within the service area of the urban water supplier.*

### 6.1 Reliability of Supply

The South Arcadia System derives most of its water supply from groundwater in the Main San Gabriel Groundwater Basin. The groundwater supply is replenished by natural recharge from infiltration of rainfall and the San Gabriel River, as well as Metropolitan imported water delivered by member agencies that are responsible agencies to the Basin adjudication: Upper District, Three Valleys Municipal Water District (TVMWD), and San Gabriel Valley Municipal Water District (SGVMWD). Upper District is the agency identified in the Judgment that is responsible for importing water into the basin for the South Arcadia and South San Gabriel Systems. The following discussion summarizes the reliability of GSWC's water supply sources through the San Gabriel Basin.

In general, GSWC's supply is expected to be 100 percent reliable through 2035. This is result of the projected reliability of Metropolitan and its member agencies that provide recharge water to the San Gabriel Basin when surplus water is available for recharge. Metropolitan, which is the source of water for its member agencies in the Basin, has indicated that it will maintain 100 percent reliability through 2035. This suggests that Metropolitan will continue to have surplus water for groundwater replenishment and long-term storage in the Main San Gabriel Basin, improving the reliability of the Basin water supply and, indirectly, the reliability of South Arcadia wells. Groundwater reliability is based on GSWC's share of the projected Main San Gabriel Basin's annual OSY and the current and planned projects in the Main San Gabriel Basin designed to increase the reliability of the groundwater supply. The following is a summary of the basis of this reliability.

### 6.1.1 Metropolitan Supply Reliability

Metropolitan member agencies in the San Gabriel Valley are largely pass-through entities that obtain nearly all their imported water from Metropolitan, directly or indirectly. Metropolitan's resource management plans are intended to optimize the use of its available resources during surpluses and shortages to minimize the probability of severe shortages and eliminate the possibility of extreme shortages and shortage allocations

This section presents a brief discussion of the source reliability of Metropolitan's primary water supply sources: imported water supply from the Colorado River and the State Water Project, and Metropolitan's plans to ensure a reliable water supply into the future. Metropolitan maintains a diverse portfolio of water sources including surface water supply, aquifer recharge and recovery, desalination, and recycled water. The two primary components of Metropolitan's water supplies are also the most variable:

- **Colorado River Supply:** Metropolitan owns and operates the Colorado River Aqueduct (CRA), which connects the Colorado River to the Metropolitan regional distribution system. The CRA has a capacity of 1.25 Million AFY (MAF) to transport Metropolitan's current contracted entitlement of 550 Thousand AFY (TAF) of Colorado River water. Metropolitan also holds a priority for an additional 662 TAF and 180 TAF when surplus flows are available.
- **State Water Project (SWP) Supply:** The original State Water Project Contract called for an ultimate delivery capacity of 4.2 MAF, with Metropolitan holding a contract for 1.9 MAF. Since that time there have been significant challenges to meeting those delivery goals. DWR released a Water Allocation Analysis in 2010 that has resulted in a Metropolitan estimated reduction in SWP supplies of 150 – 200 TAF for 2010 (Metropolitan Draft Regional UWMP, 2010).

As a result of the inherent uncertainty in Colorado River and SWP supplies given various hydrologic, environmental, and legal considerations, Metropolitan has undertaken several planning initiatives, summarized below, to broaden its water resources reliability. Metropolitan has documented that consistent with Section 4202 of its Administrative Code, the agency is prepared to provide its member agencies with adequate supplies of water to meet expanding and increasing needs in the years ahead. When additional water resources are required to meet increasing needs, Metropolitan has stated that it will be prepared to deliver such supplies. In its 2010 Regional Urban Water Management Plan, Section II.4, Metropolitan also states that as a result of investments made in supply and storage, it has identified a resource management plan that should result in 100 percent reliability for non-discounted non-interruptible demands through 2035.

- **Integrated Resources Plan Updates (IRP):** Metropolitan's IRP updates completed in 1996 and updated in 2004 and 2010, included assessments of potential future regional demand projections based upon anticipated population and economic growth as well as conservation potential. The IRP also includes regional supply strategies and implementation plans to better manage resources, meet anticipated demand, and ensure overall system reliability. Metropolitan intends to implement the 2010 IRP to further support member agency local resource development as well as to investigate generating its own local resources for distribution to member agencies. The development of local resources, as well as the furthering of existing conservation goals to meet the Water Conservation Act of 2009 targets, is anticipated to provide a supply buffer for member agencies to rely upon in times of drought and long-term climatic changes.

- **1999 Water Surplus and Drought Management Plan (WSDM):** The WSDM provides the policy guidance to manage the region’s water supplies to achieve the reliability goals of the IRP. This is achieved by integrating the operating activities of surplus and shortage supplies through a series of stages and principles.
- **2008 Water Supply Allocation Plan (WSAP):** The WSAP includes the specific formula for calculating member agency supply allocations and the key implementation elements needed for administering the allocation. The need for the WSAP arose after the 2008 Bay-Delta biological opinions and rulings that limited SWP supplies to its contractors including Metropolitan. The WSAP formula seeks to balance the impacts of a shortage at the retail level while maintaining equity on the wholesale level for shortages of Metropolitan supplies up to 50 percent.

Since the 2008 Bay-Delta reductions, Metropolitan has been using the WSAP formulas to contend with the reduction in available imported supplies implementing a Stage 2 (Regional 10 percent reduction in supply allocation) of the WSAP from July 2009 to April 2011. During such allocations, Metropolitan institutes severe financial penalties should an entity request supply over their reduced allocation. This in effect, limits supply at the retail level. Although it is anticipated that the WSAP will continue to be in effect in the near-term, Metropolitan states in its 2010 Draft UWMP that there will be sufficient supply to meet member agency demands in single and multiple-dry years from 2015 through 2035. However, this is assuming that Metropolitan storage levels are at or above average levels prior to those cycles, and key programs come to fruition as assumed by Metropolitan in their projections. For example, Metropolitan assumes that a Delta conveyance solution will be in place by 2022. Also, Metropolitan has indicated that there is a 50 percent probability that storage levels will be lower than the assumption used. Based on the recent WSAP allocations and regulatory restrictions in the Delta, GSWC’s conservative assumption is that Metropolitan’s projections in their 2010 Draft UWMP may not be 100 percent reliable in all cases.

### 6.1.2 The Upper District’s Water Supply Reliability

In addition to Metropolitan’s reliability initiatives, the Upper District, GSWC and other water producers and wholesale entities within the San Gabriel Basin participate in a variety of programs intended to enhance the reliability of regional water supply. These projects include surface water treatment plant improvements, percolation studies, recycled water, and groundwater cleanup. In addition, the Upper District is currently evaluating the expanded use of recycled water for groundwater recharge. See the Upper District’s 2010 UWMP for details.

### 6.1.3 South Arcadia System’s Groundwater Supply Reliability

Supply reliability for the South Arcadia System depends upon local groundwater supplies, as discussed above.

Under the Main San Gabriel Basin Judgment, the Watermaster is responsible for managing withdrawals from the Basin by monitoring groundwater levels at the Baldwin Park Key Well. The Judgment states that the Watermaster shall not spread replenishment water when the groundwater level at the Key Well exceeds 250 feet above mean sea level (msl). The Judgment also states that the Watermaster shall spread replacement water necessary to maintain the water level elevation above 200 feet msl. Since the Judgment was enacted in 1973, significant drought events have occurred from 1973 to 1977, 1983 to 1991, and 1998 to 2004. In each drought cycle, the Main San Gabriel Basin has been managed to maintain groundwater levels.

Based on historic management practices, all pumpers from the Main San Gabriel Basin will have adequate supply over the next 25 years under single year and multiple year drought periods (Upper District, 2011). The Upper District's UWMP provides basin-wide details about the reliability of the Main San Gabriel Basin.

GSWC and other water producers participate with the responsible agency, Upper District, to ensure that the OSY is available to the pumpers in the Main San Gabriel Basin. The Upper District has a cyclic storage agreement with Metropolitan and the Main Basin Watermaster. Cyclic storage accounts have been used to increase storage in the basin since 1975. Metropolitan pre-delivers replenishment water to the Basin and later sells the stored water to the water districts at a reduced rate. Metropolitan can store up to 100,000 ac-ft of water for the Upper District. Currently, Metropolitan has 22,633 ac-ft of water in storage for Upper District (Main San Gabriel Basin Watermaster 2010).

The Main San Gabriel Groundwater Basin's pumping and reliability is subject to the OSY established each fiscal year by the Watermaster and the availability of replenishment water. Long-term cyclic storage provides a mechanism that allows the responsible agency to establish a buffer during droughts and periods of reduced OSY by allowing for storage recharge waters during times of available import supplies. Recharge in the basin occurs from percolation of precipitation, return flow of applied water, some septic system discharges, and stream flow. Recharge through streams and spreading basins is generated from runoff from surrounding mountains and imported water from the State Water Project and the Colorado River.

There are pending amendments to the Judgment that would enhance groundwater reliability in the basin. The Watermaster has determined that its 1973 Judgment may require changes to reflect the current conditions and allow the Watermaster more flexibility in securing necessary supplemental supplies. The Watermaster expects proposed changes to be finalized and submitted to the Los Angeles Superior Court for approval after FY 2010-11 (Watermaster 2010). Some of the key proposed changes that would enhance basin groundwater reliability and reduce vulnerability to droughts and uncertain imported supplies include:

- Storage and export –allow for outside water to be stored and exported by agreement with Watermaster;
- Recycled water –remove the limit on recycled water that can be recharged in 1 year;
- Key Well –eliminate the 250-foot upper limit at the Key Well for spreading imported water;
- Assessments –provide a means for the Watermaster to levy assessments to support endeavors such as pre-purchasing Replacement Water, development of new supplemental water resources (such as the recycled water recharge project), and to buy supplemental water that may become available unexpectedly or on short notice.

The Upper District may also increase reliability through the potential supply up to 15,000 ac-ft of recycled water within their service area through the Direct Reuse Project. This project will optimize the availability of Metropolitan's imported water supply, enhancing the reliability of regional water supplies. This project will replace untreated imported water used for groundwater replenishment and irrigation. The project will be completed in four phases, ultimately providing tertiary treated water from the Whittier Narrows and San Jose Creek Water Reclamation Plants to landscape and industrial users and in the cities of Pico Rivera, El Monte, Irwindale, West Covina, and Walnut. In addition to providing an additional source of recharge to the Basin, The expansion of recycled water distribution by the Upper District is expected to reduce reliance on

groundwater in general and help to ensure the reliability of the Main San Gabriel Basin groundwater supply for South Arcadia.

Table 6-1 presents water supply projections for groundwater sources during a normal year, a single-dry year, and multiple-dry years for the South Arcadia System. The normal-year supply represents the expected supply under average hydrologic conditions, the dry-year supply represents the expected supply under the single driest hydrologic year, and the multiple-dry year supply represents the expected supply during a period of three consecutive dry years. Table 6-2 lists the historic range of precipitation data that was reviewed for the reliability analysis of single-dry year and multiple-dry year periods.

Under the Under the Main San Gabriel Basin Judgment, the Watermaster adjusts the OSY annually to account for fluctuations in groundwater availability in the Basin. The objective is to ensure that all pumpers, including GSWC, will have adequate supply to meet their demands during normal year, single-dry year, and multiple-dry year periods. Replenishment water is used to replace the water pumped above a pumper's share of the OSY and to maintain groundwater levels in the Key Well above 200 feet msl. The replenishment water for the Main San Gabriel Basin will be imported water from Metropolitan supplied by the Upper District. Metropolitan has provided its member agencies with a reliability analysis for imported water supplies under all hydrologic conditions, which indicates Metropolitan's plan to provide 100 percent reliability through 2035 (Metropolitan, 2010). Upper District has provided projections of up to 33,000 ac-ft/yr of untreated imported water and recycled water to be used for basin replenishment through Fiscal Year 2030-31. (Upper District, 2011).

Table 6-1: Supply Reliability for the South Arcadia System for Year 2035 in ac-ft/yr					
Source	Normal Water Year	Single-Dry Water Year	Multiple-Dry Water Years		
			Year 1	Year 2	Year 3
Purchased water	0	0	0	0	0
Groundwater	4,815	4,815	4,815	4,815	4,815
Total	4,815	4,815	4,815	4,815	4,815
Percent of Normal		100	100	100	100

Note:

Table format based on DWR Guidebook Table 28.

As described above, the Main San Gabriel Basin is operated to store storm water, recycled water, and imported water when these waters are available. Stored water is then withdrawn in drier years to meet the requirements of the Watermaster established under the Main San Gabriel Basin Judgment. The Basin has proven to be very reliable in meeting all demands under extreme climate conditions since 1973 and is expected to remain reliable through 2035.

Table 6-2 lists single-dry year and multiple-dry year periods for groundwater supplies. The single-dry year and multiple-dry year periods are based on Upper District's and Metropolitan's analysis on the lowest average precipitation for a single year and consecutive multiple-year period, respectively. Metropolitan's estimates, based on average rainfall between 1922 and 2004, uses the average of these years for normal water year conditions. 1977 represents the single-dry year, and the years 1990-1992 represent the driest three consecutive years. Effective

management by the Main San Gabriel Basin Watermaster is expected to ensure that the Basin will have sufficient storage to meet projected water demands for these periods, so the available supply is equal to the projected demands. Annual reductions from 2005 to 2009 in the San Gabriel Basin OSY set the OSY at 170,000 ac-ft/yr for the 2010/2011 water year. However, for the 2011/2012 water year the OSY was increased to 210,000 ac-ft/yr.

The South Arcadia System has pumped between 3,395 ac-ft/yr and 4,297 ac-ft/yr during the past 5 years. The South Arcadia System is projected to pump between 4,235 ac-ft/yr and 4,815 ac-ft/yr from 2010 through 2035.

Table 6-2: Basis of Water Year Data		
Water Year Type	Base Year(s)	Historical Sequence
Normal Water Year <sup>(2)</sup>	Average of 1922 - 2004	1922 - 2004
Single-Dry Water Year	1977	1922 - 2004
Multiple-Dry Water Years	1990 - 1992	1922 - 2004

Notes:

1. Based on Metropolitan Water District 2010 RUWMP analysis of climate data.
2. Normal Water Year calculated from average precipitation for 1922-2004.
3. Table format based on DWR Guidebook Table 27.

#### 6.1.4 Factors Resulting in Inconsistency of Supply

Table 6-3 presents factors that could potentially result in inconsistency of the groundwater supply for the South Arcadia System. Although there are no known factors that would result in an inconsistency in overall water supply, it should be noted that groundwater extractions in the Main San Gabriel Groundwater Basin are regulated by the Watermaster. Annually, the Watermaster establishes basin-wide pumping limits based on local hydrologic conditions and groundwater levels within the basin. In dry years, when the operating safe yield (OSY) is low and GSWC's water right is correspondingly reduced, GSWC does have the option of leasing or purchasing water rights from other users in the basin and can thereby reliably meet all system demands. The adjudication for the Main San Gabriel Basin also permits a producer to pump more than its rights when replenishment water is available from the responsible agency. A replenishment fee is required for all production in excess of the allocated rights. As a result, GSWC does not foresee any inconsistency in its ability to supply the South Arcadia System, and Table 6-3 is intentionally blank.

Table 6-3: Factors Resulting in Inconsistency of Supply				
Name of Supply	Legal	Environmental	Water Quality	Climatic
Groundwater, Main San Gabriel Basin	N/A	N/A	N/A	N/A

Notes:

1. Table format based on DWR Guidebook Table 29.
2. N/A – Not Applicable.

## 6.2 Normal Water Year Analysis

Table 6-4 summarizes the service reliability assessment for a normal water year based on water supply and water demand projections for the South Arcadia System.

Table 6-4: Comparison of Projected Normal Year Supply and Demand					
	2015	2020	2025	2030	2035
Water Supply Total (ac-ft/yr)	4,235	4,414	4,557	4,698	4,815
Water Demand Total (ac-ft/yr)	4,235	4,414	4,557	4,698	4,815
Difference (supply minus demand)	0	0	0	0	0
Difference as Percent of Supply	0%	0%	0%	0%	0%
Difference as Percent of Demand	0%	0%	0%	0%	0%

Note:

Table format based on DWR Guidebook Table 32.

## 6.3 Single-Dry-Year Analysis

Table 6-5 demonstrates the reliability of water supplies to meet projected annual water demands for the South Arcadia System in a single-dry year.

Table 6-5: Comparison of Projected Supply and Demand for Single-Dry Year					
	2015	2020	2025	2030	2035
Supply Total (ac-ft/yr)	4,235	4,414	4,557	4,698	4,815
Demand Total (ac-ft/yr)	4,235	4,414	4,557	4,698	4,815
Difference (supply minus demand)	0	0	0	0	0
Difference as Percent of Supply	0%	0%	0%	0%	0%
Difference as Percent of Demand	0%	0%	0%	0%	0%

Note:

Table format based on DWR Guidebook Table 33.

## 6.4 Multiple-Dry-Year Analysis

Table 6-6 presents the projected multiple-dry year water supply and demand assessment. It is assumed that the multiple-dry year water supplies are the same as those for the normal years because groundwater supply is expected to meet demands under all anticipated hydrologic conditions. The third year of the multiple-dry year water supply projection represents the end of each 3-year multiple-dry year period as required for the multiple-dry year analysis. Upper District has determined that they can meet projected water demands for multiple-dry years, and should have replenishment water available for groundwater recharge.

Table 6-6 demonstrates that the water supplies are sufficient to meet the projected water demand for each multiple-dry year period because groundwater from the Main San Gabriel Groundwater Basin is expected to be 100 percent reliable in multiple-dry years.

In summary, GSWC, Main Basin Watermaster, and Upper District have implemented and will continue to implement groundwater storage and recharge projects and manage groundwater withdrawals to ensure that water demands can be met under normal year, single-dry year, and multiple-dry years.

Table 6-6: Projected Multiple-Dry Year Water Supply and Demand Assessment					
Year	Supply (ac-ft/yr)	Demand (ac-ft/yr)	Difference	Difference as Percent of Supply	Difference as Percent of Demand
2011					
2012					
2013	3,899	3,899	0	0%	0%
2014	4,067	4,067	0	0%	0%
2015	4,235	4,235	0	0%	0%
2016					
2017					
2018	4,342	4,342	0	0%	0%
2019	4,378	4,378	0	0%	0%
2020	4,414	4,414	0	0%	0%
2021					
2022					
2023	4,500	4,500	0	0%	0%
2024	4,529	4,529	0	0%	0%
2025	4,557	4,557	0	0%	0%
2026					
2027					
2028	4,642	4,642	0	0%	0%
2029	4,670	4,670	0	0%	0%
2030	4,698	4,698	0	0%	0%
2031					
2032					
2033	4,769	4,769	0	0%	0%
2034	4,792	4,792	0	0%	0%
2035	4,815	4,815	0	0%	0%

Notes:

1. This assessment is based on the 3-year multiple-dry year period ending in 2015, 2020, 2025, 2030, and 2035.
2. Table format based on DWR Guidebook Table 34.

## Chapter 7: Conservation Program and Demand Management Measures

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This Chapter addresses the water conservation requirements of the Act for the South Arcadia System and includes a summary of current and planned Demand Management Measure (DMM) implementation and an overview of the proposed program for compliance with SBX7-7, which requires 20 percent statewide reduction in urban water use by 2020. The DMM portions of the Act state the following:

### *Section 10631.*

- (f) *Provide a description of the supplier's water demand management measures. This description shall include all of the following:*
- (1) *A description of each water demand management measure that is currently being implemented, or scheduled for implementation, including the steps necessary to implement any proposed measures, including, but not limited to, all of the following:*
    - (A) *Water survey programs for single-family residential and multifamily residential customers.*
    - (B) *Residential plumbing retrofit.*
    - (C) *System water audits, leak detection, and repair.*
    - (D) *Metering with commodity rates for all new connections and retrofit of existing connections.*
    - (E) *Large landscape conservation programs and incentives.*
    - (F) *High-efficiency washing machine rebate programs.*
    - (G) *Public information programs.*
    - (H) *School education programs.*
    - (I) *Conservation programs for commercial, industrial, and institutional accounts.*
    - (J) *Wholesale agency programs.*
    - (K) *Conservation pricing.*
    - (L) *Water conservation coordinator.*
    - (M) *Water waste prohibition.*
    - (N) *Residential ultra-low-flush (ULF) toilet replacement programs.*
  - (2) *A schedule of implementation for all water demand management measures proposed or described in the plan.*
  - (3) *A description of the methods, if any, that the supplier will use to evaluate the effectiveness of water demand management measures implemented or described under the plan.*
  - (4) *An estimate, if available, of existing conservation savings on water use within the supplier's service area, and the effect of the savings on the supplier's ability to further reduce demand.*
- (g) *An evaluation of each water demand management measure listed in paragraph (1) of subdivision (f) that is not currently being implemented or scheduled for implementation. In the course of the evaluation, first consideration shall be given to water demand management measures, or combination of measures, that offer lower incremental costs than expanded or additional water supplies. This evaluation shall do all of the following:*
- (1) *Take into account economic and noneconomic factors, including environmental, social, health, customer impact, and technological factors.*
  - (2) *Include a cost-benefit analysis, identifying total benefits and total costs.*
  - (3) *Include a description of funding available to implement any planned water supply project that would provide water at a higher unit cost.*
  - (4) *Include a description of the water supplier's legal authority to implement the measure and efforts to work with other relevant agencies to ensure the implementation of the measure and to share the cost of implementation.*
- (j) *For purposes of this part, urban water suppliers that are members of the California Urban Water Conservation Council shall be deemed in compliance with the requirements of subdivisions (f) and (g) by*

*complying with all the provisions of the "Memorandum of Understanding Regarding Urban Water Conservation in California," dated December 10, 2008, as it may be amended, and by submitting the annual reports required by Section 6.2 of that memorandum.*

## 7.1 Conservation Program Background

In 1991, GSWC became a signatory to the MOU regarding water conservation in California and a member of the CUWCC, establishing a firm commitment to the implementation of the Best Management Practices (BMPs) or DMMs. The CUWCC is a consensus-based partnership of agencies and organizations concerned with water supply and conservation of natural resources in California. By becoming a signatory, GSWC committed to implement a specific set of locally cost-effective conservation practices in its service areas.

To facilitate efficient BMP reporting for water systems located in GSWC's three regions in California, GSWC established a number of BMP "Reporting Units" based on geographic proximity. GSWC's conservation program implementation for the San Gabriel Valley Reporting Unit includes the reporting of the South Arcadia and South San Gabriel systems. Therefore, this chapter includes the reporting for both systems.

As an investor-owned utility, GSWC's ability to obtain funding and implement conservation programs is contingent on approval of the General Rate Case by the CPUC. GSWC is currently in the process of reviewing and revising its existing conservation program as follows:

- In 2011, GSWC will be submitting a General Rate Case with the CPUC which will facilitate further development of cost-effective conservation programs, including compliance with SBX7-7.
- Subject to funding approval for each rate making area, GSWC will conduct a baseline water use efficiency assessment of each of its districts to identify the opportunities for cost-effective conservation. Results of the baseline assessment will be available by 2013 and will enable GSWC to define programs that target water savings in specific areas and meet DMM requirements.
- To the extent practicable, a companywide conservation program will then be implemented. Varying levels of program implementation will be scaled as appropriate for each district depending on funding availability, local wholesaler and regional participation levels, and SBX7-7 targets.

The MOU and associated BMPs were revised by the CUWCC in 2008, which is equated to the DMMs per Section 10631(j) of the Act. The revised BMPs now contain a category of "Foundational BMPs" that signatories are, for the first time and with few exceptions, expected to implement as a matter of their regular course of business. These include Utility Operations (metering, water loss control, pricing, conservation coordinator, wholesale agency assistance programs, and water waste ordinances) and Public Education (public outreach and school education programs). The remaining BMPs are called Programmatic BMPs and are divided into Residential, Large Landscape, and CII categories. These revisions are reflected in the CUWCC's BMP reporting database starting with reporting year 2009. The revised BMP organization is also reflected in the 2010 UWMP's DMM compliance requirements. A summary of the DMMs described in the Act and the current CUWCC BMP organization is presented in Table 7-1 for reference.

Table 7-1: CUWCC BMP and UWMP DMMs Organization and Names

CUWCC BMP Organization and Names (2009 MOU)				UWMP DMMs		
Type	Category	BMP #	BMP name	DMM #	DMM name	
Foundational	Operations Practices	1.1.1	Conservation Coordinator	L	Water conservation coordinator	
		1.1.2	Water Waste Prevention	M	Water waste prohibition	
		1.1.3	Wholesale Agency Assistance Programs	J	Wholesale agency programs	
		1.2	Water Loss Control	C	System water audits, leak detection, and repair	
		1.3	Metering with Commodity Rates for All New Connections and Retrofit of Existing Connections	D	Metering with commodity rates for all new connections and retrofit of existing connections	
		1.4	Retail Conservation Pricing	K	Conservation pricing	
	Education Programs	2.1	Public Information Programs	G	Public information programs	
		2.2	School Education Programs	H	School education programs	
	Programmatic	Residential	3.1	Residential assistance program	A	Water survey programs for single-family residential and multi-family residential customers <sup>(1)</sup>
					B	Residential plumbing retrofit
3.2			Landscape water survey	A	Water survey programs for single-family residential and multi-family residential customers <sup>(1)</sup>	
3.3			High-Efficiency Clothes Washing Machine Financial Incentive Programs	F	High-efficiency washing machine rebate programs	
3.4			WaterSense Specification (WSS) toilets	N	Residential ultra-low-flush toilet replacement programs	
Commercial, Industrial, and Institutional		4	Commercial, Industrial, and Institutional	I	Conservation programs for commercial, industrial, and institutional accounts	
Landscape		5	Landscape	E	Large landscape conservation programs and incentives	

Note:

1. Components of DMM A (Water survey programs for single-family residential and multi-family residential customers) applies to both BMP 3.1 (Residential assistance program) and BMP 3.2 (Landscape water survey).

## 7.2 Implementation of BMPs/DMMs

This section provides a description of the various programs and conservation activities implemented in the San Gabriel Valley Reporting Unit water systems. Signatories to the MOU are permitted by Water Code Section 10631(j) to include their biennial CUWCC BMP reports in an UWMP to meet the requirements of the DMMs sections of the UWMP Act if the agency is meeting all provisions of the MOU. The San Gabriel Valley Reporting Unit BMP coverage report for 2009 through 2010 is attached as Appendix C and supplements the summary of BMP implementation activities provided in this chapter.

GSWC is progressing towards implementing all Foundational BMPs for these systems, as required in the revised MOU and UWMP Act. The Programmatic BMPs are currently being implemented through a BMP approach for the systems. The SBX7-7 conservation goals and proposed implementation plans are discussed further in Section 7.5.

GSWC plans to continue to implement and track conservation programs for systems in the San Gabriel Valley Reporting Unit. GSWC also partners on conservation activities with its wholesale water suppliers, including Metropolitan and Upper District. GSWC's customers are eligible for a number of conservation programs offered by Metropolitan, providing water savings to GSWC. Examples of programs offered by wholesale suppliers that are available to customers include High Efficiency Clothes Washers (HECW) rebates, CII programs and rebates, and High Efficiency Toilets (HET) rebates.

## 7.3 Foundational DMMs

### 7.3.1 Utility Operations

#### 7.3.1.1 Conservation Coordinator

This BMP is implemented. GSWC maintains a fully staffed Conservation Department with a companywide Water Use Efficiency Manager, Water Conservation Analyst and one Water Conservation Coordinator for each of the three regions to administer conservation programs and support wholesaler programs which includes the South Arcadia System. GSWC also employs a number of consultants to support program development and implementation.

#### 7.3.1.2 Water Waste Prevention

Although GSWC does not have rule-making authority, it supports member agencies and local cities in efforts to adopt ordinances that will reduce water waste. This BMP is implemented through CPUC-approved rules provided in Appendix D, including Rule No. 14.1, the Water Conservation and Rationing Plan, and Rule 11, Discontinuance and Restoration of Service.

CPUC's methodology for water utilities to implement Rule 14.1 is documented in Standard Practice U-40-W, "Instructions for Water Conservation, Rationing, and Service Connection Moratoria." Rule No. 14.1 sets forth water use violation fines, charges for removal of flow restrictors, and the period during which mandatory conservation and rationing measures will be in effect. Water conservation restrictions include:

- Use of potable water for more than minimal landscaping.
- Use through a broken or defective water meter.

- Use of potable water which results in flooding or runoff in gutters or streets.
- Use of potable water for washing private cars or commercial aircrafts, cars, buses, boats, or trailers, except at a fixed location where water is properly maintained to avoid wasteful use.
- Use of potable water for washing buildings, structures, driveways, street cleaning or other hard-surfaced areas.
- Use of potable water to irrigate turf, lawns, gardens or ornamental landscaping.
- Use of potable water for construction purposes.
- Use of potable water for filling or refilling of swimming pools.

Rule No. 20 (approved in 1978) discourages wasteful use of water and promotes use of water saving devices. The stated purpose of the rule is to “ensure that water resources available to the utility are put to a reasonable beneficial use and that the benefits of the utility's water supply and service extend to the largest number of persons. Together, Rules 11, 14.1 and 20 prohibit negligent or wasteful use of water, create a process for mandatory conservation and rationing, and promote the use of water saving devices.

### **7.3.1.3 Water Loss Control**

Unaccounted for water losses are monitored by the Water Loss Control Department (WLCD) by reviewing the Water Audit program's survey results for each system. If the amount of unaccounted for water exceeds the established tolerance levels, a Leak Detection Audit is performed. This is conducted by the Water Loss Control Technician with the most current leak detection technology, a Sonic Leak Detection Sound Amplification Instrument. To pinpoint leaks, the technician conducts a comprehensive survey of the system by making physical contact with all available main line valves, hydrant valves and all service connections.

For calendar year 2009, GSWC implemented the American Water Works Association (AWWA) M36 Standard Water Audit methodology. The approach consists of a component analysis of leaks for designation into “revenue” and “non-revenue” categories and an economic analysis of recoverable loss. Results of the analysis, which are included in Appendix E, show an infrastructure leakage index (ILI) of 1.6. According to general guidelines, an ILI of 1.0 to 3.0 is appropriate for systems where water resources are costly to develop or purchase, ability to increase revenues via water rates is greatly limited because of regulation or low ratepayer affordability, and operating with system leakage above this level would require expansion of existing infrastructure and/or additional water resources to meet the demand. The initial evaluation suggests that the South Arcadia System is within the parameters of a high functioning system as defined by the AWWA.

Before the AWWA Standard Water Audit M36 methodology was implemented, prescreening for water losses was conducted by comparing the total volume of water sales and other verifiable uses against the total water supply into the system. A full audit was triggered if the total sales and verifiable uses was less than 90 percent of the total supply (i.e., unaccounted-for-water exceeded 10 percent). Table 7-2 summarizes prescreening results.

Report Year	Prescreen Completed	Prescreen Result
2006	No	-
2007	No	-
2008	Yes	93.20%
2009	Yes	97.70%

Note:  
2010 Data Not applicable; M36 method implemented.

### Implementation Steps and Schedule

Effective 2010, GSWC will continue to complete the Standard Audit and Water Balance worksheets following the AWWA M36 protocol for the next 4 years, taking measurable steps to improve data accuracy while cost-effectively reducing non-revenue water through repair of leaks and other measures.

GSWC used version 3.0 of the AWWA Water Audit software for its initial evaluation, and will use the current software for 2010 and all future evaluations. The current version includes metrics for evaluating the validity of the data. GSWC already has a work order system in place that documents leak locations and repair history.

#### **7.3.1.4 Metering with Commodity Rates for All New Connections and Retrofit of Existing Connections**

All customers in San Gabriel Valley Reporting Unit are metered and billed by volume on a monthly basis. A meter maintenance and repair plan has been submitted to the CUWCC. In addition, GSWC follows the requirements of CPUC General Order 103-A which prescribes minimum water system design, operation and maintenance standards for water utilities includes requirements for calibrating, testing frequency, and replacing water meters.

#### **7.3.1.5 Retail Conservation Pricing**

All metered customers in the San Gabriel Valley Reporting Unit are billed volumetrically. In addition, effective December 2010, GSWC has implemented a third tier of a conservation pricing rate structure for residential customers, as approved by the CPUC for Region III. The current rate structure for residential customers has a fixed charge as well as volumetric escalating pricing tiers, depending on customer usage. Non-residential customers have a fixed charge and a fixed volumetric charge. Implementation of this revised pricing policy is the result of GSWC's collaboration with CPUC to implement conservation tiered rates for residential customers of investor-owned utilities. Tiered rates are consistent with the CPUC's Water Action Plan.

### Implementation Steps and Schedule

2009 and 2010 volumetric and fixed price revenue data for the San Gabriel Valley Reporting Unit are summarized in the BMP Coverage Report located in Appendix C. Since 2010, GSWC has been adding third tier pricing structures and increasing volumetric charges. In 2010,

volumetric revenue consisted of 63.1% of San Gabriel Valley Reporting Unit's total revenue which is on track to meet the 2012 MOU goal of 70%.

As previously discussed, GSWC will be submitting a General Rate Case filing to the CPUC in 2011, which includes a proposed rate increase for volumetric charges for South Arcadia System customers. If approved, this rate increase will allow GSWC to increase volumetric revenues and progress towards fulfilling the requirements of the Retail Conservation Pricing BMP by 2015.

### 7.3.1.6 Education

#### Public Information Programs

San Gabriel Valley Reporting customers are notified of various conservation programs by the Community Education Department. GSWC had a 2010 annual budget of \$6,100 for public outreach in the San Gabriel Valley Reporting Unit. GSWC provides marketing and outreach materials to their customers by issuing press releases, publishing quarterly newsletters and using door tags and bill inserts. Customers can learn about rebates and other conservation programs on GSWC's website, which provides links to San Gabriel Valley's website for detailed information. Outreach activities completed between 2006 and 2010 are summarized in Table 7-3.

In addition, Upper District promotes water conservation through its many public information programs. Upper District offers conservation brochures and posters, activity booklets, public outreach displays, oral presentations, and workshops to inform the public of conservation efforts. Upper District also raises awareness about water conservation through paid advertising, press releases, news ads, media events, and through the Speaker's Bureau. Annually, Upper District hosts a water awareness festival (Water Fest) to raise public awareness about water conservation, water quality and other water-related issues.

Table 7-3: Outreach Activities					
Item	2006	2007	2008	2009	2010
Paid Advertising	3	2	4	4	4
Public Service Announcement	2	1	3	4	4
Bill Inserts / Newsletters / Brochures	2	4	3	8	8
Bill showing water usage in comparison to previous year's usage	Yes	Yes	Yes	Yes	Yes
Demonstration Gardens	0	0	0	1	1
Special Events, Media Events	2	1	4	2	2
Speaker's Bureau	0	0	1	0	0
Program to coordinate with other government agencies, industry, public interest groups and media	Yes	Yes	Yes	Yes	Yes

## School Education Programs

GSWC sponsors a school education program in South Arcadia elementary schools, as implemented by The Discovery Science Center (DSC), with a 2010 annual budget of \$39,000. Students learn about conservation practices and receive a free conservation kit that includes a water survey, 1.5-gpm low-flow shower head, 1.5-gpm kitchen sink aerator and 1.0-gpm bathroom aerators, leak detection dye tablets, a watering gauge, and step-by-step instructions. The students are given homework assignments to complete a water audit form and replace inefficient showerheads and aerators with water-saving devices provided in the kit. The program has been a very effective way for GSWC to reach a large number of customers and educate students, who in turn educate their parents about water use efficiency practices and low-flow plumbing devices.

Results from the program are tracked, and a comprehensive Program Summary Report is generated at the end of each school year. This report documents the estimated reduction in water usage that was achieved through the retrofits and provides data on the percentage of students who participated in the program. Table 7-4 provides a summary of program participation results between 2006 and 2010.

	2006	2007	2008	2009	2010
Presentations	12	3	-	-	-
Grade	4 <sup>th</sup> – 6 <sup>th</sup>	4 <sup>th</sup> – 6 <sup>th</sup>	4 – 6 <sup>th</sup>	-	-
Number of students	666	591	2,234	746	1367

In addition, Upper District directly offers school education programs in an effort to raise awareness of water issues. Upper District started its school education programs in September 1992 and the materials and presentations meet state education framework requirements. The following is a list of Upper District's school educational programs.

- Water Awareness Art Contests
- Solar Cup Competition
- Water Education Grant Program
- Annual Art Poster Contest for grades K through 3<sup>rd</sup> and 4<sup>th</sup> through 6<sup>th</sup>
- T-shirt Art Contest for grades 7<sup>th</sup> through 12<sup>th</sup>
- Water Resource Library

In addition to the DSC and partnering with wholesalers and other public agencies, GSWC implements Resource Action Programs (RAP) and the Science Discover (SD) program. During the 2009/2010 school year, GSWC conducted school conservation education programs for an estimated 15,525 students companywide.

### Implementation Steps and Schedule

GSWC recognizes the value in increased customer awareness of the various conservation programs that are available. To that end, GSWC will review opportunities to enhance its outreach program over the next two (2) years to supplement DSC's existing public education efforts. Public information measures that will be evaluated include additional direct mail fliers,

increased outreach participation at community functions, and an improved conservation website.

Going forward, GSWC plans to continue to use the RAP, DSC, and SD and internal staff to conduct its school conservation programs. RAP and DSC's school conservation education programs will continue to include annual reports, classroom education and the distribution and installation of conservation kits that are part of the school education program.

### **7.3.1.7 Methods Used to Evaluate Effectiveness and Water Savings from Foundational BMPs**

Effective implementation of the Foundational BMPs is critical to ensuring the long-term success of GSWC's conservation efforts. GSWC will utilize quantitative methods to assess the effectiveness of each BMP, to the extent practicable. The effectiveness of the Water Waste Prevention and Water Loss Control BMPs can be measured, in part, by completing the annual M36 water loss audits and documenting the year-over-year change in unaccounted-for water as well as the number of repair projects completed. GSWC will track the impact of new conservation pricing by using its upgraded billing system to carefully monitor consumption of residential customers.

The effectiveness of implementing Public Education BMPs will be measured by tracking the number of public outreach events and education programs where customers receive information on conservation. A successful public information program should encourage customers to take advantage of conservation incentives being offered by GSWC, Upper District, and Metropolitan as Programmatic DMMs.

There are no direct estimates of water savings applicable to the Foundational BMPs; however, these measures will continue to contribute to reducing San Gabriel Valley Reporting Unit's demand.

## **7.4 Programmatic DMMs**

GSWC intends to continue to comply with the MOU using the BMP compliance approach for the San Gabriel Valley Reporting Unit. Implementation of the programmatic BMPs will continue to be a joint effort with Metropolitan and Upper District. The wholesalers are responsible for administering most of the Residential, Landscape, and CII BMPs currently being offered to San Gabriel Valley Reporting Unit customers. Additional detailed descriptions of wholesaler DMM implementation can also be found in Metropolitan's 2010 RWMP, as well as Upper District's 2010 UWMP where appropriate. GSWC will continue to support Metropolitan activities and will focus on improving outreach to its customers and promoting awareness of the programs available to them.

Once the pending rate case is approved by the CPUC, GSWC will develop a prioritized water use efficiency program and implementation schedule for all customer service areas in the company focusing on systems with the highest SBX7-7 water use reduction targets, and those where specific conservation activities can be implemented that are locally cost-effective. Programs that are cost-effective to implement on a companywide basis will also be considered. At this time, all of the BMPs, are cost-effective for implementation in the San Gabriel Valley Reporting Unit, where the avoided cost of water is \$926 per acre-foot.

## 7.4.1 Residential DMMs

### 7.4.1.1 Residential Assistance Programs

GSWC has an audit program targeting high-use single-family (SF) and multi-family (MF) residential customers. GSWC identifies these customers based on billing data and contacts them to offer free audits. Audits are also offered to walk-in customers at the local customer service area office. Additional home audits are conducted as part of the school education program (Section 7.3.1.6). The number of residential audits performed by GSWC and the number of low-flow devices that were distributed are summarized in Table 7-5. Low-flow devices are available for free to customers at the GSWC office and are distributed to students as part of the free conservation kits they receive in the school education program.

Table 7-5: Residential Surveys and Retrofits					
	2006	2007	2008	2009	2010
<b>Single-Family Accounts</b>					
Surveys Offered	0	0	1,251	0	0
Surveys Completed	0	0	227	0	0
<b>Multi-Family Accounts</b>					
Surveys Offered	0	0	1,251	0	0
Surveys Completed	0	0	227	0	0
<b>Devices</b>					
Showerheads	569	0	2,234	0	0
Aerators	1,300	0	2,234	0	0

### Implementation Steps and Schedule

Over the next 5 years, GSWC will continue distributing low flow showerheads and aerators to customers, and offering audits to high-use SF and MF customers until saturation requirements are satisfied for this BMP. It is estimated that 175 devices per year will need to be installed in SF and MF residences. Once saturation requirements are met, GSWC will continue to offer the programs as required by the MOU.

### Methods Used to Evaluate Effectiveness and Water Savings

Effectiveness of implementation of this program is evaluated by GSWC by tracking customer participation rates in surveys and distribution of low flow showerheads. The following water savings estimates were developed using data provided by the CUWCC:

- Residential Assistance Surveys: According to the CUWCC, SF surveys are estimated to save 40 gpd and MF surveys are estimated to save 20 gpd. At 174 surveys per year, it is estimated that GSWC will save more than 300 ac-ft over the next 10 years.

- Plumbing Retrofit kits: Per the CUWCC, it is estimated that 7.7 gpd per unit is conserved from installation of low flow showerheads. At 75 percent saturation, the potential total savings is approximately 54 ac-ft over the next 10 years.

Program effectiveness and per capita use will continue to be monitored based on meter readings and billing data, and follow-up calls will be made to offer audits and other assistance to high-use customers. Implementation of the residential assistance programs BMP has no anticipated impacts on GSWC’s ability to further reduce demands.

#### 7.4.1.2 Landscape Water Surveys

GSWC offers landscape water surveys to high water-use SF and MF customers throughout the company. Since residential surveys include a landscape component, participation rates are included in the residential assistance program summary above. Introduction of the third tier of metered rates in late 2010 is expected to result in higher participation rates, and funding has been designated to improving program marketing.

#### Implementation Steps and Schedule

Residential assistance survey programs have a landscape component to them and are being implemented concurrently. A description of the proposed implementation strategy and schedule is provided in the section describing the Residential Assistance Program BMP.

#### Methods Used to Evaluate Effectiveness and Water Savings

See residential assistance programs description.

#### 7.4.1.3 High-Efficiency Clothes Washers

GSWC customers are eligible to participate in the HECW rebate program provided by Metropolitan, which has been available since 2003. Metropolitan has supplemented its HECW rebate using state or federal grants whenever possible. The water efficiency of clothes washers is represented by the “water factor,” which is a measure of the amount of water used to wash a standard load of laundry. Washers with a lower water factor save more water. Metropolitan has continued to transform the market by changing its program requirement to lower water factors. The program eligibility requirement is currently set at water factor 4.0, which saves over 10,000 gallons per year per washer over a conventional top loading washer. GSWC does not contribute funds to the HECW rebate program. The GSWC conservation webpage advertises the rebates and provides a link to the Metropolitan website for full program details. A summary of the HECW Rebates received by GSWC customers in the San Gabriel Valley Reporting Unit is provided in Table 7-6.

Table 7-6: HECW Rebates						
	2006	2007	2008	2009	2010	TOTAL
Rebates	44	0	149	0	282	475

Implementation Steps and Schedule

To comply with the BMP, rebates need to be issued to 104 customers per year in the San Gabriel Valley Reporting Unit until saturation requirements are met. GSWC intends to continue to participate in the HECW rebate program administered by Metropolitan and to increase program participation will increase marketing efforts to raise customer awareness that the program is being offered. GSWC will develop an updated conservation website, and prominently include HECW rebate incentive on future bill stuffers or other direct mail campaigns.

Methods Used to Evaluate Effectiveness and Water Savings

Metropolitan tracks customer participation in the HECW rebate program and estimates that 28 gallons per day are saved for each HECW installed. At the required implementation levels, it is estimated that GSWC will save a total of approximately 14 ac-ft from 104 annual HECW installations over the next 10 years. There are no anticipated impacts on GSWC’s ability to further reduce demands.

**7.4.1.4 WaterSense Specification (WSS) Toilets**

GSWC customers have been eligible to participate in the HET rebate program administered by Metropolitan since 2008. Metropolitan has provided incentives for toilet programs since 1988, including ultra-low-flush toilet (ULFT) rebates. Currently, Metropolitan only provides funding for high-efficiency toilets (1.28 gallons per flush or less), which use 20 percent less than ultra-low-flush toilets (1.6 gallons per flush). ULFTs are the current standard defined by the plumbing code. Metropolitan uses the EPA’s WaterSense list of tested toilets in its programs as qualifying models. The GSWC webpage for South Arcadia advertises the rebates and provides a link to the Metropolitan website for full details. The number of rebates issued by Metropolitan to GSWC San Gabriel Valley Reporting Unit customers is provided in Table 7-7.

Table 7-7: Toilet Rebates and Replacements Received by San Gabriel Valley Reporting Unit Customers					
Type	2006	2007	2008	2009	2010
<b>Single-Family</b>					
ULFT Rebate	350	0	11	0	0
HET Rebate	0	0	0	136	44
<b>Multi-Family</b>					
ULFT Rebate	0	0	9	0	0
HET Rebate	0	0	0	51	0

Implementation Steps and Schedule

To comply with the BMP, rebates need to be issued to 93 SF and 23 MF customers per year in the San Gabriel Valley Reporting Unit. GSWC intends to continue to participate in the HET rebate program administered by Metropolitan as described above. GSWC will also evaluate augmenting existing public outreach efforts through direct mail and enhanced website features to inform customers about current incentive opportunities and increase program participation.

## Methods Used to Evaluate Effectiveness and Water Savings

Metropolitan tracks customer participation in the HET rebate program to measure effectiveness. According to the CUWCC research and evaluation committee, it is estimated that 21.1 and 26.6 gallons per day are saved for each HECW installed in SF and MF units, respectively. It is estimated that GSWC will save approximately 141 ac-ft from HET installations completed over the next 10 years at required implementation levels of 93 SF and 23 MF installations per year. There are no anticipated impacts on GSWC's ability to further reduce demands.

### **7.4.1.5 WaterSense Specification for Residential Development**

Integration of WSS fixtures for new development will be accelerated by the 2010 California Green Building Standards Code (CAL Green Code), which became effective in January 2011. The CAL Green Code sets mandatory green building measures, including a 20 percent reduction in indoor water use, as well as dedicated meter requirements and regulations addressing landscape irrigation and design. Local jurisdictions, at a minimum, must adopt the mandatory measures; the CAL Green Code also identifies voluntary measures that set a higher standard of efficiency for possible adoption.

#### Implementation Exemption

GSWC is filing an exemption on implementation of the WSS specification for new developments due to lack of legal authority. As an investor-owned utility, GSWC does not have regulatory authority and cannot adopt ordinances or regulations; however, it does support standards that will achieve a reduction in indoor water use including implementation and use of WSS fixtures as well as adoption of the CAL Green Code by local jurisdictions, including Los Angeles County. GSWC will continue to support incentive programs for water efficient devices and standards.

The cost of implementing this BMP is non-quantifiable; therefore a cost-effectiveness evaluation was not completed.

### **7.4.1.6 Commercial, Industrial, and Institutional DMMs**

The Commercial, Industrial, and Institutional (CII) programs are implemented by Metropolitan on behalf of GSWC. Table 7-8 provides a summary of CII program participation from GSWC's San Gabriel Valley Reporting Unit customers from 2006 to 2010. GSWC customers are eligible to participate in Upper District and Metropolitan's CII Save-A-Buck Program for Southern California businesses. Those who qualify are eligible for rebates to help encourage water efficiency and conservation. Devices available for rebates include: high efficiency toilets, zero water and ultra low water urinals, connectionless food steamers, air-cooled ice machines (Tier III), cooling tower and pH conductivity controllers, water brooms, dry vacuum pumps. Additionally, the Save-A-Buck program offers rebates for outdoor landscaping equipment such as: weather based irrigation controllers, central computer irrigation controllers, rotating spray nozzles retrofits, and high efficiency large rotary nozzle retrofits.

Table 7-8: CII Programs

Program	2006	2007	2008	2009	2010
CII HET Rebates	0	0	2	0	0
CII ULFT Rebates	0	0	0	0	0
Dual Flush Toilets	0	0	0	0	0
CII Urinal Rebates	0	0	16	1	37
CII HECW Rebates	0	0	0	0	0
Cooling Tower Controllers	0	0	0	0	0
Cash for Grass	0	0	0	0	0

### Implementation Steps and Schedule

GSWC's goal for the next 3 to 5 years is to focus on advertising and outreach programs, including CII rebates, as described elsewhere in this chapter. If, after additional advertising efforts it is determined that Metropolitan's program is not meeting coverage requirements, GSWC will evaluate augmenting Metropolitan's program. To meet BMP requirements for the required 10 percent water savings (about 94 ac-ft/yr) by 2020, GSWC will need to support or augment Metropolitan's program to encourage customers to participate in rebate incentive programs. GSWC will also evaluate implementing additional CII water savings programs, such as industrial process water use reductions.

### Methods Used to Evaluate Effectiveness and Water Savings

Effectiveness of the CII program will be evaluated by tracking multiple parameters, including program participation, metered CII water use, high water users, and measuring water savings from of specific CII activities where practicable to show a water savings of at least 9 ac-ft per year. There are no anticipated impacts on GSWC's ability to further reduce demands.

#### **7.4.1.7 Large Landscape**

GSWC's large landscape program consists of identifying and contacting high-use customers, providing information and offering water use surveys, voluntary landscape water use budgets, and landscape training. The program is available to all large landscape customers free of charge. An increase in conservation pricing rates in 2011 is expected to prompt increased participation, and funding has been designated for improved program marketing.

Upper District's large landscape conservation program includes the Synthetic Turf Grant School Program. The Goal of the Synthetic Turf Grant Program is to assist schools with funding for retrofitting large landscaped areas with synthetic turf. Through this program, Upper District offers grants of up to \$75,000 per site to assist with the cost of installing synthetic turf. Since the start of the program in fiscal year 2005-06, five schools have participated in this program. Based on an estimated service life of 10 years for synthetic turf, the total annual water savings for the 5 synthetic turf programs is estimated at 53 acre-feet.

## Implementation Steps and Schedule

Implementation of this BMP will be improved by promoting existing incentive opportunities and raising customer awareness about existing audit program offerings. For the next 4 to 5 years, GSWC will work to increase program participation at schools and other institutional accounts to establish landscape water budgets and decrease overall water use. Additionally, GSWC will discuss with Metropolitan specific measures that could be implemented to encourage broader interest in the multiple CII programs that are currently being offered.

In order to meet BMP coverage requirements, GSWC/Metropolitan will need to develop evapotranspiration-based landscape water budgets for 9 accounts with dedicated irrigation meters per year. GSWC will also continue to offer landscape water use surveys to customers without dedicated irrigation meters. Devices such as weather based irrigation controllers (WBIC) and precision nozzles will also be distributed to mix-metered high water use customers who have been determined not to be water efficient.

## Methods Used to Evaluate Effectiveness and Water Savings

GSWC will track increased customer participation in the CII large landscape water budgeting and rebate programs. At the implementation rate described above, it is estimated that as much as 279 AF could be conserved by 2020 (Table 7-9). There are no anticipated impacts on GSWC's ability to further reduce demands.

Large Landscape Conservation Program	Units per Year	Water savings over next 10 Years (ac- ft)
CII WBIC Rebates	9	46
CII WBIC Direct Install	9	46
CII Precision Nozzles Distribution	1,330	85
Dedicated Irrigation Surveys	9	102
TOTAL	1357	279

## 7.5 SBX7-7 Compliance Strategy

The SBX7-7 water use baseline for the South Arcadia System is 131 gpcd, and the 2020 compliance goal is 105 gpcd, as detailed in Chapter 3. Several factors have contributed to a rapid reduction in gpcd over the past few years including the economic recession, recent mild climate conditions, implementation of a residential tiered conservation pricing structure and other conservation measures. Over the past 3 years there has been a recent 15 percent decline in gpcd in the South Arcadia System from 124 gpcd in 2008 to an estimated 106 gpcd in 2010. Therefore, the South Arcadia System is on track to meet its SBX7-7 goals, and will remain focused on maintaining these savings over the next 10 years.

However, if the gpcd begins to increase to previous levels, GSWC's continued commitment to complying with the CUWCC MOU and implementation of all BMPs should provide sufficient water savings to meet the goal of 105 gpcd. GSWC will assess implementation of a suite of

programs over the next 2 to 3 years to meet conservation targets companywide. Implementation levels and specific program offerings will vary by system depending on system goals, including existing implementation levels, demographics, and hydrologic characteristics.

GSWC is developing a companywide approach that will include assessment of options such as accelerating the current programs, and adding additional programmatic, regulatory and information-based activities to meet the requirements of SBX7-7. This systematic approach may allow GSWC to do more with less, in essence, administering overall conservation program operations from a centralized location while allowing local resources for direct implementation of BMPs and other water savings practices. Funding for all conservation activities is subject to approval by the CPUC before programs can be implemented. Some of the programs that may be considered by GSWC if needed to meet SBX7-7 requirements include financial incentives, regulatory approaches, and information elements. These efforts will be planned to build on existing programs and activities. Programs that may be implemented by 2014 on a companywide basis include the following:

### **Conservation Pricing**

GSWC is in the process of filing a General Rate Case application to increase tiered rates in its systems for residential and CII metered customers. If approved, increased tiered rates are expected to significantly increase water savings and participation in conservation incentive programs in many of GSWC's systems.

### **Financial Incentives**

Ongoing and/or additional financial incentives may be offered directly to customers by GSWC or in partnership with other agencies:

1. HECW rebates: Clothes washer rebates are already being implemented by Metropolitan on behalf of GSWC and will continue to provide measurable water savings.
2. Zero and low-flow urinal rebates: Rebates would include CII fixtures such as zero consumption and ultra-low volume urinals as well as CII specific HETs.
3. Expansion of fixture rebates to CII and MF customers in all systems: currently, the toilet rebate programs are only available to CII and MF customers in select systems. GSWC will evaluate expansion of the programs to all customers and there will be increased focus on marketing to large Home Owner Association accounts.
4. Larger variety of fixture rebates: This may include hot water distribution tanks, pressurized water brooms and high-pressure spray nozzles.
5. Cash-for-grass rebates: Customers will be provided with an incentive of up to \$0.5 per square-foot of turf removed and replaced with landscape appropriate plants. The program is being considered for both residential and CII customers; it is currently being offered in select GSWC systems.
6. Expansion of large landscape program: GSWC will be evaluating the effectiveness of the current landscape program and making adjustments depending on the results. If the program is found to be successful at meeting reduction targets, the program may be accelerated and more devices will be offered, such as precision nozzles.

## **Building Code/New Standards**

Although it does not have regulatory authority, GSWC supports adoption of new building standards, beyond those currently in code to enhance conservation. If all current code changes that improve the efficiency of fixtures and design are implemented, it could account for up to 60 percent of the expected reduction in demand. Some of the changes proposed will be captured in the CAL Green Code, adopted January 2011 as well as SB407 (Plumbing Retrofit on Resale) and standard updates for toilets and washers that are being phased in.

## **Information/Tracking**

Information and tracking represents a new element to the existing programs focusing on collecting and processing information and ensuring that the programs are on track to meet the goals. These activities will also help in program design by providing more robust information about customers and their water use patterns. The immediate priorities include:

1. **Automatic Meter Reading (AMR):** GSWC currently follows the requirements of CPUC General Order 103-A, which prescribe minimum water system design, operation and maintenance standards for water utilities, and includes requirements for calibrating, testing frequency, and replacing water meters. GSWC will continue to follow this standard and consider the use of AMR in its systems as a priority to obtain real time data for water usage and identify customer-side leaks. This information can also help GSWC monitor the impacts of existing programs, make adjustments where necessary and develop new programs.
2. **Water Use Tracking Tools:** Another priority, GSWC will consider plans to design and develop database tracking tools for water savings associated with its conservation plans and increase flexibility in adding or changing program elements.

GSWC is developing a companywide approach that will include assessment of options such as accelerating the current programs, and adding additional programmatic, regulatory and information-based activities to meet the requirements of SBX7-7. This systematic approach may allow GSWC to do more with less, in essence, administering overall conservation program operations from a centralized location while allowing local resources for direct implementation of BMPs and other water savings practices. Funding for all conservation activities is subject to approval by the CPUC before programs can be implemented.

### **7.5.1 Consideration of Economic Impacts**

Since funding for all conservation activities is subject to approval by the CPUC before programs can be implemented, the economic impacts of complying with SBX7-7 have not yet been fully determined. However, an economic analysis to help develop programs that avoid placing disproportionate burdens on any single sector will be prepared during development of the SBX7-7 water use efficiency program. The annual costs associated with implementing all traditional CUWCC programmatic BMPs cannot be determined because it represents the combined efforts of Metropolitan, Upper District, and GSWC, where funding levels, incentives and particular measures change from year to year. To continue benefitting customers, GSWC will take advantage of applicable partnership programs that will make conservation programs more efficient and cost effective.

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## Chapter 8: Water Shortage Contingency Plan

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Section 10632 of the Act details the requirements of the water-shortage contingency analysis. The Act states the following:

*Section 10632. The plan shall provide an urban water-shortage contingency analysis that includes each of the following elements that are within the authority of the urban water supplier:*

- (a) Stages of action to be undertaken by the urban water supplier in response to water supply shortages, including up to a 50 percent reduction in water supply, and an outline of specific water supply conditions, which are applicable to each stage.*
- (b) An estimate of the minimum water supply available during each of the next three water years based on the driest three-year historic sequence for the agency's water supply.*
- (c) Actions to be undertaken by the urban water supplier to prepare for, and implement during, a catastrophic interruption of water supplies including, but not limited to, a regional power outage, an earthquake, or other disaster.*
- (d) Additional, mandatory prohibitions against specific water-use practices during water shortages, including, but not limited to, prohibiting the use of potable water for street cleaning.*
- (e) Consumption reduction methods in the most restrictive stages. Each urban water supplier may use any type of consumption reduction methods in its water shortage contingency analysis that would reduce water use, are appropriate for its area, and have the ability to achieve a water-use reduction consistent with up to a 50 percent reduction in water supply.*
- (f) Penalties or charges for excessive use, where applicable.*
- (g) An analysis of the impacts of each of the actions and conditions described in subdivisions (a) to (f), inclusive, on the revenues and expenditures of the urban water supplier, and proposed measures to overcome those impacts, such as the development of reserves and rate adjustments.*
- (h) A draft water shortage contingency resolution or ordinance.*
- (i) A mechanism for determining actual reductions in water use pursuant to the urban water shortage contingency analysis.*

This chapter documents GSWC's Water Shortage Contingency Plan for the South Arcadia System per requirements of Section 10632 of the Act. The Water Shortage Contingency Plan is based on Rule No. 14.1 Mandatory Water Conservation, Restrictions and Ratings Program adopted by GSWC and on file with CPUC. Appendix D contains the full text of the rule.

The purpose of the Water Shortage Contingency Plan is to provide a plan of action to be followed during the various stages of a water shortage. The plan includes the following elements: action stages, estimate of minimum supply available, actions to be implemented during a catastrophic interruption of water supplies, prohibitions, penalties and consumption reduction methods, revenue impacts of reduced sales, and water use monitoring procedures.

### 8.1 Action Stages

The Act requires documentation of actions to be undertaken during a water shortage. GSWC has developed actions to be undertaken in response to water supply shortages, including up to a 50 percent reduction in water supply. Since GSWC is an investor-owned water utility, CPUC has jurisdiction over GSWC, and implementation of any action is dependent upon approval of the CPUC, especially for implementing mandatory water use restriction. Section 357 of the California Water Code requires that suppliers subject to regulation by the CPUC secure

approval before imposing water consumption regulations and restrictions required by water supply shortage emergencies.

GSWC has grouped the actions to be taken during a water shortage into four stages, I through IV, based on the water supply conditions. Table 8-1 describes the water supply shortage stages and conditions. The stages will be implemented during water supply shortages according to shortage level, ranging from 5 percent shortage in Stage I to 50 percent shortage in Stage IV. A water shortage declaration will be made by the American State Water Company Board. The water shortage stage determination during a water supply shortage will be made by the Regional Vice President Customer Service.

Table 8-1: Water Supply Shortage Stages and Conditions

Stage No.	Water Shortage Supply Conditions	Shortage Percent
I	Minimum	5 - 10
II	Moderate	10 - 20
III	Severe	20 - 35
IV	Critical	35 - 50

Note:

This table is based on the DWR Guidebook Table 35.

The actions to be undertaken during each stage include, but are not limited to, the following:

**Stage I (5 - 10 percent shortage)** – Water alert conditions are declared and voluntary conservation is encouraged. The drought situation is explained to the public and governmental bodies. GSWC explains the possible subsequent water shortage stages in order to forecast possible future actions for the customer base. The activities performed by GSWC during this stage include, but are not limited to:

- Public information campaign consisting of distribution of literature, speaking engagements, website updates, bill inserts, and conversation messages printed in local newspapers
- Educational programs in area schools
- Conservation Hotline, a toll-free number with trained Conservation Representatives to answer customer questions about conservation and water use efficiency.

**Stage II (10 - 20 percent shortage)** – Stage II will include actions undertaken in Stage I. In addition, GSWC may propose voluntary conservation allotments and/or require mandatory conservation rules. The severity of actions depends upon the percent shortage. The level of voluntary or mandatory water use reduction requested from the customers is also based on the severity. It needs to be noted that prior to implementation of any mandatory reductions, GSWC must obtain approval from CPUC. If necessary, GSWC may also support passage of drought ordinances by appropriate governmental agencies.

**Stage III (20 - 35 percent shortage)** – Stage III is a severe shortage that entails or includes allotments and mandatory conservation rules. This phase becomes effective upon notification by the GSWC that water usage is to be reduced by a mandatory percentage. GSWC implements mandatory reductions after receiving approval from CPUC. Rate changes are implemented to penalize excess usage. Water use restrictions are put into effect, i.e. prohibited uses can include restrictions of daytime hours for watering, excessive watering resulting in gutter flooding, using a hose without a shutoff device, use of non-recycling fountains, washing down sidewalks or patios, unrepaired leaks, etc. GSWC monitors production weekly for compliance with necessary reductions. Use of flow restrictors is implemented if abusive practices are documented.

**Stage IV (35 - 50 percent shortage)** – This is a critical shortage that includes all steps taken in prior stages regarding allotments and mandatory conservation. All activities are intensified and production is monitored daily by GSWC for compliance with necessary reductions.

## 8.2 Minimum Supply

The Act requires an estimate of the minimum water supply available during each of the next three water years based on the driest three-year historic sequence for GSWC's water supply sources.

Table 8-2 summarizes the minimum volume of water available from each source during the next three-years based on multiple-dry water years and normal water year. The driest three-year historic sequence is provided in Chapter 6. The water supply quantities for 2011 to 2013 are calculated by linearly interpolating between the projected water supplies of 2010 and 2015 for normal years. The water supplies for 2010 and 2015 are presented in Chapter 4.

It is assumed that the multiple-dry year supplies will be the same as those for the normal years because local groundwater will meet projected demands under all anticipated hydrologic conditions.

GSWC's supply for the South Arcadia System is expected to be 100 percent reliable from 2011 to 2013. This reliability is a result of GSWC's existing adjudicated groundwater rights in the Main San Gabriel Groundwater Basin, and groundwater replenishment provisions within the basin.

Source	2011	2012	2013	2010 Average Year
Purchased water	0	0	0	0
Groundwater	3,563	3,731	3,899	3,395
Recycled water	0	0	0	0
Total	3,563	3,731	3,899	3,395

Note:

Table format based on DWR Guidebook Table 31.

### 8.3 Catastrophic Supply Interruption Plan

The Act requires documentation of actions to be undertaken by the water supplier to prepare for and implement, during a catastrophic interruption of water supplies. A catastrophic interruption constitutes a proclamation of a water shortage and could result from any event (either natural or man-made) that causes a water shortage severe enough to classify as either a Stage III or Stage IV water supply shortage condition.

In order to prepare for catastrophic events, GSWC has prepared an Emergency Response Plan (ERP) in accordance with other state and federal regulations. The purpose of this plan is to design actions necessary to minimize the impacts of supply interruptions due to catastrophic events.

The ERP coordinates overall company response to a disaster in any and all of its districts. In addition, the ERP requires each district to have a local disaster plan that coordinates emergency responses with other agencies in the area. The ERP also provides details on actions to be undertaken during specific catastrophic events. Table 8-3 provides a summary of actions cross-referenced against specific catastrophes for three of the most common possible catastrophic events: regional power outage, earthquake, and malevolent acts.

In addition to specific actions to be undertaken during a catastrophic event, GSWC performs maintenance activities, such as annual inspections for earthquake safety, and budgets for spare items, such as auxiliary generators, to prepare for potential events.

Table 8-3: Summary of Actions for Catastrophic Events

Possible Catastrophe	Summary of Actions
Regional power outage	<ul style="list-style-type: none"> <li>• Isolate areas that will take the longest to repair and/or present a public health threat. Arrange to provide emergency water.</li> <li>• Establish water distribution points and ration water if necessary.</li> <li>• If water service is restricted, attempt to provide potable water tankers or bottled water to the area.</li> <li>• Make arrangements to conduct bacteriological tests, in order to determine possible contamination.</li> <li>• Utilize backup power supply to operate pumps in conjunction with elevated storage.</li> </ul>
Earthquake	<ul style="list-style-type: none"> <li>• Assess the condition of the water supply system.</li> <li>• Complete the damage assessment checklist for reservoirs, water treatment plants, wells and boosters, system transmission and distribution.</li> <li>• Coordinate with Cal EMA utilities group or fire district to identify immediate fire fighting needs.</li> <li>• Isolate areas that will take the longest to repair and/or present a public health threat. Arrange to provide emergency water.</li> <li>• Prepare report of findings, report assessed damages, advise as to materials of immediate need and identify priorities including hospitals, schools and other emergency operation centers.</li> <li>• Take actions to preserve storage.</li> <li>• Determine any health hazard of the water supply and issue any “Boil Water Order” or “Unsafe Water Alert” notification to the customers, if necessary.</li> <li>• Cancel the order or alert information after completing comprehensive water quality testing.</li> <li>• Make arrangements to conduct bacteriological tests, in order to determine possible contamination.</li> </ul>
Malevolent acts	<ul style="list-style-type: none"> <li>• Assess threat or actual intentional contamination of the water system.</li> <li>• Notify local law enforcement to investigate the validity of the threat.</li> <li>• Get notification from public health officials if potential water contamination</li> <li>• Determine any health hazard of the water supply and issue any “Boil Water Order” or “Unsafe Water Alert” notification to the customers, if necessary.</li> <li>• Assess any structural damage from an intentional act.</li> <li>• Isolate areas that will take the longest to repair and or present a public health threat. Arrange to provide emergency water.</li> </ul>

## 8.4 Prohibitions, Penalties, and Consumption Reduction Methods

The Act requires an analysis of mandatory prohibitions, penalties, and consumption reduction methods against specific water use practices which may be considered excessive during water shortages. Given that GSWC is an investor-owned entity, it does not have the authority to pass any ordinance enacting specific prohibitions or penalties. In order to enact or rescind any prohibitions or penalties, GSWC would seek approval from CPUC to enact or rescind Rule No. 14.1, Mandatory Conservation and Rationing, which is included in Appendix D. When Rule No. 14.1 has expired or is not in effect, mandatory conservation and rationing measures will not be in force.

Rule No. 14.1 details the various prohibitions and sets forth water use violation fines, charges for removal of flow restrictors, as well as establishes the period during which mandatory conservation and rationing measures will be in effect. The prohibitions on various wasteful water uses, include, but are not limited to, the hose washing of sidewalks and driveways using potable water, and cleaning for filling decorative fountains. Table 8-4 summarizes the various prohibitions and the stages during which the prohibition becomes mandatory.

Examples of Prohibitions	Stage When Prohibition Becomes Mandatory
Uncorrected plumbing leaks	II, III, IV
Watering which results in flooding or run-off in gutters, waterways, patios, driveway, or streets	II, III, IV
Washing aircraft, cars, buses, boats, trailers, or other vehicles without a positive shut-off nozzle on the outlet end of the hose	II, III, IV
Washing buildings, structures, sidewalks, walkways, driveways, patios, parking lots, tennis courts, or other hard-surfaced areas in a manner which results in excessive run-off	II, III, IV
Irrigation of non-permanent agriculture	II, III, IV
Use of water for street watering with trucks or for construction purposes unless no other source of water or other method can be used	II, III, IV
Use of water for decorative fountains or the filling or topping off of decorative lakes or ponds	II, III, IV
Filling or refilling of swimming pools	II, III, IV

Note:

This table is based on the DWR Guidebook Table 36.

In addition to prohibitions during water supply shortage events requiring a voluntary or mandatory program, GSWC will make available to its customers water conservation kits as required by GSWC's Rule No. 20. GSWC will notify all customers of the availability of conservation kits.

In addition to prohibitions, Rule No. 14.1 provides penalties and charges for excessive water use. The enactment of these penalties and charges is contingent on approval of Rule 14.1 implementation by the CPUC. When the rule is in effect, violators receive one verbal and one written warning after which a flow-restricting device may be installed in the violator's service for a reduction of up to 50 percent of normal flow or 6 ccf per month, whichever is greater. Table 8-5 summarizes the penalties and charges and the stage during which they take effect.

Table 8-5: Summary of Penalties and Charges for Excessive Use	
Penalties or Charges	Stage When Penalty Takes Effect
Penalties for not reducing consumption	III, IV
Charges for excess use	III, IV
Flat fine; Charge per unit over allotment	III, IV
Flow restriction	III, IV
Termination of service	III, IV

Note:

This table is based on the DWR Guidebook Table 38.

In addition to prohibitions and penalties, GSWC can use other consumption reduction methods to reduce water use up to 50 percent. Based on the requirements of the Act, Table 8-6 summarizes the methods that can be used by GSWC in order to enforce a reduction in consumption, where necessary.

Table 8-6: Summary of Consumption Reduction Methods

Consumption Reduction Method	Stage When Method Takes Effect	Projected Reduction Percentage
Demand reduction program	All Stages	N/A
Reduce pressure in water lines; Flow restriction	III, IV	N/A
Restrict building permits; Restrict for only priority uses	II, III, IV	N/A
Use prohibitions	II, III, IV	N/A
Water shortage pricing; Per capita allotment by customer type	II, IV	N/A
Plumbing fixture replacement	All Stages	N/A
Voluntary rationing	II	N/A
Mandatory rationing	III, IV	N/A
Incentives to reduce water consumption; Excess use penalty	III, IV	N/A
Water conservation kits	All Stages	N/A
Education programs	All Stages	N/A
Percentage reduction by customer type	III, IV	N/A

Note:

This table is based on the DWR Guidebook Table 37.

## 8.5 Revenue Impacts of Reduced Sales

Section 10632(g) of the Act requires an analysis of the impacts of each of the actions taken for conservation and water restriction on the revenues and expenditures of the water supplier. Because GSWC is an investor-owned water utility and, as such, is regulated by the CPUC, the CPUC authorizes it to establish memorandum accounts to track expenses and revenue shortfalls caused by both mandatory rationing and voluntary conservation efforts. Utilities with CPUC-approved water management plans are authorized to implement a surcharge to recover revenue shortfalls recorded in their drought memorandum accounts. Table 8-7 provides a summary of actions with associated revenue reductions; while Table 8-8 provides a summary of actions and conditions that impact expenditures. Table 8-9 summarizes the proposed measures to overcome revenue impacts. Table 8-10 provides a summary of the proposed measures to overcome expenditure impacts.

Table 8-7: Summary of Actions and Conditions that Impact Revenue	
Type	Anticipated Revenue Reduction
Reduced sales	Reduction in revenue will be based on the decline in water sales and the corresponding quantity tariff rate
Recovery of revenues with CPUC-approved surcharge	Higher rates may result in further decline in water usage and further reduction in revenue

Table 8-8: Summary of Actions and Conditions that Impact Expenditures	
Category	Anticipated Cost
Increased staff cost	Salaries and benefits for new hires required to administer and implement water shortage program
Increased O&M cost	Operating and maintenance costs associated with alternative sources of water supply
Increased cost of supply and treatment	Purchase and treatment costs of new water supply

Table 8-9: Proposed Measures to Overcome Revenue Impacts	
Names of Measures	Summary of Effects
Obtain CPUC-approved surcharge	Allows for recovery of revenue shortfalls brought on by water shortage program
Penalties for excessive water use	Obtain CPUC approval to use penalties to offset portion of revenue shortfall

Table 8-10: Proposed Measures to Overcome Expenditure Impacts	
Names of Measures	Summary of Effects
Obtain CPUC-approved surcharge	Allows for recovery of increased expenditures brought on by water shortage program
Penalties for excessive water use	Obtain CPUC approval to use penalties to offset portion of increased expenditures

## 8.6 Water-Use Monitoring Procedures

The Act asks for an analysis of mechanisms for determining actual reduction in water use when the Water Shortage Contingency Plan is in effect. Table 8-11 lists the possible mechanisms used by GSWC to monitor water use and the quality of data expected.

Table 8-11: Water-Use Monitoring Mechanisms	
Mechanisms for Determining Actual Reductions	Type and Quality of Data Expected
Customer meter readings	Hourly/daily/monthly water consumption data for a specific user depending on frequency of readings
Production meter readings	Hourly/daily/monthly water production depending on frequency of readings; correlates to water use plus system losses

In addition to the specific actions that GSWC can undertake to verify level of conservation, GSWC can monitor long-term water use through regular bi-monthly meter readings, which give GSWC the ability to flag exceptionally high usage for verification of water loss or abuse.

## Chapter 9: References

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## Appendix A

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Urban Water Management Planning Act



# CALIFORNIA WATER CODE DIVISION 6

## PART 2.6. URBAN WATER MANAGEMENT PLANNING

All California Codes have been updated to include the 2010 Statutes.

CHAPTER 1.	GENERAL DECLARATION AND POLICY	<a href="#">10610-10610.4</a>
CHAPTER 2.	DEFINITIONS	<a href="#">10611-10617</a>
CHAPTER 3.	URBAN WATER MANAGEMENT PLANS	
Article 1.	General Provisions	<a href="#">10620-10621</a>
Article 2.	Contents of Plans	<a href="#">10630-10634</a>
Article 2.5.	Water Service Reliability	<a href="#">10635</a>
Article 3.	Adoption and Implementation of Plans	<a href="#">10640-10645</a>
CHAPTER 4.	MISCELLANEOUS PROVISIONS	<a href="#">10650-10656</a>

### WATER CODE

#### SECTION 10610-10610.4

**10610.** This part shall be known and may be cited as the "Urban Water Management Planning Act."

**10610.2.** (a) The Legislature finds and declares all of the following:

- (1) The waters of the state are a limited and renewable resource subject to ever-increasing demands.
- (2) The conservation and efficient use of urban water supplies are of statewide concern; however, the planning for that use and the implementation of those plans can best be accomplished at the local level.
- (3) A long-term, reliable supply of water is essential to protect the productivity of California's businesses and economic climate.
- (4) As part of its long-range planning activities, every urban water supplier should make every effort to ensure the appropriate level of reliability in its water service sufficient to meet the needs of its various categories of customers during normal, dry, and multiple dry water years.
- (5) Public health issues have been raised over a number of contaminants that have been identified in certain local and imported water supplies.
- (6) Implementing effective water management strategies, including groundwater storage projects and recycled water projects, may require specific water quality and salinity targets for meeting groundwater basins water quality objectives and promoting beneficial use of recycled water.
- (7) Water quality regulations are becoming an increasingly important factor in water agencies' selection of raw water sources, treatment alternatives, and modifications to existing treatment facilities.
- (8) Changes in drinking water quality standards may also impact the usefulness of water supplies and may ultimately impact supply reliability.
- (9) The quality of source supplies can have a significant impact

on water management strategies and supply reliability.

(b) This part is intended to provide assistance to water agencies in carrying out their long-term resource planning responsibilities to ensure adequate water supplies to meet existing and future demands for water.

**10610.4.** The Legislature finds and declares that it is the policy of the state as follows:

(a) The management of urban water demands and efficient use of water shall be actively pursued to protect both the people of the state and their water resources.

(b) The management of urban water demands and efficient use of urban water supplies shall be a guiding criterion in public decisions.

(c) Urban water suppliers shall be required to develop water management plans to actively pursue the efficient use of available supplies.

## **WATER CODE**

### **SECTION 10611-10617**

**10611.** Unless the context otherwise requires, the definitions of this chapter govern the construction of this part.

**10611.5.** "Demand management" means those water conservation measures, programs, and incentives that prevent the waste of water and promote the reasonable and efficient use and reuse of available supplies.

**10612.** "Customer" means a purchaser of water from a water supplier who uses the water for municipal purposes, including residential, commercial, governmental, and industrial uses.

**10613.** "Efficient use" means those management measures that result in the most effective use of water so as to prevent its waste or unreasonable use or unreasonable method of use.

**10614.** "Person" means any individual, firm, association, organization, partnership, business, trust, corporation, company, public agency, or any agency of such an entity.

**10615.** "Plan" means an urban water management plan prepared pursuant to this part. A plan shall describe and evaluate sources of supply, reasonable and practical efficient uses, reclamation and demand management activities. The components of the plan may vary according to an individual community or area's characteristics and its capabilities to efficiently use and conserve water. The plan shall address measures for residential, commercial, governmental, and industrial water demand management as set forth in Article 2 (commencing with Section 10630) of Chapter 3. In addition, a strategy and time schedule for implementation shall be included in the plan.

**10616.** "Public agency" means any board, commission, county, city

and county, city, regional agency, district, or other public entity.

**10616.5.** "Recycled water" means the reclamation and reuse of wastewater for beneficial use.

**10617.** "Urban water supplier" means a supplier, either publicly or privately owned, providing water for municipal purposes either directly or indirectly to more than 3,000 customers or supplying more than 3,000 acre-feet of water annually. An urban water supplier includes a supplier or contractor for water, regardless of the basis of right, which distributes or sells for ultimate resale to customers. This part applies only to water supplied from public water systems subject to Chapter 4 (commencing with Section 116275) of Part 12 of Division 104 of the Health and Safety Code.

## **WATER CODE**

### **SECTION 10620-10621**

**10620.** (a) Every urban water supplier shall prepare and adopt an urban water management plan in the manner set forth in Article 3 (commencing with Section 10640).

(b) Every person that becomes an urban water supplier shall adopt an urban water management plan within one year after it has become an urban water supplier.

(c) An urban water supplier indirectly providing water shall not include planning elements in its water management plan as provided in Article 2 (commencing with Section 10630) that would be applicable to urban water suppliers or public agencies directly providing water, or to their customers, without the consent of those suppliers or public agencies.

(d) (1) An urban water supplier may satisfy the requirements of this part by participation in areawide, regional, watershed, or basinwide urban water management planning where those plans will reduce preparation costs and contribute to the achievement of conservation and efficient water use.

(2) Each urban water supplier shall coordinate the preparation of its plan with other appropriate agencies in the area, including other water suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable.

(e) The urban water supplier may prepare the plan with its own staff, by contract, or in cooperation with other governmental agencies.

(f) An urban water supplier shall describe in the plan water management tools and options used by that entity that will maximize resources and minimize the need to import water from other regions.

**10621.** (a) Each urban water supplier shall update its plan at least once every five years on or before December 31, in years ending in five and zero.

(b) Every urban water supplier required to prepare a plan pursuant to this part shall, at least 60 days prior to the public hearing on the plan required by Section 10642, notify any city or county within which the supplier provides water supplies that the urban water

supplier will be reviewing the plan and considering amendments or changes to the plan. The urban water supplier may consult with, and obtain comments from, any city or county that receives notice pursuant to this subdivision.

(c) The amendments to, or changes in, the plan shall be adopted and filed in the manner set forth in Article 3 (commencing with Section 10640).

## **WATER CODE**

### **SECTION 10630-10634**

**10630.** It is the intention of the Legislature, in enacting this part, to permit levels of water management planning commensurate with the numbers of customers served and the volume of water supplied.

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

(a) Describe the service area of the supplier, including current and projected population, climate, and other demographic factors affecting the supplier's water management planning. The projected population estimates shall be based upon data from the state, regional, or local service agency population projections within the service area of the urban water supplier and shall be in five-year increments to 20 years or as far as data is available.

(b) Identify and quantify, to the extent practicable, the existing and planned sources of water available to the supplier over the same five-year increments described in subdivision (a). If groundwater is identified as an existing or planned source of water available to the supplier, all of the following information shall be included in the plan:

(1) A copy of any groundwater management plan adopted by the urban water supplier, including plans adopted pursuant to Part 2.75 (commencing with Section 10750), or any other specific authorization for groundwater management.

(2) A description of any groundwater basin or basins from which the urban water supplier pumps groundwater. For those basins for which a court or the board has adjudicated the rights to pump groundwater, a copy of the order or decree adopted by the court or the board and a description of the amount of groundwater the urban water supplier has the legal right to pump under the order or decree. For basins that have not been adjudicated, information as to whether the department has identified the basin or basins as overdrafted or has projected that the basin will become overdrafted if present management conditions continue, in the most current official departmental bulletin that characterizes the condition of the groundwater basin, and a detailed description of the efforts being undertaken by the urban water supplier to eliminate the long-term overdraft condition.

(3) A detailed description and analysis of the location, amount, and sufficiency of groundwater pumped by the urban water supplier for the past five years. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.

(4) A detailed description and analysis of the amount and location of groundwater that is projected to be pumped by the urban water supplier. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.

(c) (1) Describe the reliability of the water supply and vulnerability to seasonal or climatic shortage, to the extent practicable, and provide data for each of the following:

- (A) An average water year.
- (B) A single dry water year.
- (C) Multiple dry water years.

(2) For any water source that may not be available at a consistent level of use, given specific legal, environmental, water quality, or climatic factors, describe plans to supplement or replace that source with alternative sources or water demand management measures, to the extent practicable.

(d) Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis.

(e) (1) Quantify, to the extent records are available, past and current water use, over the same five-year increments described in subdivision (a), and projected water use, identifying the uses among water use sectors, including, but not necessarily limited to, all of the following uses:

- (A) Single-family residential.
- (B) Multifamily.
- (C) Commercial.
- (D) Industrial.
- (E) Institutional and governmental.
- (F) Landscape.
- (G) Sales to other agencies.
- (H) Saline water intrusion barriers, groundwater recharge, or conjunctive use, or any combination thereof.

(I) Agricultural.

(2) The water use projections shall be in the same five-year increments described in subdivision (a).

(f) Provide a description of the supplier's water demand management measures. This description shall include all of the following:

(1) A description of each water demand management measure that is currently being implemented, or scheduled for implementation, including the steps necessary to implement any proposed measures, including, but not limited to, all of the following:

- (A) Water survey programs for single-family residential and multifamily residential customers.
- (B) Residential plumbing retrofit.
- (C) System water audits, leak detection, and repair.
- (D) Metering with commodity rates for all new connections and retrofit of existing connections.
- (E) Large landscape conservation programs and incentives.
- (F) High-efficiency washing machine rebate programs.
- (G) Public information programs.
- (H) School education programs.
- (I) Conservation programs for commercial, industrial, and institutional accounts.

- (J) Wholesale agency programs.
- (K) Conservation pricing.
- (L) Water conservation coordinator.
- (M) Water waste prohibition.
- (N) Residential ultra-low-flush toilet replacement programs.

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

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

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

(g) An evaluation of each water demand management measure listed in paragraph (1) of subdivision (f) that is not currently being implemented or scheduled for implementation. In the course of the evaluation, first consideration shall be given to water demand management measures, or combination of measures, that offer lower incremental costs than expanded or additional water supplies. This evaluation shall do all of the following:

(1) Take into account economic and noneconomic factors, including environmental, social, health, customer impact, and technological factors.

(2) Include a cost-benefit analysis, identifying total benefits and total costs.

(3) Include a description of funding available to implement any planned water supply project that would provide water at a higher unit cost.

(4) Include a description of the water supplier's legal authority to implement the measure and efforts to work with other relevant agencies to ensure the implementation of the measure and to share the cost of implementation.

(h) Include a description of all water supply projects and water supply programs that may be undertaken by the urban water supplier to meet the total projected water use as established pursuant to subdivision (a) of Section 10635. The urban water supplier shall include a detailed description of expected future projects and programs, other than the demand management programs identified pursuant to paragraph (1) of subdivision (f), that the urban water supplier may implement to increase the amount of the water supply available to the urban water supplier in average, single-dry, and multiple-dry water years. The description shall identify specific projects and include a description of the increase in water supply that is expected to be available from each project. The description shall include an estimate with regard to the implementation timeline for each project or program.

(i) Describe the opportunities for development of desalinated water, including, but not limited to, ocean water, brackish water, and groundwater, as a long-term supply.

(j) For purposes of this part, urban water suppliers that are members of the California Urban Water Conservation Council shall be deemed in compliance with the requirements of subdivisions (f) and (g) by complying with all the provisions of the "Memorandum of Understanding Regarding Urban Water Conservation in California,"

dated December 10, 2008, as it may be amended, and by submitting the annual reports required by Section 6.2 of that memorandum.

(k) Urban water suppliers that rely upon a wholesale agency for a source of water shall provide the wholesale agency with water use projections from that agency for that source of water in five-year increments to 20 years or as far as data is available. The wholesale agency shall provide information to the urban water supplier for inclusion in the urban water supplier's plan that identifies and quantifies, to the extent practicable, the existing and planned sources of water as required by subdivision (b), available from the wholesale agency to the urban water supplier over the same five-year increments, and during various water-year types in accordance with subdivision (c). An urban water supplier may rely upon water supply information provided by the wholesale agency in fulfilling the plan informational requirements of subdivisions (b) and (c).

**10631.1.** (a) The water use projections required by Section 10631 shall include projected water use for single-family and multifamily residential housing needed for lower income households, as defined in Section 50079.5 of the Health and Safety Code, as identified in the housing element of any city, county, or city and county in the service area of the supplier.

(b) It is the intent of the Legislature that the identification of projected water use for single-family and multifamily residential housing for lower income households will assist a supplier in complying with the requirement under Section 65589.7 of the Government Code to grant a priority for the provision of service to housing units affordable to lower income households.

**10631.5.** (a) (1) Beginning January 1, 2009, the terms of, and eligibility for, a water management grant or loan made to an urban water supplier and awarded or administered by the department, state board, or California Bay-Delta Authority or its successor agency shall be conditioned on the implementation of the water demand management measures described in Section 10631, as determined by the department pursuant to subdivision (b).

(2) For the purposes of this section, water management grants and loans include funding for programs and projects for surface water or groundwater storage, recycling, desalination, water conservation, water supply reliability, and water supply augmentation. This section does not apply to water management projects funded by the federal American Recovery and Reinvestment Act of 2009 (Public Law 111-5).

(3) Notwithstanding paragraph (1), the department shall determine that an urban water supplier is eligible for a water management grant or loan even though the supplier is not implementing all of the water demand management measures described in Section 10631, if the urban water supplier has submitted to the department for approval a schedule, financing plan, and budget, to be included in the grant or loan agreement, for implementation of the water demand management measures. The supplier may request grant or loan funds to implement the water demand management measures to the extent the request is consistent with the eligibility requirements applicable to the water management funds.

(4) (A) Notwithstanding paragraph (1), the department shall

determine that an urban water supplier is eligible for a water management grant or loan even though the supplier is not implementing all of the water demand management measures described in Section 10631, if an urban water supplier submits to the department for approval documentation demonstrating that a water demand management measure is not locally cost effective. If the department determines that the documentation submitted by the urban water supplier fails to demonstrate that a water demand management measure is not locally cost effective, the department shall notify the urban water supplier and the agency administering the grant or loan program within 120 days that the documentation does not satisfy the requirements for an exemption, and include in that notification a detailed statement to support the determination.

(B) For purposes of this paragraph, "not locally cost effective" means that the present value of the local benefits of implementing a water demand management measure is less than the present value of the local costs of implementing that measure.

(b) (1) The department, in consultation with the state board and the California Bay-Delta Authority or its successor agency, and after soliciting public comment regarding eligibility requirements, shall develop eligibility requirements to implement the requirement of paragraph (1) of subdivision (a). In establishing these eligibility requirements, the department shall do both of the following:

(A) Consider the conservation measures described in the Memorandum of Understanding Regarding Urban Water Conservation in California, and alternative conservation approaches that provide equal or greater water savings.

(B) Recognize the different legal, technical, fiscal, and practical roles and responsibilities of wholesale water suppliers and retail water suppliers.

(2) (A) For the purposes of this section, the department shall determine whether an urban water supplier is implementing all of the water demand management measures described in Section 10631 based on either, or a combination, of the following:

(i) Compliance on an individual basis.

(ii) Compliance on a regional basis. Regional compliance shall require participation in a regional conservation program consisting of two or more urban water suppliers that achieves the level of conservation or water efficiency savings equivalent to the amount of conservation or savings achieved if each of the participating urban water suppliers implemented the water demand management measures. The urban water supplier administering the regional program shall provide participating urban water suppliers and the department with data to demonstrate that the regional program is consistent with this clause. The department shall review the data to determine whether the urban water suppliers in the regional program are meeting the eligibility requirements.

(B) The department may require additional information for any determination pursuant to this section.

(3) The department shall not deny eligibility to an urban water supplier in compliance with the requirements of this section that is participating in a multiagency water project, or an integrated regional water management plan, developed pursuant to Section 75026 of the Public Resources Code, solely on the basis that one or more of

the agencies participating in the project or plan is not implementing all of the water demand management measures described in Section 10631.

(c) In establishing guidelines pursuant to the specific funding authorization for any water management grant or loan program subject to this section, the agency administering the grant or loan program shall include in the guidelines the eligibility requirements developed by the department pursuant to subdivision (b).

(d) Upon receipt of a water management grant or loan application by an agency administering a grant and loan program subject to this section, the agency shall request an eligibility determination from the department with respect to the requirements of this section. The department shall respond to the request within 60 days of the request.

(e) The urban water supplier may submit to the department copies of its annual reports and other relevant documents to assist the department in determining whether the urban water supplier is implementing or scheduling the implementation of water demand management activities. In addition, for urban water suppliers that are signatories to the Memorandum of Understanding Regarding Urban Water Conservation in California and submit biennial reports to the California Urban Water Conservation Council in accordance with the memorandum, the department may use these reports to assist in tracking the implementation of water demand management measures.

(f) This section shall remain in effect only until July 1, 2016, and as of that date is repealed, unless a later enacted statute, that is enacted before July 1, 2016, deletes or extends that date.

**10631.7.** The department, in consultation with the California Urban Water Conservation Council, shall convene an independent technical panel to provide information and recommendations to the department and the Legislature on new demand management measures, technologies, and approaches. The panel shall consist of no more than seven members, who shall be selected by the department to reflect a balanced representation of experts. The panel shall have at least one, but no more than two, representatives from each of the following: retail water suppliers, environmental organizations, the business community, wholesale water suppliers, and academia. The panel shall be convened by January 1, 2009, and shall report to the Legislature no later than January 1, 2010, and every five years thereafter. The department shall review the panel report and include in the final report to the Legislature the department's recommendations and comments regarding the panel process and the panel's recommendations.

**10632.** (a) The plan shall provide an urban water shortage contingency analysis that includes each of the following elements that are within the authority of the urban water supplier:

(1) Stages of action to be undertaken by the urban water supplier in response to water supply shortages, including up to a 50 percent reduction in water supply, and an outline of specific water supply conditions that are applicable to each stage.

(2) An estimate of the minimum water supply available during each of the next three water years based on the driest three-year historic

sequence for the agency's water supply.

(3) Actions to be undertaken by the urban water supplier to prepare for, and implement during, a catastrophic interruption of water supplies including, but not limited to, a regional power outage, an earthquake, or other disaster.

(4) Additional, mandatory prohibitions against specific water use practices during water shortages, including, but not limited to, prohibiting the use of potable water for street cleaning.

(5) Consumption reduction methods in the most restrictive stages. Each urban water supplier may use any type of consumption reduction methods in its water shortage contingency analysis that would reduce water use, are appropriate for its area, and have the ability to achieve a water use reduction consistent with up to a 50 percent reduction in water supply.

(6) Penalties or charges for excessive use, where applicable.

(7) An analysis of the impacts of each of the actions and conditions described in paragraphs (1) to (6), inclusive, on the revenues and expenditures of the urban water supplier, and proposed measures to overcome those impacts, such as the development of reserves and rate adjustments.

(8) A draft water shortage contingency resolution or ordinance.

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

(b) Commencing with the urban water management plan update due December 31, 2015, for purposes of developing the water shortage contingency analysis pursuant to subdivision (a), the urban water supplier shall analyze and define water features that are artificially supplied with water, including ponds, lakes, waterfalls, and fountains, separately from swimming pools and spas, as defined in subdivision (a) of Section 115921 of the Health and Safety Code.

**10633.** The plan shall provide, to the extent available, information on recycled water and its potential for use as a water source in the service area of the urban water supplier. The preparation of the plan shall be coordinated with local water, wastewater, groundwater, and planning agencies that operate within the supplier's service area, and shall include all of the following:

(a) A description of the wastewater collection and treatment systems in the supplier's service area, including a quantification of the amount of wastewater collected and treated and the methods of wastewater disposal.

(b) A description of the quantity of treated wastewater that meets recycled water standards, is being discharged, and is otherwise available for use in a recycled water project.

(c) A description of the recycled water currently being used in the supplier's service area, including, but not limited to, the type, place, and quantity of use.

(d) A description and quantification of the potential uses of recycled water, including, but not limited to, agricultural irrigation, landscape irrigation, wildlife habitat enhancement, wetlands, industrial reuse, groundwater recharge, indirect potable reuse, and other appropriate uses, and a determination with regard to the technical and economic feasibility of serving those uses.

(e) The projected use of recycled water within the supplier's

service area at the end of 5, 10, 15, and 20 years, and a description of the actual use of recycled water in comparison to uses previously projected pursuant to this subdivision.

(f) A description of actions, including financial incentives, which may be taken to encourage the use of recycled water, and the projected results of these actions in terms of acre-feet of recycled water used per year.

(g) A plan for optimizing the use of recycled water in the supplier's service area, including actions to facilitate the installation of dual distribution systems, to promote recirculating uses, to facilitate the increased use of treated wastewater that meets recycled water standards, and to overcome any obstacles to achieving that increased use.

**10634.** The plan shall include information, to the extent practicable, relating to the quality of existing sources of water available to the supplier over the same five-year increments as described in subdivision (a) of Section 10631, and the manner in which water quality affects water management strategies and supply reliability.

## **WATER CODE**

### **SECTION 10635**

**10635.** (a) Every urban water supplier shall include, as part of its urban water management plan, an assessment of the reliability of its water service to its customers during normal, dry, and multiple dry water years. This water supply and demand assessment shall compare the total water supply sources available to the water supplier with the total projected water use over the next 20 years, in five-year increments, for a normal water year, a single dry water year, and multiple dry water years. The water service reliability assessment shall be based upon the information compiled pursuant to Section 10631, including available data from state, regional, or local agency population projections within the service area of the urban water supplier.

(b) The urban water supplier shall provide that portion of its urban water management plan prepared pursuant to this article to any city or county within which it provides water supplies no later than 60 days after the submission of its urban water management plan.

(c) Nothing in this article is intended to create a right or entitlement to water service or any specific level of water service.

(d) Nothing in this article is intended to change existing law concerning an urban water supplier's obligation to provide water service to its existing customers or to any potential future customers.

## **WATER CODE**

### **SECTION 10640-10645**

**10640.** Every urban water supplier required to prepare a plan pursuant to this part shall prepare its plan pursuant to Article 2 (commencing with Section 10630).

The supplier shall likewise periodically review the plan as required by Section 10621, and any amendments or changes required as a result of that review shall be adopted pursuant to this article.

**10641.** An urban water supplier required to prepare a plan may consult with, and obtain comments from, any public agency or state agency or any person who has special expertise with respect to water demand management methods and techniques.

**10642.** Each urban water supplier shall encourage the active involvement of diverse social, cultural, and economic elements of the population within the service area prior to and during the preparation of the plan. Prior to adopting a plan, the urban water supplier shall make the plan available for public inspection and shall hold a public hearing thereon. Prior to the hearing, notice of the time and place of hearing shall be published within the jurisdiction of the publicly owned water supplier pursuant to Section 6066 of the Government Code. The urban water supplier shall provide notice of the time and place of hearing to any city or county within which the supplier provides water supplies. A privately owned water supplier shall provide an equivalent notice within its service area. After the hearing, the plan shall be adopted as prepared or as modified after the hearing.

**10643.** An urban water supplier shall implement its plan adopted pursuant to this chapter in accordance with the schedule set forth in its plan.

**10644.** (a) An urban water supplier shall submit to the department, the California State Library, and any city or county within which the supplier provides water supplies a copy of its plan no later than 30 days after adoption. Copies of amendments or changes to the plans shall be submitted to the department, the California State Library, and any city or county within which the supplier provides water supplies within 30 days after adoption.

(b) The department shall prepare and submit to the Legislature, on or before December 31, in the years ending in six and one, a report summarizing the status of the plans adopted pursuant to this part. The report prepared by the department shall identify the exemplary elements of the individual plans. The department shall provide a copy of the report to each urban water supplier that has submitted its plan to the department. The department shall also prepare reports and provide data for any legislative hearings designed to consider the effectiveness of plans submitted pursuant to this part.

(c) (1) For the purpose of identifying the exemplary elements of the individual plans, the department shall identify in the report those water demand management measures adopted and implemented by specific urban water suppliers, and identified pursuant to Section

10631, that achieve water savings significantly above the levels established by the department to meet the requirements of Section 10631.5.

(2) The department shall distribute to the panel convened pursuant to Section 10631.7 the results achieved by the implementation of those water demand management measures described in paragraph (1).

(3) The department shall make available to the public the standard the department will use to identify exemplary water demand management measures.

**10645.** Not later than 30 days after filing a copy of its plan with the department, the urban water supplier and the department shall make the plan available for public review during normal business hours.

## **WATER CODE**

### **SECTION 10650-10656**

**10650.** Any actions or proceedings to attack, review, set aside, void, or annul the acts or decisions of an urban water supplier on the grounds of noncompliance with this part shall be commenced as follows:

(a) An action or proceeding alleging failure to adopt a plan shall be commenced within 18 months after that adoption is required by this part.

(b) Any action or proceeding alleging that a plan, or action taken pursuant to the plan, does not comply with this part shall be commenced within 90 days after filing of the plan or amendment thereto pursuant to Section 10644 or the taking of that action.

**10651.** In any action or proceeding to attack, review, set aside, void, or annul a plan, or an action taken pursuant to the plan by an urban water supplier on the grounds of noncompliance with this part, the inquiry shall extend only to whether there was a prejudicial abuse of discretion. Abuse of discretion is established if the supplier has not proceeded in a manner required by law or if the action by the water supplier is not supported by substantial evidence.

**10652.** The California Environmental Quality Act (Division 13 (commencing with Section 21000) of the Public Resources Code) does not apply to the preparation and adoption of plans pursuant to this part or to the implementation of actions taken pursuant to Section 10632. Nothing in this part shall be interpreted as exempting from the California Environmental Quality Act any project that would significantly affect water supplies for fish and wildlife, or any project for implementation of the plan, other than projects implementing Section 10632, or any project for expanded or additional water supplies.

**10653.** The adoption of a plan shall satisfy any requirements of state law, regulation, or order, including those of the State Water Resources Control Board and the Public Utilities Commission, for the preparation of water management plans or conservation plans; provided, that if the State Water Resources Control Board or the Public Utilities Commission requires additional information concerning water conservation to implement its existing authority, nothing in this part shall be deemed to limit the board or the commission in obtaining that information. The requirements of this part shall be satisfied by any urban water demand management plan prepared to meet federal laws or regulations after the effective date of this part, and which substantially meets the requirements of this part, or by any existing urban water management plan which includes the contents of a plan required under this part.

**10654.** An urban water supplier may recover in its rates the costs incurred in preparing its plan and implementing the reasonable water conservation measures included in the plan. Any best water management practice that is included in the plan that is identified in the

"Memorandum of Understanding Regarding Urban Water Conservation in California" is deemed to be reasonable for the purposes of this section.

**10655.** If any provision of this part or the application thereof to any person or circumstances is held invalid, that invalidity shall not affect other provisions or applications of this part which can be given effect without the invalid provision or application thereof, and to this end the provisions of this part are severable.

**10656.** An urban water supplier that does not prepare, adopt, and submit its urban water management plan to the department in accordance with this part, is ineligible to receive funding pursuant to Division 24 (commencing with Section 78500) or Division 26 (commencing with Section 79000), or receive drought assistance from the state until the urban water management plan is submitted pursuant to this article.



## Appendix B

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Public Hearing Notices, Notifications, and Meeting Minutes





**Golden State  
Water Company**

A Subsidiary of American States Water Company

July 19, 2011

City of Arcadia  
Corkran W. Nicholson  
Planning Services Manager  
240 W. Huntington Drive  
Arcadia, CA 91006

Subject: **REVISED**-Notification of Public Hearing for the 2010 Urban Water Management Plan (UWMP) Golden State Water Company –Claremont, San Gabriel and South Arcadia Water Systems.

Dear Corkran:

Golden State Water Company (GSWC) is providing you this notice pursuant to Water Code, section 10621, subdivision (b) of the Act, which requires an urban water supplier to notify any city or county within which it provides water that it is reviewing its plan and considering changes to the plan for the following water systems:

Claremont, San Gabriel and South Arcadia

The UWMP's will be available for public review prior one week prior to the public hearing during normal business hours. Please call 1-800-999-4033 to make an appointment to view the plans at:

San Gabriel Customer Service Center  
110 East Live Oak  
Arcadia, CA 91006

Claremont Customer Service Center  
689 West Foothill Blvd., Suite D  
Claremont, CA 91711

A public hearing to solicit comments on the draft UWMP's will be held at 6:00 p.m., on *Thursday, August 18, 2011*, and take place at:

San Dimas/Senior Community Center  
201 E. Bonita Avenue  
San Dimas, CA 91773

If you have any questions please contact me at (916) 853-3612.

Very truly yours,  
GOLDEN STATE WATER COMPANY

A handwritten signature in black ink, appearing to read "Ernest A. Gisler". The signature is written in a cursive, somewhat stylized font.

Ernest A. Gisler  
Planning Manager



# Golden State Water Company

A Subsidiary of American States Water Company

July 19, 2011

City of Arcadia  
Philip A. Wray  
City Engineer  
240 W. Huntington Drive  
Arcadia, CA 91006

Subject: **REVISED**- Notification of Public Hearing for the 2010 Urban Water Management Plan (UWMP) Golden State Water Company –Claremont, San Gabriel and South Arcadia Water Systems.

Dear Phillip:

Golden State Water Company (GSWC) is providing you this notice pursuant to Water Code, section 10621, subdivision (b) of the Act, which requires an urban water supplier to notify any city or county within which it provides water that it is reviewing its plan and considering changes to the plan for the following water systems:

Claremont, San Gabriel and South Arcadia

The UWMP's will be available for public review one week prior to the public hearing during normal business hours. Please call 1-800-999-4033 to make an appointment to view the plans at the following locations:

San Gabriel Customer Service Center  
110 East Live Oak  
Arcadia, CA 91006

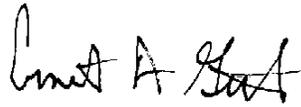
Claremont Customer Service Center  
689 West Foothill Blvd., Suite D  
Claremont, CA 91711

A public hearing to solicit comments on the draft UWMP's will be held at 6:00 p.m., on *Thursday, August 18, 2011* and take place at:

San Dimas/Senior Community Center  
201 E. Bonita Avenue  
San Dimas, CA 91773

If you have any questions please contact me at (916) 853-3612.

Very truly yours,  
GOLDEN STATE WATER COMPANY

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Ernest A. Gisler  
Planning Manager



**Golden State**  
**Water Company**

A Subsidiary of American States Water Company

July 19, 2011

City of Claremont  
Chris Veirs  
City Planner  
P.O. Box 880  
Claremont, CA 91711

Subject: **REVISED**-Notification of Public Hearing for the 2010 Urban Water Management Plan (UWMP) Golden State Water Company –Claremont, San Gabriel and South Arcadia Water Systems.

Dear Chris:

Golden State Water Company (GSWC) is providing you this notice pursuant to Water Code, section 10621, subdivision (b) of the Act, which requires an urban water supplier to notify any city or county within which it provides water that it is reviewing its plan and considering changes to the plan for the following water systems:

Claremont, San Gabriel and South Arcadia

The UWMP's will be available for public review one week prior to the public hearing during normal business hours. Please call 1-800-999-4033 to make an appointment to view the plans at the following locations:

San Gabriel Customer Service Center  
110 East Live Oak  
Arcadia, CA 91006

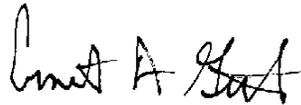
Claremont Customer Service Center  
689 West Foothill Blvd., Suite D  
Claremont, CA 91711

A public hearing to solicit comments on the draft UWMP's will be held at 6:00 p.m., on *Thursday, July 19, 2011* and take place at:

San Dimas/Senior Community Center  
201 E. Bonita Avenue  
San Dimas, CA 91773

If you have any questions please contact me at (916) 853-3612.

Very truly yours,  
GOLDEN STATE WATER COMPANY

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Ernest A. Gisler  
Planning Manager



# Golden State Water Company

A Subsidiary of American States Water Company

May 17, 2011

City of Covina  
Michael A. Marquez  
Community Development Director  
125 E. College Street  
Covina, CA 91723

**Subject:** Notification of Public Hearing for the 2010 Urban Water Management Plan (UWMP)  
Golden State Water Company – San Dimas, Claremont, San Gabriel and South  
Arcadia Water Systems.

Dear Michael:

Golden State Water Company (GSWC) is providing you this notice pursuant to Water Code, section 10621, subdivision (b) of the Act, which requires an urban water supplier to notify any city or county within which it provides water that it is reviewing its plan and considering changes to the plan for the following water systems:

San Dimas, Claremont, San Gabriel and South Arcadia

The UWMP's will be available for public review prior to the public hearing and can be reviewed during normal business hours. Please call 1-800-999-4033 to make an appointment to view the plan at:

San Dimas Customer Service Office  
121 Exchange Place  
San Dimas, CA 91773

San Gabriel Customer Service Center  
110 East Live Oak  
Arcadia, CA 91006

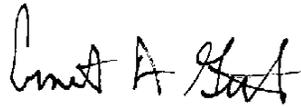
Claremont Customer Service Center  
689 West Foothill Blvd., Suite D  
Claremont, CA 91711

A public hearing to solicit comments on the draft UWMP will be held at 6:00 p.m., on Tuesday, July 19, 2011 and take place at:

San Dimas Community Center  
201 E. Bonita Avenue  
San Dimas, CA 91773

If you have any questions please contact me at (916) 853-3612.

Very truly yours,  
GOLDEN STATE WATER COMPANY

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Ernest A. Gisler  
Planning Manager



# Golden State Water Company

A Subsidiary of American States Water Company

July 19, 2011

City of El Monte  
James Troyer  
Planning Services Manager  
11333 Valley Blvd.  
El Monte, Ca 91732

Subject: **REVISED**-Notification of Public Hearing for the 2010 Urban Water Management Plan (UWMP) Golden State Water Company –Claremont, San Gabriel and South Arcadia Water Systems.

Dear James:

Golden State Water Company (GSWC) is providing you this notice pursuant to Water Code, section 10621, subdivision (b) of the Act, which requires an urban water supplier to notify any city or county within which it provides water that it is reviewing its plan and considering changes to the plan for the following water systems:

Claremont, San Gabriel and South Arcadia

The UWMP's will be available for public review one week prior to the public hearing during normal business hours. Please call 1-800-999-4033 to make an appointment to view the plans at the following locations:

San Gabriel Customer Service Center  
110 East Live Oak  
Arcadia, CA 91006

Claremont Customer Service Center  
689 West Foothill Blvd., Suite D  
Claremont, CA 91711

A public hearing to solicit comments on the draft UWMP's will be held at 6:00 p.m., on *Thursday, August 18, 2011* and take place at:

San Dimas Community/Senior Center  
201 E. Bonita Avenue  
San Dimas, CA 91773

If you have any questions please contact me at (916) 853-3612.

Very truly yours,  
GOLDEN STATE WATER COMPANY

A handwritten signature in black ink, appearing to read "Ernest A. Gisler". The signature is written in a cursive style with some stylized flourishes.

Ernest A. Gisler  
Planning Manager



# Golden State Water Company

A Subsidiary of American States Water Company

July 19, 2011

City of Irwindale  
Tonya Pace  
Director of Planning  
5050 North Irwindale Ave.  
Irwindale, CA 91706

Subject: **REVISED**- Notification of Public Hearing for the 2010 Urban Water Management Plan (UWMP)Golden State Water Company –Claremont, San Gabriel and South Arcadia Water Systems.

Dear Tonya:

Golden State Water Company (GSWC) is providing you this notice pursuant to Water Code, section 10621, subdivision (b) of the Act, which requires an urban water supplier to notify any city or county within which it provides water that it is reviewing its plan and considering changes to the plan for the following water systems:

Claremont, San Gabriel and South Arcadia

The UWMP's will be available for public review one week prior to the public hearing during normal business hours. Please call 1-800-999-4033 to make an appointment to view the plans at the following locations:

San Gabriel Customer Service Center  
110 East Live Oak  
Arcadia, CA 91006

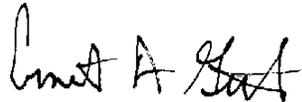
Claremont Customer Service Center  
689 West Foothill Blvd., Suite D  
Claremont, CA 91711

A public hearing to solicit comments on the draft UWMP's will be held at 6:00 p.m., on *Thursday, August 18, 2011* and take place at:

San Dimas Community/Senior Center  
201 E. Bonita Avenue  
San Dimas, CA 91773

If you have any questions please contact me at (916) 853-3612.

Very truly yours,  
GOLDEN STATE WATER COMPANY

A handwritten signature in black ink, appearing to read "Ernest A. Gisler". The signature is written in a cursive style with a large initial "E".

Ernest A. Gisler  
Planning Manager



# Golden State Water Company

A Subsidiary of American States Water Company

May 17, 2011

City of La Verne  
Hal Fredericksen  
Community Development Director  
3660 D Street  
La Verne, CA 91723

**Subject:** Notification of Public Hearing for the 2010 Urban Water Management Plan (UWMP)  
Golden State Water Company – San Dimas, Claremont, San Gabriel and South  
Arcadia Water Systems.

Dear Hal:

Golden State Water Company (GSWC) is providing you this notice pursuant to Water Code, section 10621, subdivision (b) of the Act, which requires an urban water supplier to notify any city or county within which it provides water that it is reviewing its plan and considering changes to the plan for the following water systems:

San Dimas, Claremont, San Gabriel and South Arcadia

The UWMP's will be available for public review prior to the public hearing and can be reviewed during normal business hours. Please call 1-800-999-4033 to make an appointment to view the plan at:

San Dimas Customer Service Office  
121 Exchange Place  
San Dimas, CA 91773

San Gabriel Customer Service Center  
110 East Live Oak  
Arcadia, CA 91006

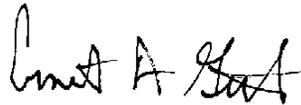
Claremont Customer Service Center  
689 West Foothill Blvd., Suite D  
Claremont, CA 91711

A public hearing to solicit comments on the draft UWMP will be held at 6:00 p.m., on Tuesday, July 19, 2011 and take place at:

San Dimas Community Center  
201 E. Bonita Avenue  
San Dimas, CA 91773

If you have any questions please contact me at (916) 853-3612.

Very truly yours,  
GOLDEN STATE WATER COMPANY

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Ernest A. Gisler  
Planning Manager



# Golden State Water Company

A Subsidiary of American States Water Company

July 19, 2011

City of Monrovia  
Alice Griselle  
Community Development Director  
415 South Ivy Avenue  
Monrovia, CA 91016

Subject: **REVISED**- Notification of Public Hearing for the 2010 Urban Water Management Plan (UWMP) Golden State Water Company –Claremont, San Gabriel and South Arcadia Water Systems.

Dear Alice:

Golden State Water Company (GSWC) is providing you this notice pursuant to Water Code, section 10621, subdivision (b) of the Act, which requires an urban water supplier to notify any city or county within which it provides water that it is reviewing its plan and considering changes to the plan for the following water systems:

Claremont, San Gabriel and South Arcadia

The UWMP's will be available for public review one week prior to the public hearing during normal business hours. Please call 1-800-999-4033 to make an appointment to view the plans at the following locations:

San Gabriel Customer Service Center  
110 East Live Oak  
Arcadia, CA 91006

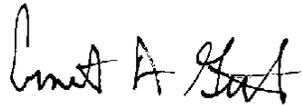
Claremont Customer Service Center  
689 West Foothill Blvd., Suite D  
Claremont, CA 91711

A public hearing to solicit comments on the draft UWMP's will be held at 6:00 p.m., on *Thursday, August 18, 2011* and take place at:

San Dimas Community/Senior Center  
201 E. Bonita Avenue  
San Dimas, CA 91773

If you have any questions please contact me at (916) 853-3612.

Very truly yours,  
GOLDEN STATE WATER COMPANY

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Ernest A. Gisler  
Planning Manager



# Golden State Water Company

A Subsidiary of American States Water Company

July 19, 2011

City of Montclair  
Steve Lustro  
Community Development Director  
5111 Bento Street  
Montclair, CA 91763

Subject: **REVISED-** Notification of Public Hearing for the 2010 Urban Water Management Plan (UWMP) Golden State Water Company –Claremont, San Gabriel and South Arcadia Water Systems.

Dear Steve:

Golden State Water Company (GSWC) is providing you this notice pursuant to Water Code, section 10621, subdivision (b) of the Act, which requires an urban water supplier to notify any city or county within which it provides water that it is reviewing its plan and considering changes to the plan for the following water systems:

Claremont, San Gabriel and South Arcadia

The UWMP's will be available for public review one week prior to the public hearing during normal business hours. Please call 1-800-999-4033 to make an appointment to view the plans at the following locations:

San Gabriel Customer Service Center  
110 East Live Oak  
Arcadia, CA 91006

Claremont Customer Service Center  
689 West Foothill Blvd., Suite D  
Claremont, CA 91711

A public hearing to solicit comments on the draft UWMP's will be held at 6:00 p.m., on *Thursday, August 18, 2011* and take place at:

San Dimas Community/Senior Center  
201 E. Bonita Avenue  
San Dimas, CA 91773

If you have any questions please contact me at (916) 853-3612.

Very truly yours,  
GOLDEN STATE WATER COMPANY

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Ernest A. Gisler  
Planning Manager



# Golden State Water Company

A Subsidiary of American States Water Company

July 19, 2011

City of Monterey Park  
Ray Hamada  
Planning Manager  
320 West Newmark Avenue  
Monterey Park, CA 91754

Subject: **REVISED**- Notification of Public Hearing for the 2010 Urban Water Management Plan (UWMP) Golden State Water Company – Claremont, San Gabriel and South Arcadia Water Systems.

Dear Ray:

Golden State Water Company (GSWC) is providing you this notice pursuant to Water Code, section 10621, subdivision (b) of the Act, which requires an urban water supplier to notify any city or county within which it provides water that it is reviewing its plan and considering changes to the plan for the following water systems:

Claremont, San Gabriel and South Arcadia

The UWMP's will be available for public review one week prior to the public hearing during normal business hours. Please call 1-800-999-4033 to make an appointment to view the plans at the following locations:

San Gabriel Customer Service Center  
110 East Live Oak  
Arcadia, CA 91006

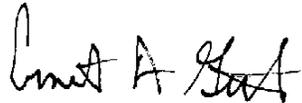
Claremont Customer Service Center  
689 West Foothill Blvd., Suite D  
Claremont, CA 91711

A public hearing to solicit comments on the draft UWMP's will be held at 6:00 p.m., on *Thursday, August 18, 2011* and take place at:

San Dimas Community/Senior Center  
201 E. Bonita Avenue  
San Dimas, CA 91773

If you have any questions please contact me at (916) 853-3612.

Very truly yours,  
GOLDEN STATE WATER COMPANY

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Ernest A. Gisler  
Planning Manager



# Golden State Water Company

A Subsidiary of American States Water Company

July 19, 2011

City of Pomona  
Mark Laccaretto  
Planning Division  
505 South Garey Avenue  
Pomona, CA 91766

Subject: **REVISED**- Notification of Public Hearing for the 2010 Urban Water Management Plan (UWMP) Golden State Water Company – Claremont, San Gabriel and South Arcadia Water Systems.

Dear Mark:

Golden State Water Company (GSWC) is providing you this notice pursuant to Water Code, section 10621, subdivision (b) of the Act, which requires an urban water supplier to notify any city or county within which it provides water that it is reviewing its plan and considering changes to the plan for the following water systems:

Claremont, San Gabriel and South Arcadia

The UWMP's will be available for public review one week prior to the public hearing during normal business hours. Please call 1-800-999-4033 to make an appointment to view the plans at the following locations:

San Gabriel Customer Service Center  
110 East Live Oak  
Arcadia, CA 91006

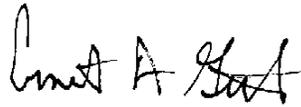
Claremont Customer Service Center  
689 West Foothill Blvd., Suite D  
Claremont, CA 91711

A public hearing to solicit comments on the draft UWMP's will be held at 6:00 p.m., on *Thursday, August 18, 2011* and take place at:

San Dimas Community/Senior Center  
201 E. Bonita Avenue  
San Dimas, CA 91773

If you have any questions please contact me at (916) 853-3612.

Very truly yours,  
GOLDEN STATE WATER COMPANY

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Ernest A. Gisler  
Planning Manager



# Golden State Water Company

A Subsidiary of American States Water Company

July 19, 2011

City of Rosemead  
Bradford Johnson  
Planning Director  
8838 Valley Blvd.  
Rosemead, CA 91770

Subject: **REVISED**- Notification of Public Hearing for the 2010 Urban Water Management Plan (UWMP) Golden State Water Company – Claremont, San Gabriel and South Arcadia Water Systems.

Dear Bradford:

Golden State Water Company (GSWC) is providing you this notice pursuant to Water Code, section 10621, subdivision (b) of the Act, which requires an urban water supplier to notify any city or county within which it provides water that it is reviewing its plan and considering changes to the plan for the following water systems:

Claremont, San Gabriel and South Arcadia

The UWMP's will be available for public review one week prior to the public hearing during normal business hours. Please call 1-800-999-4033 to make an appointment to view the plans at the following locations:

San Gabriel Customer Service Center  
110 East Live Oak  
Arcadia, CA 91006

Claremont Customer Service Center  
689 West Foothill Blvd., Suite D  
Claremont, CA 91711

A public hearing to solicit comments on the draft UWMP's will be held at 6:00 p.m., on *Thursday, August 18, 2011* and take place at:

San Dimas Community/Senior Center  
201 E. Bonita Avenue  
San Dimas, CA 91773

If you have any questions please contact me at (916) 853-3612.

Very truly yours,  
GOLDEN STATE WATER COMPANY

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Ernest A. Gisler  
Planning Manager



# Golden State Water Company

A Subsidiary of American States Water Company

May 17, 2011

City of San Dimas  
Dan Coleman  
Planning Manager  
245 East Bonita Avenue  
San Dimas, CA 91773

**Subject:** Notification of Public Hearing for the 2010 Urban Water Management Plan (UWMP)  
Golden State Water Company – San Dimas, Claremont, San Gabriel and South  
Arcadia Water Systems.

Dear Dan:

Golden State Water Company (GSWC) is providing you this notice pursuant to Water Code, section 10621, subdivision (b) of the Act, which requires an urban water supplier to notify any city or county within which it provides water that it is reviewing its plan and considering changes to the plan for the following water systems:

San Dimas, Claremont, San Gabriel and South Arcadia

The UWMP's will be available for public review prior to the public hearing and can be reviewed during normal business hours. Please call 1-800-999-4033 to make an appointment to view the plan at:

San Dimas Customer Service Office  
121 Exchange Place  
San Dimas, CA 91773

San Gabriel Customer Service Center  
110 East Live Oak  
Arcadia, CA 91006

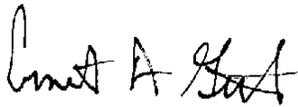
Claremont Customer Service Center  
689 West Foothill Blvd., Suite D  
Claremont, CA 91711

A public hearing to solicit comments on the draft UWMP will be held at 6:00 p.m., on Tuesday, July 19, 2011 and take place at:

San Dimas Community Center  
201 E. Bonita Avenue  
San Dimas, CA 91773

If you have any questions please contact me at (916) 853-3612.

Very truly yours,  
GOLDEN STATE WATER COMPANY

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Ernest A. Gisler  
Planning Manager



# Golden State Water Company

A Subsidiary of American States Water Company

July 19, 2011

City of San Gabriel  
Carol Banet  
Planning Manager  
425 South Mission Drive  
San Gabriel, CA 91776

Subject: **REVISED**- Notification of Public Hearing for the 2010 Urban Water Management Plan (UWMP) Golden State Water Company –Claremont, San Gabriel and South Arcadia Water Systems.

Dear Carol:

Golden State Water Company (GSWC) is providing you this notice pursuant to Water Code, section 10621, subdivision (b) of the Act, which requires an urban water supplier to notify any city or county within which it provides water that it is reviewing its plan and considering changes to the plan for the following water systems:

Claremont, San Gabriel and South Arcadia

The UWMP's will be available for public review one week prior to the public hearing during normal business hours. Please call 1-800-999-4033 to make an appointment to view the plans at the following locations:

San Gabriel Customer Service Center  
110 East Live Oak  
Arcadia, CA 91006

Claremont Customer Service Center  
689 West Foothill Blvd., Suite D  
Claremont, CA 91711

A public hearing to solicit comments on the draft UWMP's will be held at 6:00 p.m., on *Thursday, August 18, 2011* and take place at:

San Dimas Community/Senior Center  
201 E. Bonita Avenue  
San Dimas, CA 91773

If you have any questions please contact me at (916) 853-3612.

Very truly yours,  
GOLDEN STATE WATER COMPANY

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Ernest A. Gisler  
Planning Manager



# Golden State Water Company

A Subsidiary of American States Water Company

July 19, 2011

City of Temple City  
Joseph Lambert  
Community Development Director  
9701 Las Tunas Drive  
Temple City, CA 91780

Subject: **REVISED**- Notification of Public Hearing for the 2010 Urban Water Management Plan (UWMP) Golden State Water Company –Claremont, San Gabriel and South Arcadia Water Systems.

Dear Joseph:

Golden State Water Company (GSWC) is providing you this notice pursuant to Water Code, section 10621, subdivision (b) of the Act, which requires an urban water supplier to notify any city or county within which it provides water that it is reviewing its plan and considering changes to the plan for the following water systems:

Claremont, San Gabriel and South Arcadia

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110 East Live Oak  
Arcadia, CA 91006

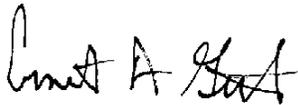
Claremont Customer Service Center  
689 West Foothill Blvd., Suite D  
Claremont, CA 91711

A public hearing to solicit comments on the draft UWMP's will be held at 6:00 p.m., on *Thursday, August 18, 2011* and take place at:

San Dimas Community/Senior Center  
201 E. Bonita Avenue  
San Dimas, CA 91773

If you have any questions please contact me at (916) 853-3612.

Very truly yours,  
GOLDEN STATE WATER COMPANY

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Ernest A. Gisler  
Planning Manager



# Golden State Water Company

A Subsidiary of American States Water Company

July 19, 2011

City of Upland  
Jeffrey Bloom  
Planning Director  
460 North Euclid Avenue  
Upland, CA 91786

Subject: **REVISED**-Notification of Public Hearing for the 2010 Urban Water Management Plan (UWMP) Golden State Water Company –Claremont, San Gabriel and South Arcadia Water Systems.

Dear Jeffrey:

Golden State Water Company (GSWC) is providing you this notice pursuant to Water Code, section 10621, subdivision (b) of the Act, which requires an urban water supplier to notify any city or county within which it provides water that it is reviewing its plan and considering changes to the plan for the following water systems:

Claremont, San Gabriel and South Arcadia

The UWMP's will be available for public review one week prior to the public hearing during normal business hours. Please call 1-800-999-4033 to make an appointment to view the plans at the following locations:

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110 East Live Oak  
Arcadia, CA 91006

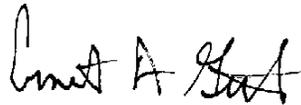
Claremont Customer Service Center  
689 West Foothill Blvd., Suite D  
Claremont, CA 91711

A public hearing to solicit comments on the draft UWMP's will be held at 6:00 p.m., on *Thursday, August 18, 2011* and take place at:

San Dimas Community/Senior Center  
201 E. Bonita Avenue  
San Dimas, CA 91773

If you have any questions please contact me at (916) 853-3612.

Very truly yours,  
GOLDEN STATE WATER COMPANY

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Ernest A. Gisler  
Planning Manager



# Golden State Water Company

A Subsidiary of American States Water Company

May 17, 2011

City of Walnut  
Tom Wiener  
Director of Community Development  
21201 La Puente Road  
Walnut, CA 91789

**Subject:** Notification of Public Hearing for the 2010 Urban Water Management Plan (UWMP)  
Golden State Water Company – San Dimas, Claremont, San Gabriel and South  
Arcadia Water Systems.

Dear Tom:

Golden State Water Company (GSWC) is providing you this notice pursuant to Water Code, section 10621, subdivision (b) of the Act, which requires an urban water supplier to notify any city or county within which it provides water that it is reviewing its plan and considering changes to the plan for the following water systems:

San Dimas, Claremont, San Gabriel and South Arcadia

The UWMP's will be available for public review prior to the public hearing and can be reviewed during normal business hours. Please call 1-800-999-4033 to make an appointment to view the plan at:

San Dimas Customer Service Office  
121 Exchange Place  
San Dimas, CA 91773

San Gabriel Customer Service Center  
110 East Live Oak  
Arcadia, CA 91006

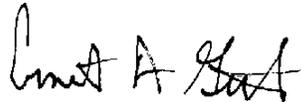
Claremont Customer Service Center  
689 West Foothill Blvd., Suite D  
Claremont, CA 91711

A public hearing to solicit comments on the draft UWMP will be held at 6:00 p.m., on Tuesday, July 19, 2011 and take place at:

San Dimas Community Center  
201 E. Bonita Avenue  
San Dimas, CA 91773

If you have any questions please contact me at (916) 853-3612.

Very truly yours,  
GOLDEN STATE WATER COMPANY

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Ernest A. Gisler  
Planning Manager



# Golden State Water Company

A Subsidiary of American States Water Company

May 17, 2011

Country of Los Angeles  
Richard Brudckner  
Director Department of Regional Planning  
320 West Temple Street  
Los Angeles, CA 90012

Subject: Notification of Public Hearing for the 2010 Urban Water Management Plan (UWMP)  
Golden State Water Company – San Dimas, Claremont, San Gabriel and South  
Arcadia Water Systems.

Dear Richard:

Golden State Water Company (GSWC) is providing you this notice pursuant to Water Code, section 10621, subdivision (b) of the Act, which requires an urban water supplier to notify any city or county within which it provides water that it is reviewing its plan and considering changes to the plan for the following water systems:

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The UWMP's will be available for public review prior to the public hearing and can be reviewed during normal business hours. Please call 1-800-999-4033 to make an appointment to view the plan at:

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121 Exchange Place  
San Dimas, CA 91773

San Gabriel Customer Service Center  
110 East Live Oak  
Arcadia, CA 91006

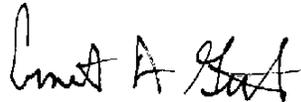
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689 West Foothill Blvd., Suite D  
Claremont, CA 91711

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San Dimas Community Center  
201 E. Bonita Avenue  
San Dimas, CA 91773

If you have any questions please contact me at (916) 853-3612.

Very truly yours,  
GOLDEN STATE WATER COMPANY

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Ernest A. Gisler  
Planning Manager



# Golden State Water Company

A Subsidiary of American States Water Company

July 19, 2011

Country of Los Angeles  
Richard Brudckner  
Director Department of Regional Planning  
320 West Temple Street  
Los Angeles, CA 90012

Subject: **REVISED** Notification of Public Hearing for the 2010 Urban Water Management Plan (UWMP) Golden State Water Company –Claremont, San Gabriel and South Arcadia Water Systems.

Dear Richard:

Golden State Water Company (GSWC) is providing you this notice pursuant to Water Code, section 10621, subdivision (b) of the Act, which requires an urban water supplier to notify any city or county within which it provides water that it is reviewing its plan and considering changes to the plan for the following water systems:

Claremont, San Gabriel and South Arcadia

The UWMP's will be available for public review one week prior to the public hearing during normal business hours. Please call 1-800-999-4033 to make an appointment to view the plans at the following locations:

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110 East Live Oak  
Arcadia, CA 91006

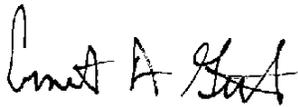
Claremont Customer Service Center  
689 West Foothill Blvd., Suite D  
Claremont, CA 91711

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201 E. Bonita Avenue  
San Dimas, CA 91773

If you have any questions please contact me at (916) 853-3612.

Very truly yours,  
GOLDEN STATE WATER COMPANY

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Ernest A. Gisler  
Planning Manager

(Space below for use of County Clerk only)

**SAN GABRIEL VALLEY TRIBUNE**

**Affiliated with  
SGV Newspaper Group  
1210 N. Azusa Canyon Road  
West Covina, CA 91790**

**PROOF OF PUBLICATION  
(2015.5 C.C.P.)**

**STATE OF CALIFORNIA**

**County of Los Angeles**

I am a citizen of the United States, and a resident of the county aforesaid; I am over the age of eighteen years, and not a party to or interested in the above-entitled matter. I am the principal clerk of the printer of **SAN GABRIEL VALLEY TRIBUNE**, a newspaper of general circulation which has been adjudicated as a newspaper of general circulation by the Superior Court of the County of Los Angeles, State of California, on the date of September 10, 1957, Case Number 684891. The notice, of which the annexed is a true printed copy, has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to wit:

6/15/11, 6/22/11

I declare under penalty of perjury that the foregoing is true and correct.

Executed at West Covina, LA Co. California  
This 22<sup>nd</sup> day of June, 2011



Signature

Proof of Publication of



**Golden State Water Company**  
A Subsidiary of American States Water Company

**Notice of Public Hearing**

In conformance with the California Urban Water Management Planning Act, Golden State Water Company (GSWC) is hosting a public hearing on July 19, from 6 p.m. to 7 p.m. at the San Dimas Community Center, 201 East Bonita Avenue, San Dimas, to solicit comments on the Urban Water Management Plans (UWMPs) for the company's San Dimas, Claremont, San Gabriel and South Arcadia water systems.

GSWC's San Dimas Water System serves customers in San Dimas and portions of Charter Oaks, Covina, Glendora, La Verne, and Walnut.

The company's Claremont Water System serves customers in Claremont and portions of Montclair, Pomona, and Upland.

GSWC's San Gabriel and South Arcadia Water Systems serve customers in portions of Arcadia, El Monte, Irwindale, Monrovia, Monterey Park, Rosemead, San Gabriel, and Temple City.

The UWMPs are available for public review one week prior to the public hearing during normal business hours. Please call 1-800-999-4033 to make an appointment to view the plans at the following locations:

San Dimas Customer Service Office  
121 Exchange Place  
San Dimas, CA 91773

San Gabriel Customer Service Office  
110 East Live Oak  
Arcadia, CA 91006

Claremont Customer Service Office  
689 West Foothill Blvd., Ste. D  
Claremont, CA 91711

For more information about Golden State Water Company, visit [www.gswater.com](http://www.gswater.com).

**Published: June 15, 22, 2011**  
**San Gabriel Valley Tribune Ad#42810**

12/22/5



2119207

**SAN GABRIEL VALLEY TRIBUNE**

affiliated with  
**SGV Newspaper Group**  
1210 N. Azusa Canyon Road  
West Covina, CA 91790

**PROOF OF PUBLICATION**  
(2015.5 C.C.P.)

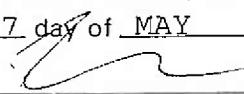
**STATE OF CALIFORNIA**  
**County of Los Angeles**

I am a citizen of the United States, and a resident of the county aforesaid; I am over the age of eighteen years, and not a party to or interested in the above-entitled matter. I am the principal clerk of the printer of SAN GABRIEL VALLEY TRIBUNE, a newspaper of general circulation which has been adjudicated as a newspaper of general circulation by the Superior Court of the County of Los Angeles, State of California, on the date of September 10, 1957, Case Number 684891. The notice, of which the annexed is a true printed copy, has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to wit:

5/17/11

I declare under penalty of perjury that the foregoing is true and correct.

Executed at West Covina, LA Co. California  
this 17 day of MAY, 20 11



signature

Proof of Publication of



**Golden State Water Company**  
A Subsidiary of American States Water Company

**Notice of Public Hearing**

In conformance with the California Urban Water Management Planning Act, Golden State Water Company (GSWC) is hosting a public hearing on July 19, from 6 p.m. to 7 p.m. at the San Dimas Community Center, 201 East Bonita Avenue, San Dimas, to solicit comments on the Urban Water Management Plans (UWMPs) for the company's San Dimas, Claremont, San Gabriel and South Arcadia water systems.

GSWC's San Dimas Water System serves customers in San Dimas and portions of Charter Oaks, Covina, Glendora, La Verne, and Walnut.

The company's Claremont Water System serves customers in Claremont and portions of Monclair, Pomona, and Upland.

GSWC's San Gabriel and South Arcadia Water Systems serve customers in portions of Arcadia, El Monte, Irwindale, Monrovia, Monterey Park, Rosemead, San Gabriel, and Temple City.

The UWMPs are available for public review one week prior to the public hearing during normal business hours. Please call 1-800-999-4033 to make an appointment to view the plans at the following locations:

San Dimas Customer Service Office  
121 Exchange Place  
San Dimas, CA 91773

San Gabriel Customer Service Office  
110 East Live Oak  
Arcadia, CA 91006

Claremont Customer Service Office  
689 West Foothill Blvd., Sta. D  
Claremont, CA 91711

For more information about Golden State Water Company visit [www.gswater.com](http://www.gswater.com).

CNS\*2102177  
Published: May 17, 2011  
San Gabriel Valley Tribune

Ad#201573





Search

About Golden State Water Company

Customer Service

Conservation Information & Rebates

Rates, Schedules & Tariffs

Water Quality

[Customer Service Home Page](#)

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[Payment Options](#)

[Understanding Your Bill](#)

[How to Read Your Meter](#)

[Definitions and Terminology](#)

[Frequently Asked Questions](#)

[New Customer Brochure](#)



[Find Local Office Information](#) » San Gabriel Valley

## San Gabriel Valley Customer Service Area

### Areas Served

This Customer Service Area serves approximately 12,200 customers in portions of Arcadia, El Monte, Irwindale, Monrovia, Monterey Park, Rosemead, San Gabriel, and Temple City

### Office Location

San Gabriel CSA  
110 East Live Oak  
Arcadia, CA 91006

24 hour Customer Service and Emergency  
800-999-4033 (24 hours, 7 days a week)  
877-933-9533 (TTY hearing impaired)  
Email: [customerservice@gswater.com](mailto:customerservice@gswater.com)

[Urban Water Management Plan](#)  
[Public Meeting Notice](#)

Golden State Water Company (GSWC) is in the process of updating its existing Urban Water Management Plan and is seeking public input. The plan is expected to be available for review one week prior to the meeting date.

See [public notice](#) for more information.

### Golden State Water Company (GSWC) Files a Cost of Capital Application

A Cost of Capital application was filed May 2, 2011 with the the California Public Utilities Commission (CPUC). The CPUC regulates GSWC to ensure adequate levels of service are provided at the lowest reasonable costs.

In this filing, GSWC is requesting for the CPUC to review and authorize an increase in the cost of capital reflected in rates for 2012, 2013, and 2014. A decision is expected in December 2011.

A copy of the application is [here](#).

### New Rates Established in San Gabriel Valley Customer Service Area for 2011 and 2012

The CPUC issued a final decision on the company's 2008 General Rate Case on Nov. 19, 2010. The decision established rates for GSWC to charge customers for 2010, 2011 and 2012 in its Region III, which includes the San Gabriel Valley Customer Service Area.

[Fact Sheet](#)

### RATES, SCHEDULES & TARIFFS

- [Residential Metered Service](#)
- [Non-Residential Metered Service](#)
- [Mandatory Conservation-Rationing \(Schedule 14.1\)](#)

[CLICK HERE](#) to view all our rates, tariffs and advice letters

### Third Tier Added to Tiered Rates for San Gabriel Valley Customer Service Area to Encourage Water Use Efficiency

GSWC residential customers in the utility's San Gabriel Valley Customer Service Area (CSA) had a third tier added to their tiered rates to promote water use efficiency.

The change, approved by the California Public Utilities Commission, began in December 2010. GSWC will not exceed CPUC authorized revenues as a result of tiered rates.

**WATER CONSERVATION TIPS**

Don't use the toilet as a wastebasket and save up to 200 gallons of water a month.

For 24-hour customer service or emergency please call

**1-800-999-4033**  
24 hours, 7 days a week  
**877-933-9533**  
TTY (hearing impaired)

Here's how tiered rates work. Customers get charged for each unit of water they use. A unit is equal to one hundred cubic feet of water, or Ccf (748 gallons). In the San Gabriel Valley CSA, residential customers will pay the lowest rate for each Ccf they use in tier one, up to 13 Ccf. For every unit of water used in tier two, which is 14-21 Ccf, customers will pay a 15 percent higher rate. In tier three, customers will pay an additional 15 percent for every unit of water from 22 Ccf and above.

The top of the first tier is based on the average winter month usage for the service area. The top of second tier is based on the midpoint between the annual average usage and the average summer month usage for the service area. The per unit price differential between each tier is approximately 15 percent, a sufficient amount to encourage water use efficiency.

For more information, see our Residential Metered Service tariff in the article above.

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#### LOW INCOME PROGRAM California Alternate Rates for Water (CARW)

Golden State Water Company offers a discount through the California Alternate Rates for Water (CARW) program to eligible customers. The amount of the discount is \$8 per month, which is equal to 15 percent of the average bill in your customer service area.

If you qualify for a rate discount on your electricity, you may be eligible for a discount on your water bill. Qualifications are based on the number of people living in your home and your total household income, including wages, government checks and benefits, and other financial support you and members of your family receive.

For further information, see the application below or contact our CARW hotline at (866) 360-CARW (2279).

-  [Application \(English\)](#)
-  [Application \(Spanish\)](#)

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#### Visit Golden State Water Company's Demonstration Garden



Golden State Water Company's demonstration garden which features over 25 different California-friendly plants, drought tolerant turf, and a water-wise smart irrigation system recently received the California Landscape Contractors Association (CLCA) state-wide trophy award for sustainability.

The CLCA trophy awards recognize companies, institutions, municipalities and residents for their interest in preserving and maintaining a beautiful California. The first of an inaugural award to be given by the CLCA, the award was designed to recognize those projects containing sustainable installation elements, including: water management, planting and plant selection, sustainable construction methods.

Since the completion of the project, Golden State Water Company has exceeded a 56-month return on investment goal of 40 percent water savings.

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#### Golden State Water Company's Water Shortage Plan for San Gabriel Valley Customers

Golden State Water Company (GSWC) developed a water shortage plan ([Schedule 14.1](#)) for its San Gabriel Customer Service Area that asks customers to voluntarily reduce their usage based on historical averages. Read additional plan details [here](#). Each water allocation is based on the customer's average historical usage in 2004, 2005, and 2006, minus 10 percent.

Additionally, water use restrictions are now in place. GSWC may issue fines to customers who are involved in water wasting activities such as using water in any manner that results in run-off in gutters, waterways, patios, driveways or streets. Repeated violations could lead to the installation of flow restrictors at the customer's cost and suspension of service. See [list of restrictions](#).

Should a mandatory allocation stage be implemented, exception forms will be available for customers to request an allocation adjustment. For example, if a household added several people since 2006, or if customers require additional water for medical needs, they may be eligible for a higher water budget. Water conservation practices and devices may be evaluated as part of the exception evaluation process. Since the targeted reductions in the current stage for San Gabriel customers are voluntary, allocation forms will not be processed at this time.

For more information, see our list of [frequently asked questions](#) about the water shortage plan, or call 1-800-999-4033.

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#### Golden State has Invested More Than \$19.7 Million in the San Gabriel Customer Service Area Since 2000

Golden State is continually improving its water infrastructure to ensure its supply, distribution, and storage systems are adequate. From 2000 to 2009, Golden State spent

more than \$19.7 million on improvements in the San Gabriel Customer Service Area, which includes portions of Arcadia, El Monte, Irwindale, Monrovia, Monterey Park, Rosemead, San Gabriel, and Temple City.

"To make high quality water readily available to all of our customers, we must continually invest in our water facilities, installing new infrastructure," said GSWC's Foothill District Manager Benjamin Lewis.

Golden State Water Company is regulated by the California Public Utilities Commission, which established a [Water Action Plan](#). One of the objectives of the plan is to promote water infrastructure investment. Nationally, leaking pipes lose an estimated seven billion gallons of clean drinking water a day, according to the American Society of Civil Engineers.

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#### WATER CONSERVATION REBATE PROGRAMS

Golden State Water Company partners with other agencies to offer various rebate programs as an incentive for customers to purchase water-efficient products. Here are some programs created for San Gabriel Valley Customer Service Area customers. Funding is limited.

##### High-Efficiency Clothes Washer (HECW) Rebates

For single-family homes call 1-888-376-3314 or visit [www.socalwatersmart.com](http://www.socalwatersmart.com). Up to \$85 rebate for those who qualify.

##### High-Efficiency Toilet (HET) Rebates

Up to \$125 for qualifying customers. Click [here](#) for application or call 1-800-999-4033.

##### Rotating Nozzles and Pressure Regulating Sprinkler Heads

Single-family homes, call 888-376-3314 or visit [www.socalwatersmart.com](http://www.socalwatersmart.com). Up to \$4 per set rebate for those who qualify.

##### Weather-based Irrigation Controller (SmarTimer)

Single-family homes and multi-family buildings up to four units, call 888-376-3314 or visit [www.socalwatersmart.com](http://www.socalwatersmart.com). Up to \$25 rebate per station for those who qualify.

SmarTimer rebates for multi-family buildings with more than four units are currently no longer available due to overwhelming public response.

To learn more about any of our current rebate programs, please call customer service at 800-999-4033.

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#### WATER QUALITY ANNUAL REPORT

-  [South Arcadia](#)
-  [South San Gabriel](#)



AUGUST 18, 2011

2010 UWMP PUBLIC MEETING MINUTES FOR CLAREMONT,  
SOUTH ARCADIA & SOUTH SAN GABRIEL

---

GSUC ATTENDEES: ADRIAN COMBES, BEN LEWIS, TOM TRAFFAS,  
DIANE PINNICK

MEETING CALLED TO ORDER 6:02pm

SEE COMMENT CARDS FOR ALL QUESTIONS AND COMMENTS

MEETING ADJOURNED 7:06pm



Comment Card  
Claremont, South Arcadia, South San Gabriel  
UWMP Public Hearing

Aug. 18, 2011

Name Richard Haskell  
Service Address 421 Baughman Avenue  
City Claremont  
Question regarding future use of reclaimed water?

Does GSW have a vision for the use of reclaimed water in the Claremont community? How can GSW collaborate with Three Valleys, LACSD, & the City to provide reclaimed water for landscape irrigation? The section on reclaimed water is very disappointing.



Comment Card  
Claremont, South Arcadia, South San Gabriel  
UWMP Public Hearing  
Aug. 18, 2011

Name Marilee Scaff

Service Address 640 Alben Rd

City Claremont

Question Read comments

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Response 2010 Urban Water Management Plan for CLAREMONT  
Hearing at San Dimas Community Center, August 18, 2011

From: Marilee K. Scaff 640 Alden Road Apt 2, Claremont, Ca 91711  
COChair of the Water Task Force of League of Women Voters of Claremont Area

Golden State Water Company and Kennedy/Jenks Consultants are to be commended for the 2011 Revision of their Urban Water Management Plan for Claremont. It is comprehensive and detailed, and outlines well the current situation of water supplies for Pomona Valley.

However, there are errors and omissions and important issues not addressed which if corrected might make the Plan even more useful, and improve its function as a guide for future operations. I would like to call attention to the following:

1. Page vii. First, may I point out that advance notices of this public hearing are quite inadequate for inviting comment from citizens of Claremont. A notice in a newspaper in Covina is completely inaccessible to the reading public of Claremont; *Inland Valley Daily Bulletin* published in Pomona and *Claremont Courier* are the papers people in Pomona Valley read. Also you should remember that a great many of your clientele --several thousand college students, plus all residents of retirement communities, all persons living in multi-family housing and renters in single family homes never see their water bills, as they pay for water through their rents. Yet all of them should be concerned about their water supply.

2. Chapter 2. Demographics relies entirely on year 2000 population figures and uses these for projections. By the time the period covered by the report comes to an end, your figures will be 20 years out of date, and hence inadequate for planning.

**One thing is sure: The next 20 years will not be like the last 20. Global warming, population increase, diminishing water availability from Sierra snow pack, changes in State Water Plan—all these and more will need to be taken into account.**

As the 2010 Census figures are already available, a really useful plan must take the extra time and effort to put those into its calculations.

3. Claremont's population, furthermore, is quite unusual for a town of its size, and depending on SCAG's population projections do not fit this population. As a small town with eight colleges enrolling something like 14,000 students a majority of whom live in Residence Halls, plus four retirement communities with another 1,500 members, nearly half of the total population does not fit the expected pattern of household and employment projections adopted from 2008 RTP data. So your methodology for 2.3. section is inappropriate and will not give you reliable data.

This same problem infects your population projection of 39,015 by the year 2015 (Table 2.2). Claremont is essentially "built out"; there is almost no open space for normal community growth. Surely there must be other communities which do not fit this paradigm of never-ending growth. It certainly will affect planning and water distribution. This same inaccuracy I note in all your longer-range water use projections. You would more reasonably revise these projections.

4. May I commend the core of this report: Chapter 3 on historical water use, the present efforts at conservation, and future targets for reduction in per capita use. Claremont's "Sustainable City" Plan is in full agreement with GSWC on this subject and we all applaud both the data and your efforts.

However, one does note the inconsistency of amounts of water used by the residents, (Table 3-3) with per capita daily use varying between 269 and 345 in the last 6 years. Therefore, I am astonished that in face of this, you can we even speak of a target reduction of 50% to 142 by the year 2020? Is that a reasonable?

5. Affordable Housing/ Disadvantages residents

Section 3-18 - Disadvantaged Community Water Projections implies that Claremont has no need of provision of affordable housing. This is not accurate. Claremont City lists at least the following:

Courier Village (City sponsored) is under construction on S. College for 45 seniors and 40 families (I'm less sure of the numbers)

Access Village (City sponsored) on N. Mountain for handicapped adults

Claremont Villa (City sponsored) on Indian Hill Blvd. for seniors, some affordable units.

Bonita Terrace for seniors

Claremont Village Green for seniors

Mountain Village for seniors

Emerson Village in Pomona, (to which Claremont refers seniors.)

Plus some Section 8 voucher-accepting commercial housing.

6. Ch 4.8 - 4.15 on Recycled water: thank you for the summary of the current situation about Recycled water. The Claremont College Consortium does expect to go ahead with recycling water for their own multiple-campus irrigation, which we hope will become a model for small scale recycling and that in the next 10 years there will be others.

7. One final addition: The State Water Plan calls for Southern California to seek to improve their reliance on local water supplies. What does GSWC plan about a possible **Water Emergency**, either because of a catastrophe on the delivery system of the State Water Project, or because of extended drought or damage to the Delta? The public should hear what kinds of thinking GSWC and MWD and TVMWD are doing in preparation for this really long-range possibility.

8. Finally, The League of Women Voters has a Water Task Force working for the last six years on water issues in the Claremont Area. This public-interest group has shared all our material with Golden State Water Company and all the other component users of water in Pomona Valley. Our aim has been to improve storm water spreading in Thompson Creek. We have a Feasibility Study, funded by Prop 84 bonds through the Los Angeles and San Gabriel Rivers and Mountains Conservancy which estimates that we could increase storm water spreading there by 30% to 150%. In addition the City of Claremont is willing to add this land to the Claremont Hills Wilderness Park, and manage it for the free usage by people from all over this region. Floyd Wicks as CEO of Golden State Water offered encouragement and support to this project. We urge Golden State Water Company to continue leadership in this project which would benefit the health and welfare of citizens all over this great Valley

how



Comment Card  
Claremont, South Arcadia, South San Gabriel  
UWMP Public Hearing  
Aug. 18, 2011

Name Freeman Allen

Service Address 394 Blanchell Dr,

City Claremont

Question Water

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## **Comments on the draft 2010 urban Water Management Plan - Claremont August 18, 2011**

The Urban Water Management Plan for Claremont contains a wealth of information, and is well written. The following comments address aspects that should be strengthened

### **1.1 Background**

**Solicitation of active participation of the population within the service area was minimal, and should be enhanced in the future.**

Page 1-6. According to the Urban Water Management Plan Act:

*Each urban water supplier shall encourage the active involvement of diverse social, cultural and economic elements of the population within the service area prior to and during the preparation of the Plan*

In fact:

- Notice of the Hearings on July 19 and August 18 were not published in Claremont. The population in this part of the service area was not encouraged to be involved.
- No notice of the Hearing was posted in the Claremont office of Golden States Water. Upon inquiry as to the time and location of the Hearing the customer representative referred to the GSW web site for the information. The Notice of public Hearing printed from the web site instructs the customer to “call 1-800-999-4033 to make an appointment to view the plan at the (Claremont office)”. At that number it was difficult to find anyone who knew of the Hearing. The information provided was to “contact the local office; no appointment is necessary”.
- At the local office, earlier today, the only information offered about the Plan was reference to the web site.

I attended the July 19 hearing and suggested that the August 18 Hearing be publicized in the local newspaper, the Claremont Courier, and that copies of the Plan be made easily accessible at locations such as the Claremont Public Library. That was not done.

Clearly involvement of the population in the service area has not been encouraged. This appears to be contrary to the intent of the Act, and an opportunity lost to involve the public in cooperative planning for the future of their water supply.

The relevant population should be involved and encouraged to participate. Golden States Water carries out a very active and well-publicized program encouraging water conservation. I suggest a similar active program be used to encourage involvement in water management planning.

If the Plan is to be relied on by the CPUC in regulatory decision-making accuracy and completeness will be important. The following comments relate to these features.

## **2.2 Demographics**

Affordable housing units are presently being constructed. This Plan says they “may be implemented”.

## **2.3 Population, Housing and Employment**

It was apparently not possible to use the latest census data. More accurate and up-to-date data should be used in regulatory decisions.

## **4.1. Water Sources**

The reference to the Covina Irrigation Company does not seem relevant.

### **Table 4.4.**

Pumping for 2006 and 2007 appears to exceed pumping rights. Are these figures correct?

## **4.8.3 Potential and Projected Use (of recycled water).**

Planning for a scalping plant at the Claremont Colleges is correctly stated to be in the preliminary stages. However, it now seems likely this plant will be constructed and in operation within a few years. If so, the recycled water used for irrigation will amount to about 5% of Claremont’s total usage and similarly reduce the need for more expensive imported water. This should be a consideration in CPUC regulatory decisions.

## **6.1.3 Water Supply**

PVPA also owns and operates the Thompson Creek Spreading Grounds. This source of water is much smaller than the San Antonio Spreading Grounds but it does provide water for the Six Basins Aquifer from the San Gabriel River watershed.

## **8.3 Catastrophic Supply Interruption Plan**

This section should specifically address the possibility of disruption of the State Water System for long periods of time. The Sacramento/San Joaquin river delta is notably vulnerable.

C. Freeman Allen, PhD

Professor Emeritus Chemistry, Pomona College

Co-Chair, Sustainable Claremont

Director for Sustainability, League of Women Voters of the Claremont Area





## Appendix C

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Council Annual Reports for Demand Management Measures





**CUWCC BMP RETAIL COVERAGE REPORT 2009-2010**  
**Foundation Best Management Practices for Urban Water Efficiency**

Agency: **Golden State Water Company** District Name: **San Gabriel Valley** CUWCC Unit #: **5045**  
 Retail  
 Primary Contact: **John Turner** Telephone: **(909) 394-3600 Ext** Email: **johnturner@gswater.com**

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

**GPCD in 2010 144**  
**GPCD Target for 2018 152**

Year	Report	Target	Highest Acceptable Bound	
	% Base	GPCD	% Base	GPCD
2010	96.4%	179	100%	185
2012	92.8%	172	96%	179
2014	89.2%	165	93%	172
2016	85.6%	159	89%	165
2018	82.0%	152	82%	152

Not on Track if 2010 GPCD is **greater** than target

GPCD in 2010: **144**  
 Highest Acceptable GPCD for: **185**

**On Track**





**CUWCC BMP RETAIL COVERAGE REPORT 2009-2010**  
**Foundation Best Management Practices for Urban Water Efficiency**

**BMP 1.2 Water Loss Control**

	2009
Complete a prescreening Audit	On Track if Yes
Metered Sales	6,081
Verifiable Other Uses	143
Total Supply (Metered Sales + System uses)/	6,511
Total Supply >0.89	0.96 <b>On Track</b>
If ratio is less than 0.9, complete a full scale Audit in 2009?	No
Verify Data with Records on File?	Yes <b>On Track</b>
Operate a system Leak Detection Program?	Yes <b>On Track</b>

	2010
Complete Standard Water Audit using AWWA Software?	Yes <b>On Track</b>
AWWA file provided to CUWCC?	Yes <b>On Track</b>
AWWA Water Audit Validity Score?	84
Completed Training in AWWA Audit Method?	Yes
Completed Training in Component Analysis Process?	No
Complete Component Analysis?	No
Repaired all leaks and breaks to the extent cost effective?	Yes <b>On Track</b>
Locate and repair unreported leaks to the extent cost effective.	Yes <b>On Track</b>
Maintain a record-keeping system for the repair of reported leaks, including time of report, leak location, type of leaking pipe segment or fitting, and leak running time from report to repair.	Yes
Provided 7 types of Water Loss Control Info	
Leaks Repaired	18
Value Assesment Losses	\$1,540.00
Miles Surveyed	38
Press Reduction	
Cost of Interventions	
Water Saved	41

On Track if Yes

On Track if =>.89, Not on Track if No

On Track if Yes

On Track if Yes

On Track if Yes

On Track if Yes, Not on Track if No

On Track if Yes, Not on Track if No

Info only until 2012

Info only until 2012

Info only until 2012

On Track if Yes, Not on Track if No

On Track if Yes, Not on Track if No

Info only until 2012

Info only until 2012

Leaks Repaired	Value Assesment Losses	Miles Surveyed	Press Reduction	Cost of Interventions	Water Saved
18	\$1,540.00	38			41



## CUWCC BMP RETAIL COVERAGE REPORT 2009-2010

### Foundation Best Management Practices for Urban Water Efficiency

#### 1.3 METERING WITH COMMODITY RATES FOR ALL NEW CONNECTIONS AND RETROFIT OF EXISTING CONNECTIONS

	2009	2010
Exemption or At least as Effective As accepted by CUWCC	0	0
Numbered Unmetered Accounts	On Track	On Track
Metered Accounts billed by volume of use	Yes	Yes
Number of CIU accounts with Mixed Use meters	120	120
Conducted a feasibility study to assess merits of a program to provide incentives to switch mixed-use accounts to dedicated landscape meters?	No	No
Feasibility Study provided to CUWCC?	No	No
Completed a written plan, policy or program to test, repair and replace meters	On Track until 2012	On Track until 2012
	On Track	On Track

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

On Track if no unmetered accounts

Volumetric billing required for all connections on same schedule as metering

Info only

Info only until 2012

On Track if Yes, Not on Track if No

On Track if Yes, Not on Track if No



# CUWCC BMP RETAIL COVERAGE REPORT 2009-2010

## Foundation Best Management Practices for Urban Water Efficiency

Agency: **Golden State Water Company** District Name: **San Gabriel Valley** CUWCC Unit #: **5045**  
 Retail

Primary Contact: **John Turner** Email: **johnturner@gswater.com**

**1.4 Retail Conservation Pricing**  
**Metered Water Rate Structure**

Customer Class	2009 Rate Type	Conserving Rate?	Customer Class	2010 Rate Type	Conserving Rate?
Single-Family	Increasing Block	Yes	Single-Family	Increasing Block	Yes
Multi-Family	Increasing Block	Yes	Multi-Family	Increasing Block	Yes
Commercial	Uniform	Yes	Commercial	Uniform	Yes
Industrial	Uniform	Yes	Industrial	Uniform	Yes
Institutional	Uniform	Yes	Institutional	Uniform	Yes
	<b>On Track</b>			<b>On Track</b>	

On Track if: Increasing Block, Uniform, Allocation, Standby Service; Not on Track if otherwise

Year Volumetric Rates began for Agencies with some Unmetered

Accounts

Info only

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





## CUWCC BMP RETAIL COVERAGE REPORT 2009-2010

### Foundation Best Management Practices for Urban Water Efficiency

#### BMP 2. EDUCATION PROGRAMS

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

Does a wholesale agency implement Public Outreach Programs for this utility's benefit?

Names of Wholesale Agencies

- 1) Contacts with the public (minimum = 4 times per year)
- 2) Water supplier contacts with media (minimum = 4 times per year, i.e., at least quarterly).
- 3) An actively maintained website that is updated regularly (minimum = 4 times per year, i.e., at least quarterly).
- 4) Description of materials used to meet minimum requirement.
- 5) Annual budget for public outreach program.
- 6) Description of all other outreach programs

	2009 Yes	2010 Yes	Yes/No
Upper San Gabriel Valley Municipal Water District and MWD Los Angeles	18	18	
Water supplier contacts with media (minimum = 4 times per year, i.e., at least quarterly).	8	8	
An actively maintained website that is updated regularly (minimum = 4 times per year, i.e., at least quarterly).	Yes	Yes	All 6 action types implemented and reported to CUWCC to be 'On Track'
Description of materials used to meet minimum requirement.	Newspaper contacts Television contacts	Newspaper contacts Television contacts	
Annual budget for public outreach program.	\$ 6,100	\$ 6,100	
Description of all other outreach programs	Full description will be online in the BMP reporting database	Full description will be online in the BMP reporting database	<b>On Track</b>
	<b>On Track</b>	<b>On Track</b>	



## CUWCC BMP RETAIL COVERAGE REPORT 2009-2010

### Foundation Best Management Practices for Urban Water Efficiency

#### 2.2 School Education Programs Implemented and Reported to CUWCC

Does a wholesale agency implement School Education Programs for this unity's benefit?  
Name of Wholesale Supplier?

3) Materials Distributed to K-6?

Materials distributed to 7-12 students?

	2009	2010
Does a wholesale agency implement School Education Programs for this unity's benefit? Name of Wholesale Supplier?	No Description available in the online BMP reporting system when available. Yes No	No Description available in the online BMP reporting system when available. Yes No
3) Materials Distributed to K-6? Materials distributed to 7-12 students?	<b>On Track</b>	<b>On Track</b> Info Only

## Appendix D

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### CPUC Water Conservation and Rationing Rules and Regulations



Rule No. 11

DISCONTINUANCE AND RESTORATION OF SERVICE

A. Customer's Request for Discontinuance of Service

- 1. A customer may have service discontinued by giving not less than two day's advance notice thereof to the utility. Charges for service may be required to be paid until the requested date of discontinuance or such later date as will provide not less than the required two days' advance notice.
- 2. When such notice is not given, the customer will be required to pay for service until two days after the utility has knowledge that the customer has vacated the premises or otherwise has discontinued water service.

B. Discontinuance of Service by Utility

1. For Nonpayment of Bills

- a. Past-Due Bills. When bills are rendered monthly or bimonthly, they will be considered past due if not paid within 19 days from the date of mailing. The utility shall allow every residential customer at least 19 days from the date of mailing its bill for services, postage prepaid, to make payment of the bill. The utility may not discontinue residential service for nonpayment of a delinquent account unless the utility first gives notice of the delinquency and impending discontinuance, at least 10 days prior to the proposed discontinuance, by means of a notice mailed, postage prepaid, to the customer to whom the service is provided if different than to whom the service is billed, not earlier than 19 days from the date of mailing the utility's bill for services. The 10-day discontinuance of service notice shall not commence until five days after the mailing of the notice.
- b. When a bill for water service has become past due and a 10-day discontinuance of residential service notice or a 7-day discontinuance of residential service notice for nonpayment has been issued, service may be discontinued if bill is not paid within the time required by such notice. The customer's service, however, will not be discontinued for nonpayment until the amount of any deposit made to establish credit for that service has been fully absorbed.

(T)

(Continued)

Rule No. 11

DISCONTINUANCE AND RESTORATION OF SERVICE

(Continued)

B. Discontinuance of Services by Utility (Continued)

1. For Nonpayment of Bills (Continued)

- c. Any customer, residential as well as nonresidential, who has initiated a billing complaint or requested an investigation within 5 days of receiving a disputed bill or who has, before discontinuance of service made a request for extension of the payment period of a bill asserted to be beyond the means of the customer to pay in full within the normal period for payment, shall not have residential water service discontinued for nonpayment during the pendency of an investigation by the utility of such customer complaint or request and shall be given an opportunity for review of the complaint, investigation, or request by a review manager of the utility. The review shall include consideration of whether a residential customer shall be permitted to make installment payments on any unpaid balance of the delinquent account over a reasonable period of time, not to exceed 12 months. Such service shall not be discontinued for nonpayment for any customer complying with an installment payment agreement entered into with the utility, provided the customer also keeps current his account for water service as charges accrue in each subsequent billing period. If a residential customer fails to comply with an installment payment agreement, the utility will give a 10-day discontinuance of service notice before discontinuing such service, but such notice shall not entitle the customer to further investigation by the utility.
- d. Any customer whose complaint or request for an investigation pursuant to subdivision (c) has resulted in an adverse determination by the utility may appeal the determination to the Commission. Any subsequent appeal of the dispute or complaint to the Commission shall be in accordance with the Commission adopted Rules of Practice and Procedure.
- e. Service to a residential water customer will not be discontinued for nonpayment when the customer has previously established to the satisfaction of the utility that:

(Continued)

Rule No. 11

DISCONTINUANCE AND RESTORATION OF SERVICE

(Continued)

B. Discontinuance of Services by Utility (Continued)

1. For Nonpayment of Bills (Continued)

e. (Continued)

- (1) The customer is elderly (age 62 or over) or handicapped,\* or upon certification of a licensed physical or surgeon that to discontinue water will be life threatening to the customer; and

\*Proof of age must be supported by certificate of birth, driver's license, passport or other reliable document. Proof of handicap must be by certification from a licensed physician, surgeon, public health nurse or social worker.

- (2) The customer is temporarily unable to pay for such service in accordance with the provisions of the utility's tariffs; and
- (3) The customer is willing to arrange installment payments satisfactory to the utility, over a period not to exceed 12 months, including arrangements for prompt payment of subsequent bills.

However, service may be discontinued to any customer who does not comply with an installment payment agreement or keep current his account for water service as charges accrue in each subsequent billing period.

- (f) A customer's residential service may be discontinued for nonpayment of a bill for residential service previously rendered him at any location served by the utility.

A nonresidential service may be discontinued for nonpayment of a bill for residential as well as nonresidential service previously rendered him at any location served by the utility.

The discontinuance of service notice as set forth in subdivision (b) will be given in both cases stated above before discontinuance of service takes place.

(Continued)

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Rule No. 11

DISCONTINUANCE AND RESTORATION OF SERVICE  
(Continued)

B. Discontinuance of Services by Utility (Continued)

1. For Nonpayment of Bills (Continued)

f. (Continued)

Residential services will not, however, be discontinued for nonpayment of bills for separate nonresidential service.

g. Service will not be discontinued by reason of delinquency in payment for service on any Saturday, Sunday, legal holiday, or at any time during which the business offices of the utility are not open to the public.

h. Where water service is provided to residential users in a multi-unit residential structure, mobilehome park, or permanent residential structures in a labor camp, where the owner, manager, or operator is listed by the utility as the customer of record, the utility will make every good faith effort to inform the users, when the account is in arrears, that service will be discontinued. Notice will be in as prescribed in subdivision (a) above, and in Rules Nos. 5 and 8. (T)

(1) Where said users are individually metered. (N)

The utility is not required to make service available to these users unless each user agrees to the terms and conditions of service and meets the requirement of the law and the utility's rules and tariffs. However, if one or more users are willing and able to assume responsibility for subsequent charges by these users to the account to the satisfaction of the utility, and if there is a practical physical means, legally available to the utility of selectively providing services to these users who have met the requirements of the utility's rules and tariffs, the utility will make service available to these users. For these selected users establishment of credit will be as prescribed in Rule No. 6, except that where prior service for a period of time is a condition for establishing credit with the utility, proof that is acceptable to the utility of residence and prompt payment of rent or other credit obligation during that period of time is a satisfactory equivalent. (N)

(Continued)

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Resolution No. \_\_\_\_\_

**SOUTHERN CALIFORNIA WATER COMPANY**  
630 E. FOOTHILL BLVD. P. O. BOX 9016  
SAN DIMAS, CALIFORNIA 91773-9016  
W

Revised Cal. P.U.C. Sheet No. 745-W

Cancelling Revised Cal. P.U.C. Sheet No. 3075-

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Rule No. 11

DISCONTINUANCE AND RESTORATION OF SERVICE

(Continued)

B. Discontinuance of Services by Utility (Continued)

1. For Nonpayment of Bills (Continued)

h. (Continued)

(2) Where said users are master metered.

The utility is not required to make service available to these users unless each user agrees to the terms and conditions of service, and meets the requirements of the law and the utility's rules and tariffs and the following:

The same Rule 11, item B.1.h. (1) above which applies to individually metered users also applies to master metered users, except a representative may act on the behalf of a master metered user, and the utility will not discontinue service in any of the following situations:

- (a) During the pendency of an investigation by the utility of a master-meter customer dispute or complaint.
- (b) When the master-metered customer has been granted an extension of the period for repayment of a bill.
- (c) For an indebtedness owned by the master metered customer to any other person or corporation or when the obligation represented by the delinquent account or any other indebtedness was incurred with a person or corporation other than the utility demanding payment therefor.
- (d) When a delinquent account relates to another property owned, managed, or operated by the master-metered customer.
- (e) When a public health or building officer certifies that determination would result in a significant threat to the health or safety of the residential occupants or the public. Proof of age or handicap are described in Rule 11.B.1.e.

(N)  
|  
(N)

(Continued)

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Rule No. 11

DISCONTINUANCE AND RESTORATION OF SERVICE

(Continued)

B. Discontinuance of Services by Utility (Continued)

1. For Nonpayment of Bills (Continued)

i. A reasonable attempt must be made by the utility to personally contact an adult person on the residential customer's premises either by telephone, or in person, at hours prior to discontinuance. For elderly or handicapped residential customers, the utility shall provide at least 48 hours' notice by telephone or in person. For these customers, if telephone or personal contact cannot be made, a notice of discontinuance of service shall be posted in a conspicuous location at the service address at least 48 hours prior to discontinuance. Such notice shall be independent of and in addition to, other notices(s) as may be prescribed in the utility's tariffs. (C)  
(N)  
(N)  
(N)

j. Residential Customer's Remedies Upon Receipt of Discontinuance Notice.

- (1) If upon receipt of a 10 day discontinuance notice, a residential customer is unable to pay, he must contact the utility before discontinuance of service to make payment arrangements to avoid discontinuance of service.
- (2) If, after contacting the utility, the residential customer alleges to the Commission an inability to pay and that he is unable to make payment arrangements with the utility he should write to the Commission's Consumer Affairs Branch (CAB) to make an informal complaint. This action must be taken within the 10-day discontinuance of service notice.
- (3) The CAB's resolution of the matter will be reported to the utility and the residential customer within ten business days after receipt of the informal complaint. If the customer is not satisfied with such resolution, he must file, within ten business days after the date of the CAB's letter, a formal complaint with the Commission under Public Utilities Code Section 1702 on a form provided by the CAB.

(Continued)

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Rule No. 11

DISCONTINUANCE AND RESTORATION OF SERVICE

(Continued)

B. Discontinuance of Services by Utility (Continued)

1. For Nonpayment of Bills (Continued)

j. Residential Customer's Remedies Upon Receipt of Discontinuance Notice.

(4) Failure of the residential as well as the nonresidential customer to observe these time limits shall entitle the utility to insist upon payment or, upon failure to pay, to discontinue the customer's service.

k. Designation of a Third-Party Representative (Elderly or Handicapped only)

(1) Customer must inform utility if he desires that a third party receive discontinuance or other notices on his behalf.

(2) Utility must be advised of name, address and telephone number of third party with a letter from third party accepting this responsibility.

(3) Only customers who certify that they are elderly or handicapped are entitled to third-party representation.\*

2. For Noncompliance with Rules

The utility may discontinue service to any customer for violation of these rules after it has given the customer at least five days' written notice of such intention. Where safety of water supply is endangered, service may be discontinued immediately without notice.

3. For Waste of Water

a. Where negligent or wasteful use of water exists on customer's premises, the utility may discontinue the service if such practices are not remedied within five days after it has given the customer written notice to such effect.

(Continued)

\* Proof of age must be supported by certificate of birth, driver's license, passport or other reliable document. Proof of handicap must be by certification from a licensed physician, public health nurse or social worker.

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**SOUTHERN CALIFORNIA WATER COMPANY**

630 E. FOOTHILL BLVD. - P. O. BOX 9016  
SAN DIMAS, CALIFORNIA 91773-9016

Revised Cal. P.U.C. Sheet No. 3748-W

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Rule No. 11

DISCONTINUANCE AND RESTORATION OF SERVICE

(Continued)

B. Continuance of Services by Utility (Continued)

3. For Waste of Water (Continued)

b. In order to protect itself against serious and unnecessary waste or misuse of water, the utility may meter any flat rate service and apply the regularly established meter rates where the customer continues to misuse or waste water beyond five days after the utility has given the customer written notice to remedy such practices.

4. For Unsafe Apparatus or Where Service is Detrimental or Damaging to the Utility or its Customers

If an unsafe or hazardous condition is found to exist on the customer's premise, or if the use of water thereon by apparatus, appliances, equipment or otherwise is found to be detrimental or damaging to the utility or its customers, the service may be shutoff without notice. The utility will notify the customer immediately of the reasons for the discontinuance and the corrective action to be taken by the customer before service can be restored.

5. For Fraudulent Use of Service

When the utility has discovered that a customer has obtained service by fraudulent means, or has diverted the water service for unauthorized use, the service to that customer may be discontinued without notice. The utility will not restore service to such customer until that customer has complied with all filed rules and reasonable requirements of the utility and the utility has been reimbursed for the full amount of the service rendered and the actual cost to the utility incurred by reason of the fraudulent use.

C. Restoration of Service

1. Reconnection Charge

Where service has been discontinued for violation of these rules or for nonpayment of bills, the utility may charge \$25.00 for reconnection of service during regular working hours or \$37.50 (I) for reconnection of service at other than regular working hours when the customer has requested that the reconnection be made at other than regular working hours.

(Continued)

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Rule No. 11

DISCONTINUANCE AND RESTORATION OF SERVICE

(Continued)

C. Restoration of Service (Continued)

2. To be Made During Regular Working Hours

The utility will endeavor to make reconnections during regular working hours on the day of the request, if the conditions permit; otherwise reconnections will be made on the regular working day following the day the request is made.

3. To Be Made at Other Than Regular Working Hours

When a customer has requested that the reconnection be made at other than regular working hours, the utility will reasonably endeavor to so make the reconnection if practicable under the circumstances.

4. Wrongful Discontinuance

A service wrongfully discontinued by the utility, must be restored without charge for the restoration to the customer within 24 hours.

D. Refusal to Serve

1 Conditions for Refusal

The utility may refuse to serve an applicant for service under the following conditions:

- a. If the applicant fails to comply with any of the rules as filed with the Public Utilities Commission.
- b. If the intended use of the service is of such a nature that it will be detrimental or injurious to existing customers.
- c. If, in the judgment of the utility, the applicant's installation for utilizing the service is unsafe or hazardous, or of such nature that satisfactory service cannot be rendered.

(Continued)

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Resolution No. W 3770

Rule No. 11

DISCONTINUANCE AND RESTORATION OF SERVICE

(Continued)

C. Restoration of Service (Continued)

1. Conditions for Refusal (Continued)

d. Where service has been discontinued for fraudulent use, the utility will not serve an applicant until it has determined that all conditions of fraudulent use or practice has been corrected.

2. Notification to Customers

When an applicant is refused service under the provisions of this rule, the utility will notify the applicant promptly of the reason for the refusal to service and of the right of applicant to appeal the utility's decision to the Public Utilities Commission.

**RULE 14.1**  
**WATER CONSERVATION AND RATIONING PLAN**

Page 1

GENERAL INFORMATION

1. If water supplies are projected to be insufficient to meet normal customer demand, and are beyond the control of the utility, the utility may elect to implement voluntary conservation using the portion of this plan set forth in Section A of this Rule, after notifying the Director of the Commission's Division of Water and Audits of its intent, via a letter in both hard-copy and e-mailed formats.
2. Prior to declaration of mandatory rationing, a utility may request authorization of a Schedule 14.1 – Staged Mandatory Water Conservation and Rationing tariff, via a Tier 2 advice letter.
3. If, in the opinion of the utility, more stringent water measures are required, the utility shall request Commission authorization to implement the staged mandatory conservation and rationing measures set forth in Sections B through E.
4. The utility shall file a Tier 1 advice letter to request activation of a particular stage of Schedule 14.1 – Staged Mandatory Water Conservation and Rationing tariff.
  - a. If a Declaration of Mandatory Rationing is made by utility or governing agency, or
  - b. If the utility is unable to address voluntary conservation levels set by itself, supplier, or governing agency, or
  - c. If the utility chooses to subsequently activate a different stage
5. When Schedule 14.1 is in effect and the utility determines that water supplies are again sufficient to meet normal demands, and mandatory conservation and rationing measures are no longer necessary, the utility shall seek Commission approval via a Tier 1 advice letter to de-activate the particular stage of mandatory rationing that had been authorized.

(N)

(N)

(Continued)

Advice Letter No. 1325-WA  
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Resolution No. \_\_\_\_\_

**RULE 14.1**  
**WATER CONSERVATION AND RATIONING PLAN**

Page 2  
(N)

GENERAL INFORMATION (Continued)

6. In the event of a water supply shortage requiring a voluntary or mandatory program, the utility shall make available to its customers water conservation kits as required by its version of Rule 20. The utility shall notify all customers of the availability of conservation kits via a bill insert or direct mailers.

**A. CONSERVATION - NON-ESSENTIAL OR UNAUTHORIZED WATER USE**

No customer shall use utility-supplied water for non-essential or unauthorized uses, including but not limited to:

1. Use of potable water for more than minimal landscaping, as defined in the landscaping regulated of the jurisdiction or as described in Article 10.8 of the California Government Code in connection with new construction;
2. Use through any meter when the company has notified the customer in writing to repair a broken or defective plumbing, sprinkler, watering or irrigation system and the customer has failed to effect such repairs within five business days;
3. Use of potable water which results in flooding or runoff in gutters or streets;
4. Individual private washing of cars with a hose except with the use of a positive action shut-off nozzle. Use of potable water for washing commercial aircraft, cars, buses, boats, trailers, or other commercial vehicles at any time, except at commercial or fleet vehicle or boat washing facilities operated at a fixed location where equipment using water is properly maintained to avoid wasteful use;
5. Use of potable water washing buildings, structures, , driveways, patios, parking lots, tennis courts, or other hard-surfaced areas, except in the cases where health and safety are at risk;
6. Use of potable water to irrigate turf, lawns, gardens, or ornamental landscaping by means other than drip irrigation, or hand watering without quick acting positive action shut-off nozzles, on a specific schedule, for example: 1) before 8:00 a.m. and after 7:00 p.m.; 2) every other day; or 3) selected days of the week;

(N)

(Continued)

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**RULE 14.1**  
**WATER CONSERVATION AND RATIONING PLAN**

Page 3

GENERAL INFORMATION (Continued)

7. Use of potable water for watering streets with trucks, except for initial wash-down for construction purposes (if street sweeping is not feasible), or to protect the health and safety of the public;
8. Use of potable water for construction purposes, such as consolidation of backfill, dust control, or other uses unless no other source of water or other method can be used.
9. Use of potable water for construction purposes unless no other source of water or other method can be used;
10. Use of potable water for street cleaning;
11. Operation of commercial car washes without recycling at least 50% of the potable water used per cycle;
12. Use of potable water for watering outside plants, lawn, landscape and turf areas during certain hours if and when specified in Schedule No. 14.1 when the schedule is in effect;
13. Use of potable water for decorative fountains or the filling or topping off of decorative lakes or ponds. Exceptions are made for those decorative fountains, lakes, or ponds which utilize recycled water;
14. Use of potable water for the filling or refilling of swimming pools.
15. Service of water by any restaurant except upon the request of a patron; and
16. Use of potable water to flush hydrants, except where required for public health or safety.

(N)

**B. STAGED MANDATORY RATIONING OF WATER USAGE**

1. Prior to declaration of mandatory rationing, a utility may request authorization of a Schedule 14.1 – Staged Mandatory Water Conservation and Rationing tariff, via a Tier 2 advice letter, with full justification. The utility may not institute Schedule 14.1 until it has been authorized to do so by the Commission.

(N)

(Continued)

**RULE 14.1**  
**WATER CONSERVATION AND RATIONING PLAN**

Page 4

STAGED MANDATORY RATIONING OF WATER USAGE (Continued)

(N)

- a. A staged Schedule 14.1 that has been authorized by the Commission shall remain dormant until triggered by specific conditions detailed in the Schedule 14.1 tariff and utility has requested and received authorization for activating a stage by Commission.
- b. Notice of the Tier 2 advice letter (example shown in Appendix C) and associated public participation hearing shall be provided to customers under General Order (GO) 96-B rules.
- c. Utility shall comply with all requirements of Sections 350-358 of the California Water Code.
- d. The Tier 2 advice letter requesting institution of a Schedule 14.1 shall include but not be limited to:
  - i. Proposed Schedule 14.1 tariff, which shall include but not be limited to:
    1. Applicability,
    2. Territory applicable to,
    3. A detailed description of each Stage of Rationing,
    4. A detailed description of the Trigger that Activates each Stage of Rationing,
    5. A detailed description of each water use restriction for each stage of rationing.
    6. Water use violation levels, written warning levels, associated fines, and exception procedures,

(N)

(Continued)

**RULE 14.1**  
**WATER CONSERVATION AND RATIONING PLAN**

STAGED MANDATORY RATIONING OF WATER USAGE (Continued)

Page 5

- 7. Conditions for installation of a flow restrictor, (N)
- 8. Charges for removal of flow restrictors, and
- 9. Special Conditions
- ii. Justification for, and documentation and calculations in support of plan, including but not limited to each item in B.1.d.i above.
- 2. Number of Stages requested by each utility/district may vary, depending on specifics of water shortage event.
- 3. The utility shall file a Tier 1 advice letter to request activation of a particular stage of Schedule 14.1 – Staged Mandatory Water Conservation and Rationing tariff.
  - a. If a Declaration of Mandatory Rationing is made by utility or governing agency,
  - b. If the utility is unable to address voluntary conservation levels set by itself or governing agency, or
  - c. If the utility chooses to subsequently activate a different stage.
  - d. The Tier 1 advice letter requesting activation of a Schedule 14.1 shall include but not be limited to:
    - i. Justification for activating this particular stage of mandatory rationing, as well as period during which this particular stage of mandatory conservation and rationing measures will be in effect.
    - ii. When the utility requests activation of a particular Stage, it shall notify its customers as detailed in Section E, below.
- 4. All monies collected by the utility through water use violation fines shall not be accounted for as income.
- 5. All expenses incurred by utility to implement Rule 14.1 and Schedule 14.1 that have not been considered in a General Rate Case or other proceeding, shall be recoverable by utility if determined to be reasonable by Commission.

(N)

(Continued)

**RULE 14.1**  
**WATER CONSERVATION AND RATIONING PLAN**

STAGED MANDATORY RATIONING OF WATER USAGE (Continued)

Page 6

(N)

- a. These monies shall be accumulated by the utility in a separate memorandum account for disposition as directed or authorized from time to time by the Commission.

**C. ENFORCEMENT OF STAGED MANDATORY CONSERVATION AND RATIONING**

1. The water use restrictions of the conservation program, in Section A of this rule, become mandatory when the authorized Schedule 14.1-Staged Mandatory Rationing Program is triggered, the utility files a Tier 1 advice letter requesting activation of a particular stage, and authorization is received from the Commission.
  - a. In the event a customer is observed to be using water for any nonessential or unauthorized use as defined in Section A of this rule, the utility may charge a water use violation fine in accordance with Schedule No. 14.1.
2. The utility may, after one written warning and one non-essential or unauthorized use violation notice, install a flow-restricting device on the service line of any customer observed by utility personnel to be using water for any non-essential or unauthorized use as defined in Section A above.
3. A flow restrictor shall not restrict water delivery by greater than 50% of normal flow. The restricting device may be removed only by the utility, only after a three-day period has elapsed, and only upon payment of the appropriate removal charge as set forth in Schedule No. 14.1.
4. After the removal of the restricting device, if any non-essential or unauthorized use of water shall continue, the utility may install another flow-restricting device. This device shall remain in place until water supply conditions warrant its removal and until the appropriate charge for removal has been paid to the utility.
5. Any tampering with flow restricting device by customer can result in fines or discontinuation of water use at the utility's discretion.

(N)

(Continued)

**RULE 14.1**  
**WATER CONSERVATION AND RATIONING PLAN**

ENFORCEMENT OF STAGED MANDATORY CONSERVATION AND RATIONING

(Continued)

Page 7  
(N)

6. If, despite installation of such flow-restricting device pursuant to the provisions of the previous enforcement conditions, any such non-essential or unauthorized use of water shall continue, then the utility may discontinue water service to such customer. In such latter event, a charge as provided in Rule No. 11 shall be paid to the utility as a condition to restoration of service.
7. All monies collected by the utility through water use violation fines shall not be accounted for as income. All expenses incurred by utility to implement Rule 14.1 and Schedule 14.1 that have not been considered in a General Rate Case or other proceeding, shall be recoverable by utility if determined to be reasonable by Commission. These additional monies shall be accumulated by the utility in a separate memorandum account for disposition as directed or authorized from time to time by the Commission.
8. The charge for removal of a flow-restricting device shall be in accordance with Schedule No. 14.1.

**D. APPEAL PROCEDURE**

1. Any customer who seeks a variance from any of the provisions of this water conservation and rationing plan shall notify the utility in writing, explaining in detail the reason for such a variation. The utility shall respond to each such request in writing.
2. Any customer not satisfied with the utility's response may file an appeal with the staff of the Commission. The customer and the utility will be notified of the disposition of such appeal by letter from the Executive Director of the Commission.

(N)

(Continued)

**RULE 14.1**  
**WATER CONSERVATION AND RATIONING PLAN**

APPEAL PROCEDURE (Continued)

Page 8

(N)

3. If the customer disagrees with such disposition, the customer shall have the right to file a formal complaint with the Commission. Except as set forth in this Section, no person shall have any right or claim in law or in equity, against the utility because of, or as a result of, any matter or thing done or threatened to be done pursuant to the provisions of this water conservation and rationing plan.

E. PUBLICITY

1. As stated under Section B.1.b and c, when a utility requests authorization of a Schedule 14.1 – Staged Mandatory Water Conservation and Rationing tariff, via a Tier 2 advice letter, it shall provide notice of the Tier 2 advice letter (example shown in Attachment C) and associated public meeting provided to customers, under General Order (GO) 96-B rules, and shall comply with all requirements of Sections 350-358 of the California Water Code (CWC), including but not limited to the following:
  - a. In order to be in compliance with both the GO and CWC, the utility shall provide notice via both newspaper and bill insert/direct mailing.
  - b. Utility shall file one notice for each advice letter filed, that includes both notice of the filing of the Tier 2 advice letter as well as the details of the public meeting (date, time, place, etc).
  - c. The public meeting shall be held after the utility files the Tier 2 advice letter, and before the Commission authorizes implementation of the tariff.
  - d. Utility shall consult with Division of Water and Audits staff prior to filing advice letter, in order to determine details of public meeting.
2. In the event that a Schedule 14.1-Staged Mandatory Rationing Plan is triggered, and an utility requests activation through the filing of a Tier 1 advice letter, the utility shall notify its customers and provide each customer with a copy of Schedule 14.1 by means of bill insert or direct mailing. Notification shall take place prior to imposing any fines associated with this plan.

(N)

(Continued)

**RULE 14.1**  
**WATER CONSERVATION AND RATIONING PLAN**

PUBLICITY (Continued)

Page 9

3. During the period that a stage of Schedule 14.1 is activated, the utility shall provide customers with updates in at least every other bill, regarding its water supply status and the results of customers' conservation efforts.

(N)

(N)

Rule No. 20

WATER CONSERVATION

(N)

A. Purpose

The purpose of this rule is to ensure that water resources available to the utility are put to a reasonable beneficial use and that the benefits of the utility's water supply and service extend to the largest number of persons.

B. Waste of Water Discouraged

Refer to Rule 11 B. (3).

C. Use of Water-Saving Devices and Practices

Each customer of the utility is urged to install devices to reduce the quantity of water to flush toilets and to reduce the flow rate of showers.

Each customer is further urged to adopt such other water usage and reuse practices and procedures as are feasible and reasonable.

D. Water-Saving Kits

The utility will make available, without initial cost to the customer, for use in each residence receiving water service from the utility, a water-saving kit containing the following:

- (1) A device or devices for reducing toilet flush water requirements;
- (2) A device or devices for reducing shower flow rates;
- (3) A dye tablet or tablets for determining if a toilet tank leaks;
- (4) Other devices from time to time approved by the utility;
- (5) Installation and other instructions and information pertinent to conservation of water.

(N)

ISSUED BY

**W. W. FRANKLIN**

President

Date Filed June 12, 1978

Effective Date July 12, 1978

Resolution No. \_\_\_\_\_

Advice Letter No. 521-W

Decision No. 88466

# Appendix E

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DMM Supporting Documents



Schedule No. R3-1-R  
Region 3 Customer Service Areas  
RESIDENTIAL METERED SERVICE

APPLICABILITY

Applicable to all residential metered water services provided to single-family residential customers.

TERRITORY

Barstow and vicinity, San Bernardino County, the City of Claremont, portions of Montclair, Pomona, Upland, within the area north of Thompson Creek and the Padua Hills Service Area, and adjacent unincorporated territory in Los Angeles and San Bernardino Counties, the City of Calipatria and community of Niland, and the adjacent territory in Imperial County, the vicinity of Victorville and Lucerne, San Bernardino County, all or portions of the Cities of Cypress, La Palma, Los Alamitos, Placentia, Seal Beach, Stanton, Yorba-Linda and vicinity, Cowan Heights, Orange County; San Dimas, Charter Oak and vicinity, Los Angeles County; and portions of the Cities of Arcadia, El Monte, Irwindale, Monrovia, Monterey Park, Rosemead, San Gabriel, Temple City and vicinity, Los Angeles County.

RATES

Quantity Rate:		
First 1,300 cu. Ft., per 100 cu. ft.....		\$ 2.673
Next 800 cu. Ft., per 100 cu. ft.....		\$ 3.074
Over 2,100 cu. Ft., per 100 cu. ft.....		\$ 3.535
Service Charges:		<u>Per Meter</u>
		<u>Per Month</u>
For 5/8 x 3/4-inch meter.....		\$ 15.15
For 3/4-inch meter.....		22.70
For 1-inch meter.....		37.80
For 1 1/2 inch meter.....		75.65
For 2-inch meter.....		121.00
For 3-inch meter.....		227.00
For 4-inch meter.....		378.00
For 6-inch meter.....		756.00
For 8-inch meter.....		1,210.00
For 10-inch meter.....		1,739.00
Sprinkler System Services		\$16.65

The Service Charge is a readiness-to-serve charge applicable to all metered service and to which is added the charge for water used computed at the Quantity Rate.

SPECIAL CONDITIONS

1. All bills are subject to the reimbursement fee set forth on Schedule No. UF.
2. Residential customers are defined as all single family customers with one dwelling unit that are individually metered.
3. As authorized by the California Public Utilities Commission, an amount of \$0.156 per Ccf for Tier 1, \$0.180 per Ccf for Tier 2 and \$0.207 per Ccf for Tier 3 is to be added to the Quantity Rate for a period of 24 months, beginning on the effective date of Advice Letter 1381-W, which is March 21, 2010. This surcharge will apply to all customers covered by the WRAM in 2009 which includes metered customers in Barstow, Claremont, San Gabriel, Los Alamitos, Placentia, San Dimas and Calipatria customers who were billed at the metered rate as of December 31, 2009
4. As authorized by the California Public Utilities Commission, an amount of \$0.0735 per Ccf for Tier 1, \$0.0845 per Ccf for Tier 2 and \$0.0972 per Ccf for Tier 3 is to be added to the Quantity Rate for a period of 12 months, beginning on the effective date of Advice Letter 1401-W, which is June 7, 2010. This surcharge will recover the undercollection in the CARW Balancing Account, as of December 31, 2009.
5. Pursuant to Decision 10-11-035, a surcharge of \$0.0035 per Ccf will be applied to all metered customers bills excluding customers that are receiving the CARW credit, beginning on the effective date of Advice Letter 1417-W. This surcharge will offset the CARW credits and CARW administrative program costs recorded in the CARW Balancing Account.
6. As authorized by the California Public Utilities Commission in D. 10-11-035, an amount of \$0.20214 per Ccf is to be added to the Quantity Rate for a period of 24 months, beginning on January 1, 2011. This surcharge recovers the difference between the interim rates and final rates for the period of January 1, 2010 through December 1, 2010.
7. As authorized by the California Public Utilities Commission, an amount of \$0.0053 per Ccf for Tier 1 and \$0.0061 per Ccf for Tier 2 is to be added to the Quantity Rate for a period of 12 months, beginning on the effective date of Advice Letter 1408-WA. This surcharge will recover the undercollection in the Orange County Annexation Memorandum Account, as of March 31, 2010. (N)

ISSUED BY

Date Filed: January 20, 2011

Advice Letter No. 1408-WA

**R. J. SPROWLS**

Effective Date: January 25, 2011

Decision No. \_\_\_\_\_

President

Resolution No. W-4862

Schedule No. R3-1-NR  
Region 3 Customer Service Areas  
NON-RESIDENTIAL METERED SERVICE

APPLICABILITY

Applicable to all metered water service except those covered under R3-1-R.

TERRITORY

Barstow and vicinity, San Bernardino County, the City of Claremont, portions of Montclair, Pomona, Upland, within the area north of Thompson Creek and the Padua Hills Service Area, and adjacent unincorporated territory in Los Angeles and San Bernardino Counties, the City of Calipatria and community of Niland, and the adjacent territory in Imperial County, the vicinity of Victorville and Lucerne, San Bernardino County, all or portions of the Cities of Cypress, La Palma, Los Alamitos, Placentia, Seal Beach, Stanton, Yorba-Linda and vicinity, Cowan Heights, Orange County; San Dimas, Charter Oak and vicinity, Los Angeles County; and portions of the Cities of Arcadia, El Monte, Irwindale, Monrovia, Monterey Park, Rosemead, San Gabriel, Temple City and vicinity, Los Angeles County.

RATES

Quantity Rate:		
For all water delivered, per 100 cu. ft.....		\$ 2.489
Service Charges:		<u>Per Meter</u>
For 5/8 x 3/4-inch meter.....		<u>Per Month</u>
For 3/4-inch meter.....		\$ 21.45
For 1-inch meter.....		32.15
For 1 1/2 inch meter.....		53.55
For 2-inch meter.....		107.00
For 3-inch meter.....		171.00
For 4-inch meter.....		321.00
For 6-inch meter.....		536.00
For 8-inch meter.....		1,071.00
For 10-inch meter.....		1,714.00
		2,464.00

The Service Charge is a readiness-to-serve charge applicable to all metered service and to which is added the charge for water used computed at the Quantity Rate.

SPECIAL CONDITIONS

1. All bills are subject to the reimbursement fee set forth on Schedule No. UF.
2. As authorized by the California Public Utilities Commission, an amount of \$0.154 per Ccf is to be added to the Quantity Rate for a period of 24 months, beginning on the effective date of Advice Letter 1381-W, which is March 21, 2010. This surcharge will apply to all customers covered by the WRAM in 2009 which includes metered customers in Barstow, Claremont, San Gabriel, Los Alamitos, Placentia, San Dimas and Calipatria customers who were billed at the metered rate as of December 31, 2009.
3. As authorized by the California Public Utilities Commission, an amount of \$0.06879 per Ccf is to be added to the Quantity Rate for a period of 12 months, beginning on the effective date of Advice Letter 1401-W, which is June 7, 2010. This surcharge will recover the undercollection in the CARW Balancing Account, as of December 31, 2009.
4. Pursuant to Decision 10-11-035, a surcharge of \$0.0035 per Ccf will be applied to all metered customers bills excluding customers that are receiving the CARW credit, beginning on the effective date of Advice Letter 1417-W. This surcharge will offset the CARW credits and CARW administrative program costs recorded in the CARW Balancing Account.
5. As authorized by the California Public Utilities Commission in D. 10-11-035, an amount of \$0.20214 per Ccf is to be added to the Quantity Rate for a period of 24 months, beginning on January 1, 2011. This surcharge recovers the difference between the interim rates and final rates for the period of January 1, 2010 through December 1, 2010.
6. As authorized by the California Public Utilities Commission, an amount of \$0.0047 per Ccf is to be added to the Quantity Rate (N) for a period of 12 months, beginning on the effective date of Advice Letter 1408-WA. This surcharge will recover the (N) undercollection in the Orange County Annexation Memorandum Account, as of March 31, 2010. (N)

ISSUED BY

Date Filed: January 20, 2011

Advice Letter No. 1408-WA

**R. J. SPROWLS**

Effective Date: January 25, 2011

Decision No. \_\_\_\_\_

President

Resolution No. W-4862

# AWWA WLCC Water Audit Software: Reporting Worksheet

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WASv3.0

[Back to Instructions](#)

Water Audit Report for: **Golden State Water Company - South Arcadia**  
 Reporting Year: **2008**

Please enter data in the white cells below. Where possible, metered values should be used; if metered values are unavailable please estimate a value. Indicate this by selecting a choice from the gray box to the left, where M = measured (or accurately known value) and E = estimated.

**All volumes to be entered as: ACRE-FEET PER YEAR**

### WATER SUPPLIED

Volume from own sources:	<input type="button" value="M"/>	<input type="text" value="4,197.000"/>	acre-ft/yr
Master meter error adjustment:	<input type="button" value="E"/>	<input type="text" value="0.000"/>	under-registered acre-ft/yr
Water imported:	<input type="button" value="M"/>	<input type="text" value="24.000"/>	acre-ft/yr
Water exported:	<input type="button" value="E"/>	<input type="text" value="0.000"/>	acre-ft/yr

**WATER SUPPLIED:**  acre-ft/yr

### AUTHORIZED CONSUMPTION

Billed metered:	<input type="button" value="M"/>	<input type="text" value="3,817.000"/>	acre-ft/yr
Billed unmetered:	<input type="button" value="E"/>	<input type="text" value="0.000"/>	acre-ft/yr
Unbilled metered:	<input type="button" value="M"/>	<input type="text" value="61.880"/>	acre-ft/yr
Unbilled unmetered:	<input type="button" value="E"/>	<input type="text" value="52.763"/>	acre-ft/yr

**AUTHORIZED CONSUMPTION:**  acre-ft/yr

Click here:  for help using option buttons below

Pcnt:  Value:

Use buttons to select percentage OR value

### WATER LOSSES (Water Supplied - Authorized Consumption)

acre-ft/yr

#### Apparent Losses

Unauthorized consumption:	<input type="button" value="E"/>	<input type="text" value="10.553"/>	acre-ft/yr
Customer metering inaccuracies:	<input type="button" value="E"/>	<input type="text" value="79.161"/>	acre-ft/yr
Systematic data handling errors:	<input type="button" value="E"/>	<input type="text" value="0.000"/>	acre-ft/yr
Apparent Losses:		<input type="text" value="89.713"/>	acre-ft/yr

Pcnt:  Value:   
 Value:

#### Real Losses

Real Losses = (Water Losses - Apparent Losses):  acre-ft/yr

**WATER LOSSES:**  acre-ft/yr

### NON-REVENUE WATER

**NON-REVENUE WATER:**  acre-ft/yr

### SYSTEM DATA

Length of mains:	<input type="button" value="M"/>	<input type="text" value="58.8"/>	miles
Number of active AND inactive service connections:	<input type="button" value="M"/>	<input type="text" value="7,475"/>	
Connection density:		<input type="text" value="127"/>	conn./mile main
Average length of customer service line:	<input type="button" value="E"/>	<input type="text" value="25.0"/>	ft (pipe length between curbstop and customer meter or property boundary)
Average operating pressure:	<input type="button" value="M"/>	<input type="text" value="65.4"/>	psi

### COST DATA

Total annual cost of operating water system:	<input type="button" value="E"/>	<input type="text" value="\$2,655,337"/>	\$/Year
Customer retail unit cost (applied to Apparent Losses):	<input type="button" value="E"/>	<input type="text" value="\$25.44"/>	\$/100 cubic feet (ccf)
Variable production cost (applied to Real Losses):	<input type="button" value="E"/>	<input type="text" value="\$549.00"/>	\$/acre-ft/yr

### DATA REVIEW - Please review the following information and make changes above if necessary:

- Input values should be indicated as either measured or estimated. You have entered:
  - 7 as measured values
  - 1 as estimated values
  - 2 as default values
  - 7 without specifying measured, estimated or default
- Water Supplied Data: No problems identified
- Unbilled unmetered consumption: No problems identified
- Unauthorized consumption: No problems identified
- It is important to accurately measure the master meter - you have entered the measurement type as: measured
- Cost Data: No problems identified

### PERFORMANCE INDICATORS

#### Financial Indicators

Non-revenue water as percent by volume:	<input type="text" value="9.6%"/>
Non-revenue water as percent by cost:	<input type="text" value="43.9%"/>
Annual cost of Apparent Losses:	<input type="text" value="\$994,173"/>
Annual cost of Real Losses:	<input type="text" value="\$109,605"/>

#### Operational Efficiency Indicators

Apparent Losses per service connection per day:	<input type="text" value="10.71"/>	gallons/connection/day
Real Losses per service connection per day*:	<input type="text" value="23.84"/>	gallons/connection/day
Real Losses per length of main per day*:	<input type="text" value="N/A"/>	
Real Losses per service connection per day per psi pressure:	<input type="text" value="0.36"/>	gallons/connection/day/psi
<input type="button" value="M"/> Unavoidable Annual Real Losses (UARL):	<input type="text" value="40.70"/>	million gallons/year
<input type="button" value="M"/> Infrastructure Leakage Index (ILI) [Real Losses/UARL]:	<input type="text" value="1.60"/>	

\* only the most applicable of these two indicators will be calculated



## Appendix F

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### Groundwater Basin Water Rights Stipulation/Judgment



**SUPERIOR COURT OF THE STATE OF CALIFORNIA  
FOR THE COUNTY OF LOS ANGELES**

**UPPER SAN GABRIEL VALLEY  
MUNICIPAL WATER DISTRICT**

**Plaintiff,**

**vs.**

**CITY OF ALHAMBRA, et al,**

**Defendants.**

---

**No. 924128**

**AMENDED JUDGMENT  
(and Exhibits Thereto),**

**Honorable Florence T. Pickard  
Assigned Judge Presiding**

**Original Judgment  
Signed and Filed: December 29, 1972,  
Entered: January 4, 1973  
Book 6741, Page 197**

**JUDGMENT AS AMENDED AUGUST 24, 1989**

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Ralph B. Helm  
Suite 214  
4605 Lankershim Boulevard  
North Hollywood, CA 91602  
Telephone (818) 769-2002  
  
Attorney for Watermaster

SUPERIOR COURT OF CALIFORNIA, COUNTY OF LOS ANGELES

UPPER SAN GABRIEL VALLEY )  
MUNICIPAL WATER DISTRICT, )  
 )  
Plaintiff, )  
 )  
vs. )  
CITY OF ALHAMBRA, et al., )  
 )  
Defendants.. )  
\_\_\_\_\_ )

No. 924128  
  
AMENDED JUDGMENT  
  
(And Exhibits Thereto)

HONORABLE FLORENCE T. PICKARD

Assigned Judge Presiding

DEPARTMENT 38

August 24, 1989

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EXHIBITS

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28 Tributary to Whittier Narrows"

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Exhibits Continued

- "B" -- Boundaries of Relevant Watershed
- "C" -- Table Showing Base Annual Diversion Rights  
of Certain Diverters
- "D" -- Table Showing Rights and Pumper's Share of Each Pumper
- "E" -- Table Showing Production Rights of Each  
Integrated Producer
- "F" -- Table Showing Special Category Rights
- "G" -- Table Showing Non-consumptive Users
- "H" -- Watermaster Operating Criteria
- "J" -- Puente Narrows Agreement
- "K" -- Overlying Rights
- "L" -- List of Producers and Their Designees (New)
- "M" -- Watermaster Members, Officers, and Staff Including  
Calendar Year 1989 (New)

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8 SUPERIOR COURT OF CALIFORNIA, COUNTY OF LOS ANGELES  
9

10	UPPER SAN GABRIEL VALLEY )	
11	MUNICIPAL WATER DISTRICT, )	No. 924128
	Plaintiff, )	AMENDED JUDGMENT
12	)	
13	vs. )	
14	CITY OF ALHAMBRA, et al., )	
15	Defendants. )	Hearing: August 24, 1989
16	_____ )	Department 38, 9:00 A.M.

17 The Petition of the MAIN SAN GABRIEL BASIN WATERMASTER  
18 for this AMENDED JUDGMENT herein, came on regularly for hearing  
19 in this Court before the HONORABLE FLORENCE T. PICKARD, ASSIGNED  
20 JUDGE PRESIDING, on August 24, 1989; Ralph B. Helm appeared as  
21 attorney for Watermaster - Petitioner; and good cause appearing,  
22 the following ORDER and AMENDED JUDGMENT are, hereby, made:

23 I. INTRODUCTION

24 1. Pleadings, Parties, and Jurisdiction. The complaint  
25 herein was filed on January 2, 1968, seeking an adjudication of  
26 water rights. By amendment of said complaint and dismissals of  
27 certain parties, said adjudication was limited to the Main San  
28 Gabriel Basin and its Relevant Watershed. Substantially all

1 defendants and the cross-defendant have appeared herein, certain  
2 defaults have been entered, and other defendants dismissed.  
3 By the pleadings herein and by Order of this Court, the issues  
4 have been made those of a full inter se adjudication of water  
5 rights as between each and all of the parties. This Court has  
6 jurisdiction of the subject matter of this action and of the  
7 parties herein.

8 2. Stipulation for Entry of Judgment. A substantial  
9 majority of the parties, by number and by quantity of rights  
10 herein Adjudicated, Stipulated for entry of a Judgment in  
11 substantially the form of the original Judgment herein.

12 3. Lis Pendens. (New) A Lis Pendens was recorded August  
13 20, 1970, as Document 2650, in Official Records of Los Angeles  
14 County, California, in Book M 3554, Page 866.

15 4. Findings and Conclusions. (Prior Judgment Section 3)  
16 Trial was had before the Court, sitting without a jury, John  
17 Shea, Judge Presiding, commencing on October 30, 1972, and  
18 Findings of Fact and Conclusions of Law have been entered  
19 herein.

20 5. Judgment. (New) Judgment (and Exhibits Thereto),  
21 Findings of Fact and Conclusions of Law (and Exhibits thereto),  
22 Order Appointing Watermaster, and Initial Watermaster Order were  
23 signed and filed December 29, 1972, and Judgment was entered  
24 January 4, 1973, in Book 6791, Page 197.

25 6. Intervention After Judgment. (New) Certain defendants  
26 have, pursuant to the Judgment herein and the Court's continuing  
27 jurisdiction, intervened and appeared herein after entry of  
28 Judgment.

1           7. Amendments to Judgment. (New) The original Judgment  
2 herein was previously amended on March 29, 1979, by: (1) adding  
3 definition (r [1]) thereto, (2) amending definition (bb)  
4 therein, (3) adding Exhibit "K" thereto, (4) adding Sections  
5 14.5 and 16.5 thereto, and (5) amending Sections 37(b), 37(c),  
6 37(d), and Section 47 therein; it was again amended on December  
7 21, 1979, by amending Section 38(c) thereof; again amended on  
8 February 21, 1980, by amending Section 24 thereof; again amended  
9 on September 12, 1980, by amending Sections 35(a), 37(a), and  
10 38(a); again amended on December 22, 1987, by adding Section  
11 37(e) thereto; and last amended on July 22, 1988 by amending  
12 Section 37(e) thereof and Ordering an Amended Judgment herein.

13           8. Transfers. (New) Since the entry of Judgment herein  
14 there have been numerous transfers of Adjudicated water rights.  
15 To the date hereof, said transfers are reflected in Exhibits  
16 "C", "D", and "E".

17           9. Producers and Their Designees. (New) The current  
18 status of Producers and their Designees is shown on Exhibit "L".

19           10. Definitions. (Prior Judgment Section 4) As used in  
20 this Judgment, the following terms shall have the meanings  
21 herein set forth:

22           (a) Base Annual Diversion Right -- The average annual  
23 quantity of water which a Diverter is herein found to have the  
24 right to Divert for Direct Use.

25           (b) Direct Use -- Beneficial use of water other than  
26 for spreading or Ground Water recharge.

27           (c) Divert or Diverting -- To take waters of any  
28 surface stream within the Relevant Watershed.

- 1 (d) Diverter -- Any party who Diverts.
- 2 (e) Elevation -- Feet above mean sea level.
- 3 (f) Fiscal Year -- A period July 1 through June 30,  
4 following.
- 5 (g) Ground Water -- Water beneath the surface of the  
6 ground and within the zone of saturation.
- 7 (h) Ground Water Basin -- An interconnected permeable  
8 geologic formation capable of storing a substantial Ground Water  
9 supply.
- 10 (i) Integrated Producer -- Any party that is both a  
11 Pumper and a Diverter, and has elected to have its rights  
12 adjudicated under the optional formula provided in Section 18 of  
13 this Judgment.
- 14 (j) In-Lieu Water Cost -- The differential between a  
15 Producer's non-capital cost of direct delivery of Supplemental  
16 Water and the cost of Production of Ground Water (including  
17 depreciation on Production facilities) to a particular Producer  
18 who has been required by Watermaster to take direct delivery of  
19 Supplemental Water in lieu of Ground Water.
- 20 (k) Key Well -- Baldwin Park Key Well, being elsewhere  
21 designated as State Well No. 1S/10W-7R2, or Los Angeles County  
22 Flood Control District Well No. 3030-F. Said well has a ground  
23 surface Elevation of 386.7.
- 24 (l) Long Beach Case -- Los Angeles Superior Court  
25 Civil Action No. 722647, entitled, "Long Beach, et al., v. San  
26 Gabriel Valley Water Company, et al."
- 27 (m) Main San Gabriel Basin or Basin -- The Ground  
28 Water Basin underlying the area shown as such on Exhibit "A".

1 (n) Make-up Obligation -- The total cost of meeting  
2 the obligation of the Basin to the area at or below Whittier  
3 Narrows, pursuant to the Judgment in the Long Beach Case.

4 (o) Minimal Producer -- Any party whose Production in  
5 any Fiscal Year does not exceed five (5) acre feet.

6 (p) Natural Safe Yield -- The quantity of natural water  
7 supply which can be extracted annually from the Basin under  
8 conditions of long term average annual supply, net of the  
9 requirement to meet downstream rights as determined in the Long  
10 Beach Case (exclusive of Pumped export), and under cultural  
11 conditions as of a particular year.

12 (q) Operating Safe Yield -- The quantity of water  
13 which the Watermaster determines hereunder may be Pumped from  
14 the Basin in a particular Fiscal Year, free of the Replacement  
15 Water Assessment under the Physical Solution herein.

16 (r) Overdraft -- A condition wherein the total annual  
17 Production from the Basin exceeds the Natural Safe Yield  
18 thereof.

19 (s) Overlying Rights -- (Prior Judgment Section  
20 4 (r) [1]) The right to Produce water from the Basin for use  
21 on Overlying Lands, which rights are exercisable only on  
22 specifically defined Overlying Lands and which cannot be  
23 separately conveyed or transferred apart therefrom.

24 (t) Physical Solution -- (Prior Judgment Section 4  
25 (s)) The Court decreed method of managing the waters of the  
26 Basin so as to achieve the maximum utilization of the Basin and  
27 its water supply, consistent with the rights herein declared.

28 (u) Prescriptive Pumping Right -- (Prior Judgment

1 Section 4 (t)) The highest continuous extractions of water by  
2 a Pumper from the Basin for beneficial use in any five (5)  
3 consecutive years after commencement of Overdraft and prior to  
4 filing of this action, as to which there has been no cessation  
5 of use by that Pumper during any subsequent period of five (5)  
6 consecutive years, prior to the said filing of this action.

7 (v) Produce or Producing -- (Prior Judgment Section 4  
8 (u)) To Pump or Divert water.

9 (w) Producer -- (Prior Judgment Section 4 (v)) A  
10 party who Produces water.

11 (x) Production -- (Prior Judgment Section 4 (w)) The  
12 annual quantity of water Produced, stated in acre feet.

13 (y) Pump or Pumping -- (Prior Judgment Section 4  
14 (x)) To extract Ground Water from the Basin by Pumping or any  
15 other method.

16 (z) Pumper -- (Prior Judgment Section 4 (y)) Any  
17 party who Pumps water.

18 (aa) Pumper's Share -- (Prior Judgment Section 4 (z))  
19 A Pumper's right to a percentage of the entire Natural Safe  
20 Yield, Operating Safe Yield and appurtenant Ground Water  
21 storage.

22 (bb) Relevant Watershed -- (Prior Judgment Section  
23 4(aa)) That portion of the San Gabriel River watershed  
24 tributary to Whittier Narrows which is shown as such on Exhibit  
25 "A", and the exterior boundaries of which are described in  
26 Exhibit "B".

27 (cc) Replacement Water -- (Prior Judgment Section 4  
28 (bb)) Water purchased by Watermaster to replace:

1 (1) Production in excess of a Pumper's Share of Operating Safe  
2 Yield; (2) The consumptive use portion resulting from the  
3 exercise of an Overlying Right; and (3) Production in excess of  
4 a Diverter's right to Divert for Direct Use.

5 (dd) Responsible Agency -- (Prior Judgment Section 4  
6 (cc)) The municipal water district which is the normal and  
7 appropriate source from whom Watermaster shall purchase  
8 Supplemental Water for replacement purposes under the Physical  
9 Solution, being one of the following:

10 (1) Upper District -- Upper San Gabriel  
11 Valley Municipal Water District, a member public agency of  
12 The Metropolitan Water District of Southern California  
13 (MWD).

14 (2) San Gabriel District -- San Gabriel Valley  
15 Municipal Water District, which has a direct contract with  
16 the State of California for State Project Water.

17 (3) Three Valleys District -- Three Valleys  
18 Municipal Water District, formerly, "Pomona Valley  
19 Municipal Water District", a member public agency of MWD.

20 (ee) Stored Water -- (Prior Judgment Section 4 (dd))  
21 Supplemental Water stored in the Basin pursuant to a contract  
22 with Watermaster as authorized by Section 34(m).

23 (ff) Supplemental Water -- (Prior Judgment Section 4  
24 (ee)) Nontributary water imported through a Responsible Agency.

25 (gg) Transporting Parties -- (Prior Judgment Section 4  
26 (ff)) Any party presently transporting water (i.e., during the  
27 12 months immediately preceding the making of the findings  
28 herein) from the Relevant Watershed or Basin to an area outside

1       thereof, and any party presently or hereafter having an interest  
2       in lands or having a service area outside the Basin or Relevant  
3       Watershed contiguous to lands in which it has an interest or a  
4       service area within the Basin or Relevant Watershed. Division  
5       by a road, highway, or easement shall not interrupt contiguity.  
6       Said term shall also include the City of Sierra Madre, or any  
7       party supplying water thereto, so long as the corporate limits  
8       of said City are included within one of the Responsible Agencies  
9       and if said City, in order to supply water to its corporate area  
10      from the Basin, becomes a party to this action bound by this  
11      Judgment.

12               (hh) Water Level -- (Prior Judgment Section 4 (gg))  
13      The measured Elevation of water in the Key Well, corrected for  
14      any temporary effects of mounding caused by replenishment or  
15      local depressions caused by Pumping.

16               (ii) Year -- (Prior Judgment Section 4 (hh)) A  
17      calendar year, unless the context clearly indicates a contrary  
18      meaning.

19               11. Exhibits. (Prior Judgment Section 5) The following  
20      exhibits are attached to this Judgment and incorporated herein  
21      by this reference:

22               Exhibit "A" -- Map entitled "San Gabriel River  
23      Watershed Tributary to Whittier Narrows", showing the  
24      boundaries and relevant geologic and hydrologic features in  
25      the portion of the watershed of the San Gabriel River lying  
26      upstream from Whittier Narrows.

27               Exhibit "B" -- Boundaries of Relevant Watershed.

28               Exhibit "C" -- Table Showing Base Annual Diversion

1 Rights of Certain Diverters.

2 Exhibit "D" -- Table Showing Prescriptive Pumping  
3 Rights and Pumper's Share of Each Pumper.

4 Exhibit "E" -- Table Showing Production Rights of Each  
5 Integrated Producer.

6 Exhibit "F" -- Table Showing Special Category Rights.

7 Exhibit "G" -- Table Showing Non-consumptive Users.

8 Exhibit "H" -- Watermaster Operating Criteria.

9 Exhibit "J" -- Puente Narrows Agreement.

10 Exhibit "K" -- Overlying Rights, Nature of Overlying  
11 Right, Description of Overlying Lands to which Overlying  
12 Rights are Appurtenant, Producers Entitled to Exercise  
13 Overlying Rights and their Respective Consumptive Use  
14 Portions, and Map of Overlying Lands.

15 Exhibit "L" -- (New) List of Producers And Their  
16 Designees, as of June 1988.

17 Exhibit "M" -- (New) Watermaster Members, Officers  
18 and Staff, Including Calendar Year 1989.

19 II. DECREE

20 NOW, THEREFORE, IT IS HEREBY DECLARED, ORDERED, ADJUDGED  
21 AND DECREED:

22 A. DECLARATION OF HYDROLOGIC CONDITIONS

23 12. Basin as Common Source of Supply. (Prior Judgment  
24 Section 6) The area shown on Exhibit "A" as Main San Gabriel  
25 Basin overlies a Ground Water basin. The Relevant Watershed is  
26 the watershed area within which rights are herein adjudicated.  
27 The waters of the Basin and Relevant Watershed constitute a  
28 common source of natural water supply to the parties herein.

1           13. Determination of Natural Safe Yield. (Prior Judgment  
2 Section 7) The Natural Safe Yield of the Main San Gabriel Basin  
3 is found and declared to be one hundred fifty-two thousand  
4 seven-hundred (152,700) acre feet under Calendar Year 1967  
5 cultural conditions.

6           14. Existence of Overdraft. (Prior Judgment Section 8)  
7 In each and every Calendar Year commencing with 1953, the Basin  
8 has been and is in Overdraft.

9                                   B. DECLARATION OF RIGHTS

10           15. Prescription. (Prior Judgment Section 9) The use of  
11 water by each and all parties and their predecessors in interest  
12 has been open, notorious, hostile, adverse, under claim of  
13 right, and with notice of said overdraft continuously from  
14 January 1, 1953 to January 4, 1973. The rights of each party  
15 herein declared are prescriptive in nature. The following  
16 aggregate consequences of said prescription within the Basin and  
17 Relevant Watershed are hereby declared:

18                   (a) Prior Prescription. Diversions within the  
19 Relevant Watershed have created rights for direct  
20 consumptive use within the Basin, as declared and  
21 determined in Sections 16 and 18 hereof, which are of  
22 equal priority inter se, but which are prior and paramount  
23 to Pumping Rights in the Basin.

24                   (b) Mutual Prescription. The aggregate Prescriptive  
25 Pumping Rights of the parties who are Pumpers now exceed,  
26 and for many years prior to filing of this action, have  
27 exceeded, the Natural Safe Yield of the Basin. By reason  
28 of said condition, all rights of said Pumpers are declared

1 to be mutually prescriptive and of equal priority, inter  
2 se.

3 (c) Common Ownership of Safe Yield and Incidents  
4 Thereof. By reason of said Overdraft and mutual Pre-  
5 scription, the entire Natural Safe Yield of the Basin, the  
6 Operating Safe Yield thereof and the appurtenant rights to  
7 Ground Water storage capacity of the Basin are owned by  
8 Pumpers in undivided Pumpers' Shares as hereinafter  
9 individually declared, subject to the control of  
10 Watermaster, pursuant to the Physical Solution herein  
11 decreed. Nothing herein shall be deemed in derogation of  
12 the rights to spread water pursuant to rights set forth in  
13 Exhibit "G".

14 16. Surface Rights. (Prior Judgment Section 10) Certain  
15 of the aforesaid prior and paramount prescriptive water rights  
16 of Diverters to Divert for Direct Use stream flow within the  
17 Relevant Watershed are hereby declared and found in terms of  
18 Base Annual Diversion Right as set forth in Exhibit "C". Each  
19 Diverter shown on Exhibit "C" shall be entitled to Divert for  
20 Direct Use up to two hundred percent (200%) of said Base Annual  
21 Diversion Right in any one (1) Fiscal Year; provided that the  
22 aggregate quantities of water Diverted in any consecutive ten  
23 (10) Fiscal Year period shall not exceed ten (10) times such  
24 Diverter's Base Annual Diversion Right.

25 17. Ground Water Rights. (Prior Judgment Section 11) The  
26 Prescriptive Pumping Right of each Pumper, who is not an  
27 Integrated Producer, and his Pumper's Share are declared as set  
28 forth in Exhibit "D".

1           18. Optional Integrated Production Rights. (Prior  
2 Judgment Section 12) Those parties listed on Exhibit "E" have  
3 elected to be treated as Integrated Producers. Integrated  
4 Production Rights have two (2) historical components:

5                   (1) a fixed component based upon historic  
6 Diversions for Direct Use; and

7                   (2) a mutually prescriptive Pumper's Share  
8 component based upon Pumping during the period 1953 through  
9 1967.

10 Assessment and other Watermaster regulation of the rights of  
11 such parties shall relate to and be based upon each such  
12 component. So far as future exercise of such rights is  
13 concerned, however, the gross quantity of the aggregate right in  
14 any Fiscal Year may be exercised, in the sole discretion of such  
15 party, by either Diversion or Pumping or any combination or  
16 apportionment thereof; provided, that for Assessment purposes  
17 the first water Produced in any Fiscal Year (other than "carry-  
18 over", under Section 49 hereof) shall be deemed an exercise of  
19 the Diversion component, and any Production over said quantity  
20 shall be deemed Pumped water, regardless of the actual method of  
21 Production.

22           19. Special Category Rights. (Prior Judgment Section 13)  
23 The parties listed on Exhibit "F" have water rights in the  
24 Relevant Watershed which are not ordinary Production rights.  
25 The nature of each such right is as described in Exhibit "F".

26           20. Non-consumptive Practices. (Prior Judgment Section  
27 14) Certain Producers have engaged in Water Diversion and  
28 spreading practices which have caused such Diversions to have a

1 non-consumptive or beneficial impact upon the aggregate water  
2 supply available in the Basin. Said parties, and a statement of  
3 the nature of their rights, uses and practices, are set forth in  
4 Exhibit "G". The Physical Solution decreed herein, and  
5 particularly its provisions for Assessments, shall not apply to  
6 such non-consumptive uses. Watermaster may require reports on  
7 the operations of said parties.

8 21. Overlying Rights. (Prior Judgment Section 14.5)

9 Producers listed in Exhibit "K" hereto were not parties herein  
10 at the time of the original entry of Judgment herein. They have  
11 exercised in good faith Overlying Rights to Produce water from  
12 the Basin during the periods subsequent to the entry of Judgment  
13 herein and have by self-help initiated or maintained appurtenant  
14 Overlying Rights. Such rights are exercisable without  
15 quantitative limit only on specifically described Overlying Land  
16 and cannot be separately conveyed or transferred apart  
17 therefrom. As to such rights and their exercise, the owners  
18 thereof shall become parties to this action and be subject to  
19 Watermaster Replacement Water Assessments under Section 45 (b)  
20 hereof, sufficient to purchase Replenishment Water to offset the  
21 net consumptive use of such Production and practices. In  
22 addition, the gross amount of such Production for such overlying  
23 use shall be subject to Watermaster Administrative Assessments  
24 under Section 45 (a) hereof and the consumptive use portion of  
25 such Production for overlying use shall be subject to  
26 Watermaster's In-Lieu Water Cost Assessments under Section  
27 45 (d) hereof. The Producers presently entitled to exercise  
28 Overlying Rights, a description of the Overlying Land to which

1 Overlying Rights are appurtenant, the nature of use and the  
2 consumptive use portion thereof are set forth in Exhibit "K"  
3 hereto. Watermaster may require reports and make inspections of  
4 the operations of said parties for purposes of verifying the  
5 uses set forth in said Exhibit "K", and, in the event of a  
6 material change, to redetermine the net amount of consumptive  
7 use by such parties as changed in the exercise of such Overlying  
8 Rights. Annually, during the first two (2) weeks of June in  
9 each Calendar Year, such Overlying Rights Producers shall submit  
10 to Watermaster a verified statement as to the nature of the then  
11 current uses of said Overlying Rights on said Overlying Lands  
12 for the next ensuing Fiscal Year, whereupon Watermaster shall  
13 either affirm the prior determination or redetermine the net  
14 amount of the consumptive use portion of the exercise of such  
15 Overlying Right by said Overlying Rights Producer.

16 C. INJUNCTION

17 22. Injunction Against Unauthorized Production. (Prior  
18 Judgment Section 15) Effective July 1, 1973, each and every  
19 party, its officers, agents, employees, successors and assigns,  
20 to whom rights to waters of the Basin or Relevant Watershed have  
21 been declared and decreed herein is ENJOINED AND RESTRAINED from  
22 Producing water for Direct Use from the Basin or the Relevant  
23 Watershed except pursuant to rights and Pumpers' Shares herein  
24 decreed or which may hereafter be acquired by transfer pursuant  
25 to Section 55, or under the provisions of the Physical Solution  
26 in this Judgment and the Court's continuing jurisdiction,  
27 provided that no party is enjoined from Producing up to five (5)  
28 acre feet per Fiscal Year.

1           23. Injunction re Non-consumptive Uses. (Prior Judgment  
2 Section 16) Each party listed in Exhibit "G", its officers,  
3 agents, employees, successors and assigns, is ENJOINED AND  
4 RESTRAINED from materially changing said non-consumptive method  
5 of use.

6           24. Injunction Re Change in Overlying Use Without Notice  
7 Thereof To Watermaster. (Prior Judgment Section 16.5) Each  
8 party listed in Exhibit "K", its officers, agents, employees,  
9 successors and assigns, is ENJOINED AND RESTRAINED from  
10 materially changing said overlying uses at any time without  
11 first notifying Watermaster of the intended change of use, in  
12 which event Watermaster shall promptly redetermine the  
13 consumptive use portion thereof to be effective after such  
14 change.

15           25. Injunction Against Unauthorized Recharge. (Prior  
16 Judgment Section 17) Each party, its officers, agents,  
17 employees, successors and assigns, is ENJOINED AND RESTRAINED  
18 from spreading, injecting or otherwise recharging water in the  
19 Basin except pursuant to: (a) an adjudicated non-consumptive  
20 use, or (b) consent and approval of or Cyclic Storage Agreement  
21 with Watermaster, or (c) subsequent order of this Court.

22           26. Injunction Against Transportation From Basin or  
23 Relevant Watershed. (Prior Judgment Section 18) Except upon  
24 further order of Court, all parties, other than Transporting  
25 Parties and MWD in its exercise of its Special Category Rights,  
26 to the extent authorized therein, are ENJOINED AND RESTRAINED  
27 from transporting water hereafter Produced from the Relevant  
28 Watershed or Basin outside the areas thereof. For purposes of

1 this Section, water supplied through a city water system which  
2 lies chiefly within the Basin shall be deemed entirely used  
3 within the Basin. Transporting Parties are entitled to continue  
4 to transport water to the extent that any Production of water by  
5 any such party does not violate the injunctive provisions  
6 contained in Section 22 hereof; provided that said water shall  
7 be used within the present service areas or corporate or other  
8 boundaries and additions thereto so long as such additions are  
9 contiguous to the then existing service area or corporate or  
10 other boundaries; except that a maximum of ten percent (10%) of  
11 use in any Fiscal Year may be outside said then existing service  
12 areas or corporate or other boundaries.

13 D. CONTINUING JURISDICTION

14 27. Jurisdiction Reserved. (Prior Judgment Section 19)  
15 Full jurisdiction, power and authority are retained by and  
16 reserved to the Court for purposes of enabling the Court upon  
17 application of any party or of the Watermaster, by motion and  
18 upon at least thirty (30) days notice thereof, and after hearing  
19 thereon, to make such further or supplemental orders or  
20 directions as may be necessary or appropriate for interim  
21 operation before the Physical Solution is fully operative, or  
22 for interpretation, enforcement or carrying out of this  
23 Judgment, and to modify, amend or amplify any of the provisions  
24 of this Judgment or to add to the provisions thereof consistent  
25 with the rights herein decreed. Provided, that nothing in this  
26 paragraph shall authorize:

27 (1) modification or amendment of the quantities  
28 specified in the declared rights of any party;

1 (2) modification or amendment of the manner of  
2 exercise of the Base Annual Diversion Right or Integrated  
3 Production Right of any party; or

4 (3) the imposition of an injunction prohibiting  
5 transportation outside the Relevant Watershed or Basin as  
6 against any Transporting Party transporting in accordance  
7 with the provisions of this Judgment or against NWD as to  
8 its Special Category Rights.

9 E. WATERMASTER

10 28. Watermaster to Administer Judgment. (Prior Judgment  
11 Section 20) A Watermaster comprised of nine (9) persons, to be  
12 nominated as hereinafter provided and appointed by the Court,  
13 shall administer and enforce the provisions of this Judgment and  
14 any subsequent instructions or orders of the Court thereunder.

15 29. Qualification, Nomination and Appointment. (Prior  
16 Judgment Section 21) The nine (9) member Watermaster shall be  
17 composed of six (6) Producer representatives and three (3)  
18 public representatives qualified, nominated and appointed as  
19 follows:

20 (a) Qualification. Any adult citizen of the State of  
21 California shall be eligible to serve on Watermaster;  
22 provided, however, that no officer, director, employee or  
23 agent of Upper District or San Gabriel District shall be  
24 qualified as a Producer member of Watermaster.

25 (b) Nomination of Producer Representatives. A  
26 meeting of all parties shall be held at the regular meeting  
27 of Watermaster in November of each year, at the offices of  
28 Watermaster. Nomination of the six (6) Producer

1 representatives shall be by cumulative voting, in person or  
2 by proxy, with each Producer entitled to one (1) vote for  
3 each one hundred (100) acre feet, or portion thereof, of  
4 Base Annual Diversion Right or Prescriptive Pumping Right  
5 or Integrated Production Right.

6 (c) Nomination of Public Representatives. On or  
7 before the regular meeting of Watermaster in November of  
8 each year, the three (3) public representatives shall be  
9 nominated by the boards of directors of Upper District  
10 (which shall select two [2]) and San Gabriel District  
11 (which shall select one [1]). Said nominees shall be  
12 members of the board of directors of said public districts.

13 (d) Appointment. All Watermaster nominations shall be  
14 promptly certified to the Court, which will in ordinary  
15 course confirm the same by an appropriate order appointing  
16 said Watermaster; provided, however, that the Court at all  
17 times reserves the right and power to refuse to appoint, or  
18 to remove, any member of Watermaster.

19 30. Term and Vacancies. (Prior Judgment Section 22) Each  
20 member of Watermaster shall serve for a one (1) year term  
21 commencing on January 1, following his appointment, or until his  
22 successor is appointed. In the event of a vacancy on  
23 Watermaster, a successor shall be nominated at a special meeting  
24 to be called by Watermaster within ninety (90) days (in the case  
25 of a Producer representative) or by action of the appropriate  
26 district board of directors (in the case of a public  
27 representative).

28 31. Quorum. (Prior Judgment Section 23) Five (5) members

1 of the Watermaster shall constitute a quorum for the transaction  
2 of affairs of the Watermaster. Action by the affirmative vote  
3 of five (5) members shall constitute action by Watermaster,  
4 except that the affirmative vote of six (6) members shall be  
5 required:

6 (a) to approve the purchase, spreading or injection of  
7 water for Ground Water recharge, or

8 (b) to enter in any Agreement pursuant to Section  
9 34 (m) hereof.

10 32. Compensation. (Prior Judgment Section 24) Each  
11 Watermaster member shall receive compensation of One Hundred  
12 Dollars (\$100.00) per day for each day's attendance at meetings  
13 of Watermaster or for each day's service rendered as a  
14 Watermaster member at the request of Watermaster, together with  
15 any expenses incurred in the performance of his duties required  
16 or authorized by Watermaster. No member of the Watermaster  
17 shall be employed by or compensated for professional services  
18 rendered by him to Watermaster, other than the compensation  
19 herein provided, and any authorized travel or related expense.

20 33. Organization. (Prior Judgment Section 25) At its  
21 first meeting in each year, Watermaster shall elect a chairman  
22 and a vice chairman from its membership. It shall also select a  
23 secretary, a treasurer and such assistant secretaries and  
24 assistant treasurers as may be appropriate, any of whom may, but  
25 need not be, members of Watermaster.

26 (a) Minutes. Minutes of all Watermaster meetings  
27 shall be kept which shall reflect all actions taken by  
28 Watermaster. Draft copies thereof shall be furnished to

1 any party who files a request therefor in writing with  
2 Watermaster. Said draft copies of minutes shall constitute  
3 notice of any Watermaster action therein reported; failure  
4 to request copies thereof shall constitute waiver of  
5 notice.

6 (b) Regular Meetings. Watermaster shall hold regular  
7 meetings at places and times to be specified in  
8 Watermaster's rules and regulations to be adopted by  
9 Watermaster. Notice of the scheduled or regular meetings  
10 of Watermaster and of any changes in the time or place  
11 thereof shall be mailed to all parties who shall have filed  
12 a request therefor in writing with Watermaster.

13 (c) Special Meetings. Special meetings of  
14 Watermaster may be called at any time by the chairman or  
15 vice chairman or by any three (3) members of Watermaster by  
16 written notice delivered personally or mailed to each  
17 member of Watermaster and to each party requesting notice,  
18 at least twenty-four (24) hours before the time of each  
19 such meeting in the case of personal delivery, and forty-  
20 eight (48) hours prior to such meeting in the case of mail.  
21 The calling notice shall specify the time and place of the  
22 special meeting and the business to be transacted at such  
23 meeting. No other business shall be considered at such  
24 meeting.

25 (d) Adjournments. Any meeting of Watermaster may be  
26 adjourned to a time and place specified in the order of  
27 adjournment. Less than a quorum may so adjourn from time  
28 to time. A copy of the order or notice of adjournment

1 shall be conspicuously posted on or near the door of the  
2 place where the meeting was held within twenty-four (24)  
3 hours after adoption of the order of adjournment.

4 34. Powers and Duties. (Prior Judgment Section 26)

5 Subject to the continuing supervision and control of the Court,  
6 Watermaster shall have and may exercise the following express  
7 powers, and shall perform the following duties, together with  
8 any specific powers, authority and duties granted or imposed  
9 elsewhere in this Judgment or hereafter ordered or authorized by  
10 the Court in the exercise of its continuing jurisdiction.

11 (a) Rules and Regulations. To make and adopt any and  
12 all appropriate rules and regulations for conduct of  
13 Watermaster affairs. A copy of said rules and regulations  
14 and any amendments thereof shall be mailed to all parties.

15 (b) Acquisition of Facilities. To purchase, lease,  
16 acquire and hold all necessary property and equipment;  
17 provided, however, that Watermaster shall not acquire any  
18 interest in real property in excess of year-to-year tenancy  
19 for necessary quarters and facilities.

20 (c) Employment of Experts and Agents. To employ such  
21 administrative personnel, engineering, geologic,  
22 accounting, legal or other specialized services and  
23 consulting assistants as may be deemed appropriate in  
24 the carrying out of its powers and to require appropriate  
25 bonds from all officers and employees handling Watermaster  
26 funds.

27 (d) Measuring Devices, etc. To cause parties,  
28 pursuant to uniform rules, to install and maintain in good

1 operating condition, at the cost of each party, such  
2 necessary measuring devices or meters as may be  
3 appropriate; and to inspect and test any such measuring  
4 device as may be necessary.

5 (e) Assessments. To levy and collect all Assessments  
6 specified in the Physical Solution.

7 (f) Investment of Funds. To hold and invest any and  
8 all funds which Watermaster may possess in investments  
9 authorized from time to time for public agencies in the  
10 State of California.

11 (g) Borrowing. To borrow in anticipation of receipt  
12 of Assessment proceeds an amount not to exceed the annual  
13 amount of Assessments levied but uncollected.

14 (h) Purchase of and Recharge with Supplemental Water.  
15 To purchase Supplemental Water and to introduce the same  
16 into the Basin for replacement or cyclic storage purposes,  
17 subject to the affirmative vote of six (6) members of  
18 Watermaster.

19 (i) Contracts. To enter into contracts for the  
20 performance of any administrative powers herein granted,  
21 subject to approval of the Court.

22 (j) Cooperation With Existing Agencies. To act  
23 jointly or cooperate with agencies of the United States and  
24 the State of California or any political subdivision,  
25 municipality or district to the end that the purposes of  
26 the Physical Solution may be fully and economically carried  
27 out. Specifically, in the event Upper District has  
28 facilities available and adequate to accomplish any of the

1 administrative functions of Watermaster, consideration  
2 shall be given to performing said functions under contract  
3 with Upper District in order to avoid duplication of  
4 facilities.

5 (k) Assumption of Make-up Obligation. Watermaster  
6 shall assume the Make-up Obligation for and on behalf of  
7 the Basin.

8 (m) Water Quality. Water quality in the Basin shall  
9 be a concern of Watermaster, and all reasonable steps shall  
10 be taken to assist and encourage appropriate regulatory  
11 agencies to enforce reasonable water quality regulations  
12 affecting the Basin, including regulation of solid and  
13 liquid waste disposal.

14 (n) Cyclic Storage Agreements. To enter into  
15 appropriate contracts, to be approved by the Court, for  
16 utilization of Ground Water storage capacity of the Basin  
17 for cyclic or regulatory storage of Supplemental Water by  
18 parties and non-parties, for subsequent recovery or  
19 Watermaster credit by the storing entity, pursuant to  
20 uniform rules and conditions, which shall include provision  
21 for:

22 (1) Watermaster control of all spreading or  
23 injection and extraction scheduling and procedures for  
24 such stored water;

25 (2) calculation by Watermaster of any special  
26 costs, damages or burdens resulting from such  
27 operations;

28 (3) determination by Watermaster of, and

1 accounting for, all losses in stored water, assuming  
2 that such stored water floats on top of the Ground  
3 Water supplies, and accounting for all losses of water  
4 which otherwise would have replenished the Basin, with  
5 priorities being established as between two or more  
6 such contractors giving preference to parties over  
7 non-parties; and

8 (4) payment to Watermaster for the benefit of the  
9 parties hereto of all special costs, damages or  
10 burdens incurred (without any charge, rent, assessment  
11 or expense as to parties hereto by reason of the  
12 adjudicated proprietary character of said storage  
13 rights, nor credit or offset for benefits resulting  
14 from such storage); provided, that no party shall have  
15 any direct interest in or control over such contracts  
16 or the operation thereof by reason of the adjudicated  
17 right of such party, the Watermaster having sole  
18 custody and control of all Ground Water storage rights  
19 in the Basin pursuant to the Physical Solution herein,  
20 and subject to review of the Court.

21 (o) Notice List. Maintain a current list of party  
22 designees to receive notice hereunder, in accordance with  
23 Section 54 hereof.

24 35. Policy Decisions -- Procedure. (Prior Judgment  
25 Section 27) It is contemplated that Watermaster will exercise  
26 discretion in making policy decisions relating to Basin  
27 management under the Physical Solution decreed herein. In order  
28 to assure full participation and opportunity to be heard for

1 those affected, no policy decision shall be made by Watermaster  
2 until thirty (30) days after the question involved has been  
3 raised for discussion at a Watermaster meeting and noted in the  
4 draft of minutes thereof.

5 36. Reports. (Prior Judgment Section 28) Watermaster  
6 shall annually file with the Court and mail to the parties a  
7 report of all Watermaster activities during the preceding year,  
8 including an audited statement of all accounts and financial  
9 activities of Watermaster, summary reports of Diversions and  
10 Pumping, and all other pertinent information. To the extent  
11 practical, said report shall be mailed to all parties on or  
12 before November 1.

13 37. Review Procedures. (Prior Judgment Section 29)  
14 Any action, decision, rule or procedure of Watermaster (other  
15 than a decision establishing Operating Safe Yield, see Section  
16 43(c)) shall be subject to review by the Court on its own motion  
17 or on timely motion for an Order to Show Cause by any party, as  
18 follows:

19 (a) Effective Date of Watermaster Action. Any order,  
20 decision or action of Watermaster shall be deemed to have  
21 occurred on the date that written notice thereof is mailed.  
22 Mailing of draft copies of Watermaster minutes to the  
23 parties requesting the same shall constitute notice to all  
24 such parties.

25 (b) Notice of Motion. Any party may, by a regularly  
26 noticed motion, petition the Court for review of said  
27 Watermaster's action or decision. Notice of such motion  
28 shall be mailed to Watermaster and all parties. Unless so

1 ordered by the Court, such petition shall not operate to  
2 stay the effect of such Watermaster action.

3 (c) Time for Motion. Notice of motion to review any  
4 Watermaster action or decision shall be served and filed  
5 within ninety (90) days after such Watermaster action or  
6 decision.

7 (d) De Novo Nature of Proceeding. Upon filing of such  
8 motion for hearing, the Court shall notify the parties of a  
9 date for taking evidence and argument, and shall review de  
10 novo the question at issue on the date designated. The  
11 Watermaster decision or action shall have no evidentiary  
12 weight in such proceeding.

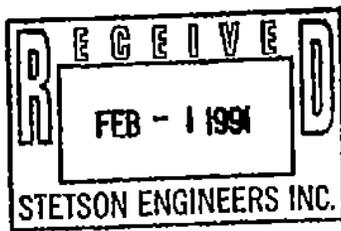
13 (e) Decision. The decision of the Court in such  
14 proceeding shall be an appealable Supplemental Order in  
15 this case. When the same is final, it shall be binding  
16 upon the Watermaster and the parties.

17 F. PHYSICAL SOLUTION

18 38. Purpose and Objective. (Prior Judgment Section 30)  
19 Consistent with the California Constitution and the decisions of  
20 the Supreme Court, the Court hereby adopts and Orders the  
21 parties to comply with this Physical Solution. The purpose and  
22 objective of these provisions is to provide a legal and  
23 practical means for accomplishing the most economic, long term,  
24 conjunctive utilization of surface, Ground Water, Supplemental  
25 Water and Ground Water storage capacity to meet the needs and  
26 requirements of the water users dependent upon the Basin and  
27 Relevant Watershed, while preserving existing equities.

28 39. Need for Flexibility. (Prior Judgment Section 31) Iu

1 Ralph B. Helm - Bar No. 022004  
4605 Lankershim Boulevard, #214  
2 North Hollywood, CA 91602  
3 Telephone (818) 769-2002  
4 Attorney for Watermaster - Petitioner



8 SUPERIOR COURT OF CALIFORNIA, COUNTY OF LOS ANGELES

10 UPPER SAN GABRIEL VALLEY ) No. 924129  
11 MUNICIPAL WATER DISTRICT, )  
12 Plaintiff, ) ORDER AMENDING JUDGMENT TO  
13 vs. ) EXPAND WATERMASTER'S POWERS  
14 CITY OF ALHAMBRA, et al., ) TO INCLUDE MAINTENANCE,  
15 Defendants. ) IMPROVEMENT, AND CONTROL OF  
16 ) BASIN WATER QUALITY WITH  
ALLOWABLE FUNDING THROUGH  
IN-LIEU ASSESSMENTS  
Hearing: August 7, 1990  
Department 38, 9:15 A. M.

17 The Petition of the Main San Gabriel Basin Watermaster  
18 (Watermaster) for Amendment to Judgment herein to expand its  
19 powers to include maintenance, improvement, and control of Basin  
20 water quality by controlling pumping in the Basin, with  
21 allowable funding for associated costs to be paid through its  
22 In-Lieu Assessments, was continued on July 31, 1990, to August  
23 7, 1990, when it duly and regularly came on for hearing, at 9:15  
24 o'clock A. M. in Department 38 of the above entitled Court, the  
25 Honorable FLORENCE T. PICKARD, Assigned Judge Presiding. Ralph  
26 B. Helm appeared as Attorney for Watermaster - Petitioner; Wayne  
27 K. Lemieux appeared for Defendant, San Gabriel Valley Municipal  
28 Water District, in support of the Petition; Fred Vendig, General

1 Counsel, Karen L. Tachiki, Assistant General Counsel, and  
2 Victor E. Gleason, Senior Deputy General Counsel, by Victor E.  
3 Gleason, appeared for Defendant, The Metropolitan Water District  
4 of Southern California, in support of the Petition; Timothy J.  
5 Ryan appeared for Defendant, San Gabriel Valley Water Company,  
6 in opposition to the Petition; Lagerlof, Senecal, Drescher &  
7 Swift, by H. Jess Senecal, appeared for Defendants, Calmat  
8 Company, Livingston-Graham, Owl Rock Products, AZ-Two, Inc., and  
9 Sully-Miller Contracting Company, in opposition to the Petition;  
10 Ira Reiner, Los Angeles County District Attorney, by Jan  
11 Chatten-Brown, Special Assistant to the District Attorney,  
12 appeared in opposition to the Petition; and Sarah F. Bates and  
13 Laurens H. Silver, by Sarah F. Bates, appeared on behalf of  
14 Amicus Curiae Sierra Club, in opposition to the Petition.

15 The Court acknowledged receipt and consideration of:  
16 letters in support of the Petition by the California Regional  
17 Water Quality Control Board - Los Angeles Region and by the  
18 State Water Resources Control Board; a copy of a letter  
19 addressed to the Attorney for Petitioner, from the US  
20 Environmental Protection Agency - Region IX, by Mark J.  
21 Klaiman, Assistant Regional Counsel, regarding several matters  
22 of federal law which EPA believed might ultimately affect the  
23 subject Petition; a letter in opposition to the Petition by East  
24 Valleys Organization; and a FAX communication to the Court, in  
25 opposition to the Petition, from Congressman Esteban E. Torres,  
26 which was not communicated to nor seen by the parties.

27 Members of the public, present in Court, were invited to,  
28 and did, present oral testimony during the hearing.

1 Under date of December 10, 1990 the Court entered its  
2 Intended Decision Re Amendment To Judgment and, by minute order  
3 duly entered and mailed to Counsel for Petitioner, ordered  
4 copies thereof mailed forthwith to all appearing parties,  
5 including those appearing as friends of the court, and to all  
6 other affected parties on the case's current mailing list.

7 A Proof Of Service by mail on December 13, 1990, Of  
8 Intended Decision Re Amendment To Judgment, as ordered, has been  
9 filed with the Court.

10 Opposition to Petitioner's Proposed Order were filed by  
11 Amicus Curiae Sierra Club, Amicus Curiae Los Angeles District  
12 Attorney, and by Producer Parties Calmat Co., Livingston-Graham,  
13 Owl Rock Products Company, AZ-Two, Inc., and Sully-Miller  
14 Contracting Company.

15 Proof being made to the satisfaction of the Court and good  
16 cause appearing:

17 IT IS, HEREBY, ORDERED:

18 1. That the Amended Judgment herein be further amended by  
19 amending Subsection (j) of Section 10 thereof, Definitions, and  
20 Section 40 thereof, Division F, Physical Solution, to read as  
21 follows:

22 "10 (j) In-Lieu Water Cost - - The differential between a  
23 particular Producer's cost of Watermaster directed produced,  
24 treated, blended, substituted, or Supplemental Water delivered  
25 or substituted to, for, or taken by, such Producer in-lieu of  
26 his cost of otherwise normally Producing a like amount of Ground  
27 Water from the Basin.

28 "40. Watermaster Control. (Prior Judgment Section 32)

1 In order to develop an adequate and effective program of Basin  
2 management, it is essential that Watermaster have broad  
3 discretion in the making of Basin management decisions within  
4 the ambit hereinafter set forth. The maintenance, improvement,  
5 and control of the water quality and quantity of the Basin,  
6 withdrawal and replenishment of supplies of the Basin and  
7 Relevant Watershed, and the utilization of the water resources  
8 thereof, must be subject to procedures established by  
9 Watermaster in implementation of the Physical Solution  
10 provisions of this Judgment. Both the quantity and quality of  
11 said water resource are thereby preserved and its beneficial  
12 utilization maximized.

13       "(a) Watermaster shall develop an adequate and effective  
14 program of Basin management. The maintenance, improvement, and  
15 control of the water quality and quantity of the Basin,  
16 withdrawal and replenishment of supplies of the Basin and  
17 Relevant Watershed, and the utilization of the water resources  
18 thereof, must be subject to procedures established by  
19 Watermaster in implementation of the Physical Solution  
20 provisions of this Judgment. All Watermaster programs and  
21 procedures shall be adopted only after a duly noticed public  
22 hearing pursuant to Sections 37 and 40 of the Amended Judgment  
23 herein.

24       "(b) Watermaster shall have the power to control pumping in  
25 the Basin by water Producers therein for Basin cleanup and water  
26 quality control so that specific well production can be directed  
27 as to a lesser amount, to total cessation, as to an increased  
28 amount, and even to require pumping in a new location in the

1 Basin. Watermaster's right to regulate pumping activities of  
2 Producers shall be subordinate to any conflicting Basin cleanup  
3 plan established by the EPA or other public governmental agency  
4 with responsibility for ground water management or clean up.

5 "(c) Watermaster may act individually or participate with  
6 others to carry on technical and other necessary investigations  
7 of all kinds and collect data necessary to carry out the herein  
8 stated purposes. It may engage in contractual relations with  
9 the EPA or other agencies in furtherance of the clean up of the  
10 Basin and enter into contracts with agencies of the United  
11 States, the State of California, or any political subdivision,  
12 municipality, or district thereof, to the extent allowed under  
13 applicable federal or state statutes. Any cooperative agreement  
14 between the Watermaster and EPA shall require the approval of  
15 the appropriate Agency(s) of the State of California.

16 "(d) For regulation and control of pumping activity in the  
17 Basin, Watermaster shall adopt Rules and Regulations and  
18 programs to promote, manage and accomplish clean up of the Basin  
19 and its waters, including, but not limited to, measures to  
20 confine, move, and remove contaminants and pollutants. Such  
21 Rules and Regulations and programs shall be adopted only after a  
22 duly Noticed Public Hearing by Watermaster and shall be subject  
23 to Court review pursuant to Section 37 of the Amended Judgment  
24 herein.

25 "(e) Watermaster shall determine whether funds from local,  
26 regional, state or federal agencies are available for regulating  
27 pumping and the various costs associated with, or arising from  
28 such activities. If no public funds are available from local,

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regional, state, or federal agencies, the costs shall be obtained and paid by way of an In-Lieu Assessment by Watermaster pursuant to Section 10 (j) of the Amended Judgment herein. Provided such In-Lieu Assessments become necessary, the costs shall be borne by all Basin Producers.

"(f) Watermaster is a Court empowered entity with limited powers, created pursuant to the Court's Physical Solution Jurisdiction under Article X, Section 2 of the California Constitution. None of the Powers granted herein to Watermaster shall be construed as designating Watermaster a political subdivision of the State of California or authorizing Watermaster to act as 'lead agency' to administer the federal Superfund for clean up of the Basin."

2. This Amended Judgment shall continue in full force and effect as hereby Ordered and Amended.

Dated: January 29, 1991.

/s/Florence T. Pickard  
FLORENCE T. PICKARD  
Judge of the Superior Court,  
Specially Assigned

1 order that Watermaster may be free to utilize both existing and  
2 new and developing technological, social and economic concepts  
3 for the fullest benefit of all those dependent upon the Basin,  
4 it is essential that the Physical Solution hereunder provide for  
5 maximum flexibility and adaptability. To that end, the Court  
6 has retained continuing jurisdiction to supplement the broad  
7 discretion herein granted to the Watermaster.

8 40. Watermaster Control. (Prior Judgment Section 32) In  
9 order to develop an adequate and effective program of Basin  
10 management, it is essential that Watermaster have broad  
11 discretion in the making of Basin management decisions within  
12 the ambit hereinafter set forth. Withdrawal and replenishment  
13 of supplies of the Basin and Relevant Watershed and the  
14 utilization of the water resources thereof, and of available  
15 Ground Water storage capacity, must be subject to procedures  
16 established by Watermaster in implementation of the provisions  
17 of this Judgment. Both the quantity and quality of said water  
18 resource are thereby preserved and its beneficial utilization  
19 maximized.

20 41. General Pattern of Contemplated Operation. (Prior  
21 Judgment Section 33) In general outline (subject to the  
22 specific provisions hereafter and to Watermaster Operating  
23 Criteria set forth in Exhibit "H"), Watermaster will determine  
24 annually the Operating Safe Yield of the Basin and will notify  
25 each Pumper of his share thereof, stated in acre feet per Fiscal  
26 Year. Thereafter, no party may Produce in any Fiscal Year an  
27 amount in excess of the sum of his Diversion Right, if any, plus  
28 his Pumper's Share of such Operating Safe Yield, or his

1 Integrated Production Right, or the terms of any Cyclic Storage  
2 Agreement, without being subject to Assessment for the purpose  
3 of purchasing Replacement Water. In establishing the Operating  
4 Safe Yield, Watermaster shall follow all physical, economic, and  
5 other relevant parameters provided in the Watermaster Operating  
6 Criteria. Watermaster shall have Assessment powers to raise  
7 funds essential to implement the management plan in any of the  
8 several special circumstances herein described in more detail.

9 42. Basin Operating Criteria. (Prior Judgment Section 34)  
10 Until further order of the Court and in accordance with the  
11 Watermaster Operating Criteria, Watermaster shall not spread  
12 Replacement Water when the water level at the Key Well exceeds  
13 Elevation two hundred fifty (250), and Watermaster shall spread  
14 Replacement Water, insofar as practicable, to maintain the water  
15 level at the Key Well above Elevation two hundred (200).

16 43. Determination of Operating Safe Yield. (Prior  
17 Judgment Section 35) Watermaster shall annually determine the  
18 Operating Safe Yield applicable to the succeeding Fiscal Year  
19 and estimate the same for the next succeeding four (4) Fiscal  
20 Years. In making such determination, Watermaster shall be  
21 governed in the exercise of its discretion by the Watermaster  
22 Operating Criteria. The procedures with reference to said  
23 determination shall be as follows:

24 (a) Preliminary Determination. On or before  
25 Watermaster's first meeting in April of each year,  
26 Watermaster shall make a Preliminary Determination of the  
27 Operating Safe Yield of the Basin for each of the  
28 succeeding five Fiscal Years. Said determination shall be

1 made in the form of a report containing a summary statement  
2 of the considerations, calculations and factors used by  
3 Watermaster in arriving at said Operating Safe Yield.

4 (b) Notice and Hearing. A copy of said Preliminary  
5 Determination and report shall be mailed to each Pumper and  
6 Integrated Producer at least ten (10) days prior to a  
7 hearing to be held at Watermaster's regular meeting in May,  
8 of each year, at which time objections or suggested  
9 corrections or modifications of said determinations shall  
10 be considered. Said hearing shall be held pursuant to  
11 procedures adopted by Watermaster.

12 (c) Watermaster Determination and Review Thereof.  
13 Within thirty (30) days after completion of said hearing,  
14 Watermaster shall mail to each Pumper and Integrated  
15 Producer a final report and determination of said Operating  
16 Safe Yield for each such Fiscal Year, together with a  
17 statement of the Producer's entitlement in each such Fiscal  
18 Year stated in acre feet. Any affected party, within  
19 thirty (30) days of mailing of notice of said Watermaster  
20 determination, may, by a regularly noticed motion, petition  
21 the Court for an Order to Show Cause for review of said  
22 Watermaster finding, and thereupon the Court shall hear  
23 such objections and settle such dispute. Unless so ordered  
24 by the Court, such petition shall not operate to stay the  
25 effect of said report and determination. In the absence of  
26 such review proceedings, the Watermaster determination  
27 shall be final.

28 44. Reports of Pumping and Diversion. (Prior Judgment

1 Section 36) Each party (other than Minimal Producers) shall  
2 file with the Watermaster quarterly, on or before the last day  
3 of January, April, July and October, a report on a form to be  
4 prescribed by Watermaster showing the total Pumping and  
5 Diversion (separately for Direct Use and for non-consumptive  
6 use, if any,) of such party during the preceding calendar  
7 quarter.

8 45. Assessments -- Purpose. (Prior Judgment Section 37)  
9 Watermaster shall have the power to levy and collect Assessments  
10 from the parties (other than Minimal Producers, non-consumptive  
11 users, or Production under Special Category Rights or Cyclic  
12 Storage Agreements) based upon Production during the preceding  
13 Fiscal Year. Said Assessments may be for one or more of the  
14 following purposes:

15 (a) Watermaster Administration Costs. Within thirty  
16 (30) days after completion of the hearing on the  
17 Preliminary Determination of the Operating Safe Yield of  
18 the Basin and Watermaster's determination thereof, pursuant  
19 to Section 43 hereof, Watermaster shall adopt a proposed  
20 budget for the succeeding Fiscal Year and shall mail a copy  
21 thereof to each party, together with a statement of the  
22 level of Administration Assessment levied by Watermaster  
23 which will be collected for purposes of raising funds for  
24 said budget. Said Assessment shall be uniformly applicable  
25 to each acre foot of Production.

26 (b) Replacement Water Costs. Replacement Water  
27 Assessments shall be collected from each party on account  
28 of such party's Production in excess of its Diversion

1 Rights, Pumper's Share or Integrated Production Right, and  
2 on account of the consumptive use portion of Overlying  
3 Rights, computed at the applicable rate established by  
4 Watermaster consistent with the Watermaster Operating  
5 Criteria.

6 (c) Make-Up Obligation. An Assessment shall be  
7 collected equally on account of each acre foot of  
8 Production, which does not bear a Replacement Assessment  
9 hereunder, to pay all necessary costs of Administration and  
10 satisfaction of the Make-Up Obligation. Such Assessment  
11 shall not be applicable to water Production for an  
12 Overlying Right.

13 (d) In-Lieu Water Cost. Watermaster may levy an  
14 Assessment against all Pumping to pay reimbursement for In-  
15 Lieu Water Costs except that such Assessment shall not be  
16 applicable to the non-consumptive use portion of an  
17 Overlying Right.

18 (e) Basin Water Quality Improvement. For purposes of  
19 testing, protecting or improving the water quality in the  
20 Basin, Watermaster may, after a noticed hearing thereon,  
21 fix terms and conditions under which it may waive all or  
22 any part of its Assessments on such ground water  
23 Production and if such Production, in addition to his other  
24 Production, does not exceed such Producer's Share or  
25 entitlement for that Fiscal Year, such stated Production  
26 shall be allowed to be carried over for a part of such  
27 Producer's next Fiscal Year's Producer's Share or  
28 entitlement. In connection therewith, Watermaster may also

1 waive the provisions of Sections 25, 26 and 57 hereof,  
2 relating to Injunction Against Unauthorized Recharge,  
3 Injunction Against Transportation From Basin or Relevant  
4 Watershed, and Intervention After Judgment, respectively.  
5 Nothing in this Judgment is intended to allow an increase  
6 in any Producer's annual entitlement nor to prevent  
7 Watermaster, after hearing thereon, from entering into  
8 contracts to encourage, assist and accomplish the clean up  
9 and improvement of degraded water quality in the Basin by  
10 non-parties herein. Such contracts may include the  
11 exemption of the Production of such Basin water therefor  
12 from Watermaster Assessments and, in connection therewith,  
13 the waiver of the provisions of Judgment Sections 25, 26,  
14 and 57 hereof.

15 46. Assessments -- Procedure. (Prior Judgment Section 38)

16 Assessments herein provided for shall be levied and collected  
17 as follows:

18 (a) Levy and Notice of Assessment. Within thirty  
19 (30) days of Watermaster's annual determination of  
20 Operating Safe Yield of the Basin for each Fiscal Year and  
21 succeeding four (4) Fiscal Years, Watermaster shall levy  
22 applicable Administration Assessments, Replacement Water  
23 Assessments, Make-up Water Assessments and In-Lieu Water  
24 Assessments, if any. Watermaster shall give written notice  
25 of all applicable Assessments to each party on or before  
26 August 15, of each year.

27 (b) Payment. Each Assessment shall be payable, and  
28 each party is Ordered to pay the same, on or before

1 September 20, following such Assessment, subject to the  
2 rights reserved in Section 37 hereof.

3 (c) Delinquency. Any Assessment which becomes  
4 delinquent after January 1, 1980, shall bear interest at  
5 the annual prime rate plus one percent (1%) in effect on  
6 the first business day of August of each year. Said prime  
7 interest rate shall be that fixed by the Bank of America  
8 NT&SA for its preferred borrowing customers on said date.  
9 Said prime interest rate plus one percent (1%) shall be  
10 applicable to any said delinquent Assessment from the due  
11 date thereof until paid. Provided, however, in no event  
12 shall any said delinquent Assessment bear interest at a  
13 rate of less than ten percent (10%) per annum. Such  
14 delinquent Assessment and interest may be collected in a  
15 Show Cause proceeding herein or any other legal proceeding  
16 instituted by Watermaster, and in such proceeding the Court  
17 may allow Watermaster its reasonable costs of collection,  
18 including attorney's fees.

19 47. Availability of Supplemental Water From Responsible  
20 Agencies. (Prior Judgment Section 39) If any Responsible  
21 Agency shall, for any reason, be unable to deliver Supplemental  
22 Water to Watermaster when needed, Watermaster shall collect  
23 funds at an appropriate level and hold them in trust, together  
24 with interest accrued thereon, for purchase of such water when  
25 available.

26 48. Accumulation of Replacement Water Assessment Proceeds.  
27 (Prior Judgment Section 40) In order to minimize fluctuation  
28 in Assessments and to give Watermaster flexibility in Basin

1 management, Watermaster may make reasonable accumulations of  
2 Replacement Water Assessments. Such moneys and any interest  
3 accrued thereon shall only be used for the purchase of  
4 Replacement Water.

5 49. Carry-over of Unused Rights. (Prior Judgment Section  
6 41) Any Pumper's Share of Operating Safe Yield, and the  
7 Production right of any Integrated Producer, which is not  
8 Produced in a given Fiscal Year may be carried over and  
9 accumulated for one Fiscal Year, pursuant to reasonable rules  
10 and procedures for notice and accounting which shall be adopted  
11 by Watermaster. The first water Produced in the succeeding  
12 Fiscal Year shall be deemed Produced pursuant to such Carry-over  
13 Rights.

14 50. Minimal Producers. (Prior Judgment Section 42) In  
15 the interest of Justice, Minimal Producers are exempted from the  
16 operation of this Physical Solution, so long as such party's  
17 annual Production does not exceed five (5) acre feet. Quarterly  
18 Production reports by such parties shall not be required, but  
19 Watermaster may require, and Minimal Producers shall furnish,  
20 specific periodic reports. In addition, Watermaster may conduct  
21 such investigation of future operations of any Minimal Producer  
22 as may be appropriate.

23 51. Effective Date. (Prior Judgment Section 43) The  
24 effective date for commencing accounting and operation under  
25 this Physical Solution, other than for Replacement Water  
26 Assessments, shall be July 1, 1972. The first Assessment for  
27 Replacement Water shall be payable on September 20, 1974, on  
28 account of Fiscal Year 1973-74 Production.

1 G. MISCELLANEOUS PROVISIONS

2 52. Puente Narrows Flow. (Prior Judgment Section 44)

3 The Puente Basin is tributary to the Main San Gabriel Basin.  
4 All Producers within said Puente Basin have been dismissed  
5 herein, based upon the Puente Narrows Agreement (Exhibit "J"),  
6 whereby Puente Basin Water Agency agreed not to interfere with  
7 surface inflow and to assure continuance of historic subsurface  
8 contribution of water to Main San Gabriel Basin. The Court  
9 declares said Agreement to be reasonable and fair and in full  
10 satisfaction of claims by Main San Gabriel Basin for natural  
11 water from Puente Basin.

12 53. San Gabriel District - Interim Order. (Prior Judgment  
13 Section 45) San Gabriel District has a contract with the State  
14 of California for State Project Water, delivered at Devil Canyon  
15 in San Bernardino County. San Gabriel District is HEREBY  
16 ORDERED to proceed with and complete necessary pipeline  
17 facilities as soon as practical.

18 Until said pipeline is built and capable of delivering a  
19 minimum of twenty-eight thousand eight-hundred (28,800) acre  
20 feet of State Project water per year, defendant cities of  
21 Alhambra, Azusa, and Monterey Park shall pay to Watermaster each  
22 Fiscal Year a Replacement Assessment at a uniform rate  
23 sufficient to purchase Replenishment Water when available,  
24 which rate shall be declared by San Gabriel District.

25 When water is available through said pipeline, San Gabriel  
26 District shall make the same available to Watermaster, on his  
27 reasonable demand, at said specified rate per acre foot.

28 Interest accrued on such funds shall be paid to San Gabriel

1 District.

2 54. Service Upon and Delivery to Parties of Various  
3 Papers. (Prior Judgment Section 46) Service of the Judgment  
4 on those parties who have executed the Stipulation for Judgment  
5 shall be made by first class mail, postage prepaid, addressed to  
6 the Designee and at the address designated for that purpose in  
7 the executed and filed counterpart of the Stipulation for  
8 Judgment, or in any substitute designation filed with the Court.

9 Each party who has not heretofore made such a designation  
10 shall, within thirty (30) days after the Judgment shall have  
11 been served upon that party, file with the Court, with proof of  
12 service of a copy thereof upon Watermaster, a written  
13 designation of the person to whom and the address at which all  
14 future notices, determinations, requests, demands, objections,  
15 reports and other papers and processes to be served upon that  
16 party or delivered to that party are to be so served or  
17 delivered.

18 A later substitute designation filed and served in the same  
19 manner by any party shall be effective from the date of filing  
20 as to the then future notices, determinations, requests,  
21 demands, objections, reports and other papers and processes to  
22 be served upon or delivered to that party.

23 Delivery to or service upon any party by Watermaster, by  
24 any other party, or by the Court, of any item required to be  
25 served upon or delivered to a party under or pursuant to the  
26 Judgment may be made by deposit thereof (or by copy thereof) in  
27 the mail, first class, postage prepaid, addressed to the  
28 Designee of the party and at the address shown in the latest

1 designation filed by that party.

2 55. Assignment, Transfer, etc., of Rights. (Prior  
3 Judgment Section 47) Any rights Adjudicated herein except  
4 Overlying Rights, may be assigned, transferred, licensed or  
5 leased by the owners thereof; provided however, that no such  
6 assignment shall be complete until the appropriate notice  
7 procedures established by Watermaster have been complied with.  
8 No water Produced pursuant to rights assigned, transferred,  
9 licensed, or leased may be transported outside the Relevant  
10 Watershed except by:

11 (1) a Transporting Party, or

12 (2) a successor in interest immediate or mediate to a  
13 water system on lands or portion thereof, theretofore  
14 served by such a Transporting Party, for use by such  
15 successor in accordance with limitations applicable to  
16 Transporting Parties, or

17 (3) a successor in interest to the Special Category  
18 rights of MWD.

19 The transfer and use of Overlying Rights shall be  
20 limited, as provided in Section 21 hereof, as exercisable  
21 only on the specifically defined Overlying Lands and they  
22 cannot be separately conveyed or transferred apart therefrom.

23 56. Abandonment of Rights. (Prior Judgment Section 48)  
24 It is in the interest of reasonable beneficial use of the Basin  
25 and its water supply that no party be encouraged to take and use  
26 more water in any Fiscal Year than is actually required.  
27 Failure to Produce all of the water to which a party is entitled  
28 hereunder shall not, in and of itself, be deemed or constitute

1 an abandonment of such party's right, in whole or in part.  
2 Abandonment and extinction of any right herein Adjudicated shall  
3 be accomplished only by:

4 (1) a written election by the party, filed in this  
5 case, or

6 (2) upon noticed motion of Watermaster, and after  
7 hearing.

8 In either case, such abandonment shall be confirmed by  
9 express subsequent order of this Court.

10 57. Intervention After Judgment. (Prior Judgment Section  
11 49) Any person who is not a party or successor to a party and  
12 who proposes to Produce water from the Basin or Relevant  
13 Watershed, may seek to become a party to this Judgment through a  
14 Stipulation For Intervention entered into with Watermaster.  
15 Watermaster may execute said Stipulation on behalf of the other  
16 parties herein but such Stipulation shall not preclude a party  
17 from opposing such Intervention at the time of the Court hearing  
18 thereon. Said Stipulation For Intervention must thereupon be  
19 filed with the Court, which will consider an order confirming  
20 said Intervention following thirty (30) days' notice to the  
21 parties. Thereafter, if approved by the Court, such Intervenor  
22 shall be a party bound by this Judgment and entitled to the  
23 rights and privileges accorded under the Physical Solution  
24 herein.

25 58. Judgment Binding on Successors, etc. (Prior Judgment  
26 Section 50) Subject to specific provisions hereinbefore  
27 contained, this Judgment and all provisions thereof are  
28 applicable to and binding upon and inure to the benefit of not

1 only the parties to this action, but as well to their respective  
2 heirs, executors, administrators, successors, assigns, lessees,  
3 licensees and to the agents, employees and attorneys in fact of  
4 any such persons.

5 59. Water Rights Permits. (Prior Judgment Section 51)  
6 Nothing herein shall be construed as affecting the relative  
7 rights and priorities between MWD and San Gabriel Valley  
8 Protective Association under State Water Rights Permits Nos.  
9 7174 and 7175, respectively.

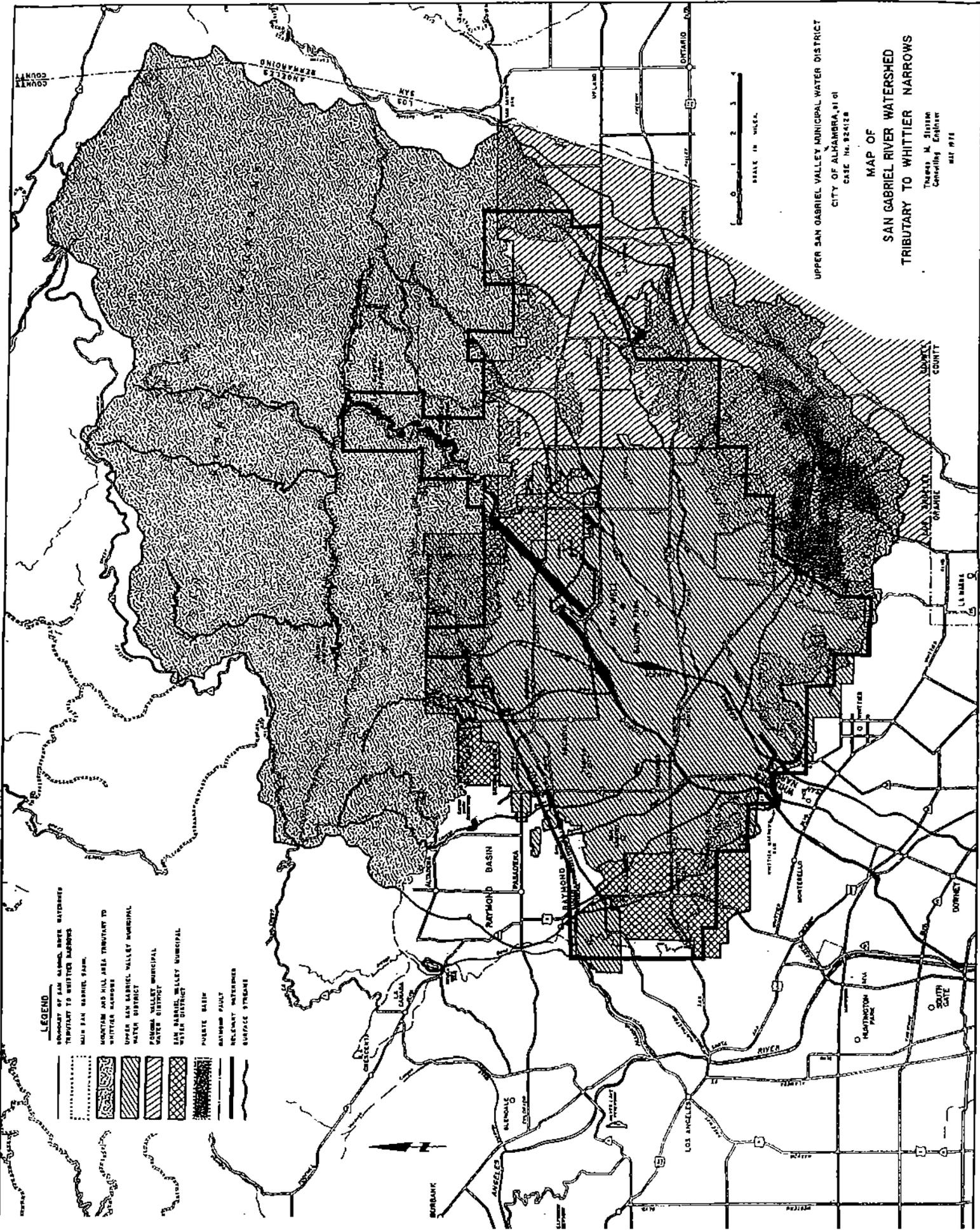
10 60. Costs. (Prior Judgment Section 52) No party shall  
11 recover any costs in this proceeding from any other party.

12 61. Entry of Judgment. (New) The Clerk shall enter this  
13 Judgment.

14 DATED: August 24, 1989.

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s/ Florence T. Pickard  
Florence T. Pickard, Judge  
Specially Assigned



**LEGEND**

- BOUNDARY OF SAN GABRIEL RIVER WATERSHED TRIBUTARY TO WHITTIER NARROWS
- MAIN SAN GABRIEL BASIN
- MOUNTAIN AND HILL AREA TRIBUTARY TO WHITTIER NARROWS
- UPPER SAN GABRIEL VALLEY MUNICIPAL WATER DISTRICT
- FOREMOUNT VALLEY MUNICIPAL WATER DISTRICT
- SAN GABRIEL VALLEY MUNICIPAL WATER DISTRICT
- PUENTE BASIN
- BURNING FAULT
- RELEVANT WATERSHED
- SURFACE STREAM

SCALE IN MILES  
0 1 2 3

UPPER SAN GABRIEL VALLEY MUNICIPAL WATER DISTRICT  
CITY OF ALHAMBRA, S.D.C.  
CASE No. 12418

**MAP OF  
SAN GABRIEL RIVER WATERSHED  
TRIBUTARY TO WHITTIER NARROWS**

Thomas M. Slavin  
Consulting Engineer  
MAY 1971

Exhibit "B"

BOUNDARIES OF RELEVANT WATERSHED

The following described property is located in Los Angeles County, State of California:

Beginning at the Southwest corner of Section 14, Township 1 North, Range 11 West, San Bernardino Base and Meridian;

Thence Northerly along the West line of said Section 14 to the Northwest corner of the South half of said Section 14;

Thence Easterly along the North line of the South half of Section 14 to the East line of said Section 14;

Thence Northerly along the East line of said Section 14, Township 1 North, Range 11 West and continuing Northerly along the East line of Section 11 to the Northeast corner of said Section 11;

Thence Easterly along the North line of Section 12 to the Northeast corner of said Section 12;

Thence Southerly along the East line of said Section 12 and continuing Southerly along the East line of Section 13 to the Southeast corner of said Section 13, said corner being also the Southwest corner of Section 18, Township 1 North, Range 10 West;

Thence Easterly along the South line of Sections 18, 17, 16 and 15 of said Township 1 North, Range 10 West to the Southwest corner of Section 14;

Thence Northerly along the West line of Section 14 to the Northwest corner of the South half of Section 14;

Thence Easterly along the North line of the South half of Section 14 to the East line of said section;

Thence Northerly along the East line of said Section 14, and continuing Northerly along the West line of Section 12 of said Township 1 North, Range 10 West to the North line of said Section 12;

Thence Easterly along the North line of said Section 12, to the Northeast corner of said Section 12, said corner being also the Southwest corner of Section 6, Township 1 North, Range 9 West;

Thence Northerly along the West line of said Section 6 and continuing Northerly along West line of Sections 31 and 30, Township 2 North, Range 9 West to the Westerly prolongation of the North line of said Section 30;

Thence Easterly along said Westerly prolongation of the North line of said Section 30 and continuing Easterly along the North line of Section 29 to the Northeast corner of said Section 29;

Thence Southerly along the East line of said Section 29 and continuing Southerly along the East line of Section 32, Township 2 North, Range 9 West, and thence continuing Southerly along the East line of Section 5, Township 1 North, Range 9 West to the Southeast corner of said Section 5;

Thence Westerly along the South line of said Section 5 to the Southwest corner of said Section 5, said point being also the Northwest corner of Section 8;

Thence Southerly along the West line of said Section 8 and continuing Southerly along the West line of Section 17, to the Southwest corner of said Section 17, said corner being also the Northwest corner of Section 20;

Thence Easterly along the North line of Sections 20 and 21 to the Northwest corner of Section 22, said corner being also the Southwest corner of Section 15;

Thence Northerly along the West line of said Section 15 to the Northwest corner of the South half of said Section 15;

Thence Easterly along the North line of said South half of Section 15 to the Northeast corner of said South half of Section 15;

Thence Southerly along the East line of Section 15 and continuing Southerly along the East line of Section 22 to the Southeast corner of said Section 22, said point being also the Southwest corner of Section 23;

Thence Easterly along the South line of Sections 23 and 24 to the East line of the West half of said Section 24;

Thence Northerly along said East line of the West half of Section 24 to the North line thereof;

Thence Easterly along said North line of Section 24 to the Northeast corner thereof, said point also being the Northwest corner of Section 19, Township 1 North, Range 8 West;

Thence continuing Easterly along the North line of Section 19 and Section 20 of said Township 1 North, Range 8 West to the Northeast corner of said Section 20;

Thence Southerly along the East line of Sections 20, 29 and 32 of said Township 1 North, Range 8 West to the Southeast corner of said Section 32;

Thence Westerly along the South line of Section 32 to the Northwest corner of the East half of Section 5, Township 1 South, Range 8 West;

Thence Southerly along the West line of the East half of said Section 5 to the South line of said Section 5;

Thence West to the East line of the Northerly prolongation of Range 9 West;

Thence South  $67^{\circ} 30'$  West to an intersection with the Northerly prolongation of the West line of Section 27, Township 1 South, Range 9 West;

Thence Southerly along the Northerly prolongation of said West line of Section 27 and continuing Southerly along the West line of Section 27 to the Southwest corner of said Section 27, said point being also the Southeast corner of Section 28;

Thence Westerly along the South line and Westerly projection of the South line of said Section 28 to the Northerly prolongation of the West line of Range 9 West;

Thence Southerly along said prolongation of the West line of Range 9 West to the Westerly prolongation of the North line of Township 2 South;

Thence Westerly along said Westerly prolongation of the North line of Township 2 South, a distance of 8,500 feet;

Thence South a distance of 4,500 feet;

Thence West a distance of 10,700 feet;

Thence South 29° West to an intersection with the Northerly prolongation of the West line of Section 20, Township 2 South, Range 10 West;

Thence Southerly along said Northerly prolongation of the West line of said Section 20 and continuing Southerly along the West line of Section 20 to the Southwest corner of said Section 20;

Thence South a distance of 2,000 feet;

Thence West a distance of two miles, more or less, to an intersection with the East line of Section 26, Township 2 South, Range 11 West;

Thence Northerly along said East line of Section 26 and continuing Northerly along the East line of Section 23, Township 2 South, Range 11 West to the Northeast corner of said Section 23;

Thence Westerly along the North line of said Section 23 to the Northwest corner thereof, said point being also the Southeast corner of Section 15, Township 2 South, Range 11 West;

Thence Northerly and Westerly along the East and North lines, respectively, of said Section 15, Township 2 South, Range 11 West, to the Northwest corner thereof;

Thence continuing Westerly along the Westerly prolongation of said North line of Section 15, Township 2 South, Range 11 West to an intersection with a line parallel to and one mile East of the West line of Range 11 West;

Thence Northerly along said parallel line to an intersection with the Northerly boundary of the City of Pico Rivera as said City of Pico Rivera existed on July 17, 1970;

Thence Westerly along said City boundary to an intersection with the East line of Range 12 West;

Thence Northerly along said East line of Range 12 West to the North line of Township 2 South;

Thence Westerly along the North line of Township 2 South to an intersection with the Southerly prolongation of the East line of the West half of Section 26, Township 1 South, Range 12 West;

Thence Northerly along said Southerly prolongation of said East line of the West half of said Section 26 to the Southeast corner of said West half;

Thence Westerly along the South line of Sections 26, 27 and 28, Township 1 South, Range 12 West, to the Southeast corner of Section 29, Township 1 South, Range 12 West;

Thence Northerly along the East line of said Section 29 to the Northeast corner of the South half of said Section 29;

Thence Westerly along the North line of the South half of said Section 29 to the Northwest corner thereof;

Thence Northerly along the West line of Sections 29, 20, 17 and 8, Township 1 South, Range 12 West;

Thence continuing Northerly along the Northerly prolongation of the West line of Section 8, Township 1 South, Range 12 West to an intersection with the North line of Township 1 South;

Thence Easterly along said North line of Township 1 South to the Northeast corner of Section 3, Township 1 South, Range 12 West;

Thence North  $64^{\circ} 30'$  East to an intersection with the West line of Section 23, Township 1 North, Range 11 West;

Thence Northerly along the West line of said Section 23 to the Northwest corner thereof, said point being the Southwest corner of Section 14, Township 1 North, Range 11 West and said point being also the point of beginning.

Exhibit "C"

TABLE  
SHOWING BASE  
ANNUAL DIVERSION  
RIGHTS OF CERTAIN  
DIVERTERS

	Base Annual Diversion Right <u>Acre-Feet</u>
Covell, Ralph (Successor to Rittenhouse, Catherine and Rittenhouse, James)	2.12
Maddock, A. G.	3.40
Rittenhouse, Catherine (Transferred to Covell, Ralph)	0
Rittenhouse, James (Transferred to Covell, Ralph)	0
Ruebhausen, Arline (Held in common with Ruebhausen, Victor) (Transferred to City of Glendale)	0
Ruebhausen, Victor (See Ruebhausen, Arline, above)	0
TOTAL	<u>5.52</u>

Exhibit "D"

TABLE  
SHOWING PRESCRIPTIVE PUMPING RIGHTS  
AND PUMPER'S SHARE OF EACH PUMPER  
AS OF JUNE, 1988

<u>Pumper</u>	<u>Prescriptive Pumping Right Acre-feet</u>	<u>Pumper's Share Percent (%)</u>
Adams Ranch Mutual Water Company	100.00	0.05060
A & E Plastik Pak Co., Inc. (Transferred to Industry Properties, Ltd.)	0	0
Alhambra, City of	8,812.05	4.45876
Amarillo Mutual Water Company	709.00	0.35874
Anchor Plating Co., Inc. (Successor to Bodger & Sons) (Transferred to Crown City Plating Co.)	0	0
Anderson, Ray L. and Helen T., Trustees (Successor to Covina-Valley Unified School District)	50.16	0.02538
Andrade, Marcario and Consuelo; and Andrade, Robert and Jayne (Successor to J. F. Isbell Estate, Inc.)	8.36	0.00423
Arcardia, City of (Successor to First National Finance Corporation) (Transferred to City of Monrovia)	9,252.00 60.90 <u>951.00</u>	4.68137 0.03081 <u>0.48119</u>
	8,361.90	4.23099
Associated Southern Investment Company (Transferred to Southern California Edison Company)	0	0
AZ-Two, Inc. (Lessee of Southwestern Portland Cement Co.)	0	0
Azusa, City	3,655.99	1.84988
Azusa-Western Inc. (Transferred to Southwestern Portland Cement Co.)	0	0
Bahnsen & Beckman Ind., Inc. (Transferred to Woodland, Richard)	0	0

<u>Pumper</u>	Prescriptive Pumping Right <u>    Acre-feet    </u>	Pumper's Share <u>    %    </u>
Bahnsen, Betty M. (Transferred to Dawes, Mary Kay)	0	0
Baldwin Park County Water District (See Valley County Water District)	-	-
Banks, Gale C. (Successor to Doyle, Mr. and Mrs.; and Madruga, Mr. and Mrs.)	50.00	0.02530
Base Line Water Company	430.20	0.21767
Beverly Acres Mutual Water Company	93.00	0.04706
Birenbaum, Max (Held in common with Birenbaum, Sylvia; Schneiderman, Alan; Schneiderman, Lydia; Wigodsky, Bernard; Wigodsky, Estera) (Transferred to City of Whittier)	0	0
Birenbaum, Sylvia (See Birenbaum, Max)	-	-
) Blue Diamond Concrete Materials Div., The Flintkote Company (Transferred to Sully-Miller Contracting Co.)	0	0
Bodger & Sons DBA Bodger Seeds Ltd. (Transferred to Anchor Plating Co., Inc.)	0	0
Botello Water Company	0	0
Burbank Development Company	50.65	0.02563
Cadway, Inc. (Successor to: Corcoran, Jack S. and R. L.)	100.00	0.05060
Corcoran, Jack S. and R. L.)	<u>100.00</u>	<u>0.05060</u>
	200.00	0.10120
Cal Fin (Transferred to Suburban Water Systems)	0	0
California-American Water Company (San Marino System)	7,868.70	3.98144
California Country Club	0	0

<u>Pumper</u>	<u>Prescriptive Pumping Right Acre-feet</u>	<u>Pumper's Share %</u>
California Domestic Water Company (Successor to: Cantrill Mutual Water Company Industry Properties, Ltd. Modern Accent Corporation Fisher, Russell)	11,024.82 42.50 73.50 256.86 <u>19.00</u> 11,416.68	5.57839 0.02150 0.03719 0.12997 <u>0.00961</u> 5.77666
California Materials Company	0	0
Cantrill Mutual Water Company (Transferred to California Domestic Water Co.)	0	0
Cedar Avenue Mutual Water Company	121.10	0.06127
Champion Mutual Water Company	147.68	0.07472
Chronis, Christine (See Polopolus, et al)	-	-
Clayton Manufacturing Company	511.80	0.25896
Collison, E. O.	0	0
Comby, Erma M. (See Wilmott, Erma M.)	-	-
Conrock Company (Formerly Consolidated Rock Products Co.) (Successor to Manning Bros. Rock & Sand Co.)	1,465.35 <u>328.00</u> 1,793.35	0.74144 <u>0.16596</u> 0.90740
Consolidated Rock Products Co. (See Conrock Company)	-	-
Corcoran, Jack S. (Held in common with Corcoran, R. L.) (Transferred to: Cadway, Inc. Cadway, Inc.)	747.00 100.00 <u>100.00</u> 547.00	0.37797 0.05060 <u>0.05060</u> 0.27677
Corcoran, R. L. (See Corcoran, Jack S.)	-	-
County Sanitation District No. 18 of Los Angeles County	4.50	0.00228

<u>Pumper</u>	<u>Prescriptive Pumping Right Acre-feet</u>	<u>Pumper's Share %</u>
Covell, et al. (Successor to Rittenhouse, Catherine and Rittenhouse, James) (Held in common with Jobe, Darr; Goedert, Lillian E.; Goedert, Marion W.; Lakin, Kendall R.; Lakin, Kelly R.; Snyder, Harry)	111.05	0.05619
Covina, City of (Transferred to Covina Irrigating Company)	2,507.89	1.26895
(Transferred to Covina Irrigating Company)	1,734.00	0.87737
	<u>300.00</u>	<u>0.15179</u>
	473.89	0.23979
Covina-Valley Unified School District (Transferred to Anderson, Ray)	0	0
Crevolin, A. J.	2.25	0.00114
Crocker National Bank, Executor of the Estate of A. V. Handorf (Transferred to Modern Accent Corp.)	0	0
Cross Water Company (Transferred to City of Industry)	0	0
Crown City Plating Company (Successor to Anchor Plating Co., Inc.)	190.00	0.09614
	<u>10.00</u>	<u>0.00506</u>
	200.00	0.10120
Davidson Optronics, Inc.	22.00	0.01113
Dawes, Mary Kay (Successor to Bahnsen, Betty M.)	441.90	0.22359
Del Rio Mutual Water Company	199.00	0.10069
Denton, Kathryn W., Trustee for San Jose Ranch Company (Transferred to White, June G., Trustee of the June G. White Share of the Garnier Trust)	0	0
Doyle, Mr. and Mrs.; and Madruga, Mr. and Mrs. (Successor to Sawpit Farms, Ltd.) (Transferred to Banks, Gale C.)	0	0
Driftwood Dairy	163.80	0.08288
Duhalde, L. (Transferred to El Monte Union High School District)	0	0

<u>Pumper</u>	<u>Prescriptive Pumping Right Acre-feet</u>	<u>Pumper's Share %</u>
Dunning, George (Held in common with Dunning, Vera H.) (Successor to Vera H. Dunning)	324.00	0.16394
Dunning, Vera H. (Transferred to George Dunning)	-	-
East Pasadena Water Company, Ltd.	1,407.69	0.71227
Eckis, Rollin (Successor to Sawpit Farms, Ltd.) (Transferred to City of Monrovia)	0	0
El Encanto Properties (Transferred to La Puente Valley County Water District)	0	0
El Monte, City of	2,784.23	1.40878
El Monte Cemetary Association	18.50	0.00936
El Monte Union High School District (Successor to Duhalde, L.) (Transferred to City of Whittier)	0	0
Everett, Mrs. Alda B. (Held in common with Everett, W. B., Executor of the Estate of I. Worth Everett)	0	0
Everett, W. B., Executor of the Estate of I. Worth Everett (See Everett, Mrs. Alda B.)	-	-
Faix, Inc. (Successor to Frank F. Pellissier & Sons, Inc.) (Transferred to Faix, Ltd.)	0	0
Faix, Ltd. (Successor to Faix, Inc.)	6,490.00	3.28384
First National Finance Corporation (Transferred to City of Arcadia)	0	0
Fisher, Russell (Held in common with Hauch, Edward and Warren, Clyde) (Transferred to California Domestic Water Company)	0	0

<u>Pumper</u>	<u>Prescriptive Pumping Right Acre-feet</u>	<u>Pumper's Share %</u>
Frank F. Pellissier & Sons, Inc. (Transferred to Faix, Inc.)	0	0
Fruit Street Water Company (Transferred to: Gifford, Brooks, Jr. City of La Verne)	0	0
Gifford, Brooks, Jr. (Successor to: Fruit Street Water Co., Mission Gardens Mutual Water Company) (Transferred to City of Whittier)	0	0
Gilkerson, Frank B. (Transferred to Jobe, Darr)	-	-
Glendora Unified High School District (Transferred to City of Glendora)	0	0
Goedert, Lillian E. (See Covell, et al)	-	-
Goedert, Marion W. (See Covell, et al)	-	-
Graham, William (Transferred to Darr Jobe)	-	-
Green, Walter	71.70	0.03628
Grizzle, Lissa B. (Held in common with Grizzle, Mervin A.; Wilson, Harold R.; Wilson, Sarah C.) (Transferred to City of Whittier)	0	0
Grizzle, Mervin A. (See Grizzle, Lissa B.)	0	0
Hansen, Alice	0.75	0.00038
Hartley, David	0	0
Hauch, Edward (See Fisher, Russell)	0	0
Hemlock Mutual Water Company	166.00	0.08399

<u>Pumper</u>	<u>Prescriptive Pumping Right Acre-feet</u>	<u>Pumper's Share %</u>
Hollenbeck Street Water Company (Transferred to Suburban Water Systems)	0	0
Hunter, Lloyd F. (Successor to R. Wade)	4.40	0.00223
Hydro-Conduit Corporation	0	0
Industry Waterworks System, City of (Successor to Cross Water Company)	1,103.00	0.55810
Industry Properties, Ltd. (Successor to A & E Plastik Pak Co., Inc.) (Transferred to California Domestic Water Co.)	0	0
J. F. Isbell Estate, Inc. (Transferred to Andrade, Macario and Consuelo; and Andrade, Robert and Jayne)	0	0
Jerris, Helen (See Polopolus, et al)	-	-
Jobe, Darr (See Covell, et al)	-	-
Kirklen Family Trust (Formerly Kirklen, Dawn L.) (Held in common with Kirklen, William R.) (Successor to San Dimas-La Verne Recreational Facilities Authority)	375.00 <u>62.50</u> 437.50	0.18974 <u>0.03162</u> 0.22136
Kirklen, Dawn L. (See Kirklen Family Trust)	-	-
Kirklen, William R. (See Kirklen, Dawn L.)	-	-
Kiyan, Hideo (Held in common with Kiyan, Hiro)	30.00	0.01518
Kiyan, Hiro (See Kiyan, Hideo)	-	-
Knight, Kathryn M. (Successor to William Knight)	227.88	0.11530
Knight, William (Transferred to Kathryn M. Knight)	0	0

<u>Pumper</u>	<u>Prescriptive Pumping Right Acre-feet</u>	<u>Pumper's Share %</u>
Lakin, Kelly R. (See Covell, et al)	-	-
Lakin, Kendall R. (See Covell, et al)	-	-
Landeros, John	0.75	0.00038
La Grande Source Water Company (Transferred to Suburban Water Systems)	0	0
Lang, Frank (Transferred to San Dimas-La Verne Recreational Facilities Authority)	0	0
La Puente Cooperative Water Company (Transferred to Suburban Water Systems)	0	0
La Puente Valley County Water District (Successor to El Encanto Properties)	1,097.00 <u>33.40</u> 1,130.40	0.55507 <u>0.01690</u> 0.57197
La Verne, City of (Successor to Fruit Street Water Co.)	250.00 <u>105.71</u> 355.71	0.12650 <u>0.05349</u> 0.17999
Lee, Paul M. and Ruth A.; Nasmyth, Virrginia; Nasmyth, John	0	0
Little John Dairy	0	0
Livingston-Graham, Inc.	1,824.40	0.92312
Los Flores Mutual Water Company (Transferred to City of Monterey Park)	0	0
Loucks, David	3.00	0.00152
Manning Bros. Rock & Sand Co. (Transferred to Conrock Company)	0	0
Maple Water Company	118.50	0.05996
Martinez, Frances Mercy (Held in common with Martinez, Jaime)	0.75	0.00038
Martinez, Jaime (See Martinez, Frances Mercy)	-	-
Massey-Ferguson Company	0	0

<u>Pumper</u>	<u>Prescriptive Pumping Right Acre-feet</u>	<u>Pumper's Share %</u>
Miller Brewing Company (Successor to: Maechtlen, Estate of J. J. Phillips, Alice B., et al)	111.01 151.50 <u>50.00</u> 312.51	0.05617 0.07666 <u>0.02530</u> 0.15813
Mission Gardens Mutual Water Company (Transferred to Gifford, Brooks, Jr.)	0	0
Modern Accent Corporation (Successor to Crocker National Bank, Executor of the Estate of A. V. Handorf) (Transferred to California Domestic Water Co.)	0	0
Monterey Park, City of (Successor to Los Flores Mutual Water Co.)	6,677.48 <u>26.60</u> 6,704.08	3.37870 <u>0.01346</u> 3.39216
Murphy Ranch Mutual Water Company (Transferred to Southwest Suburban Water)	0	0
Namimatsu Farms (Transferred to California Cities Water Company)	0	0
Nick Tomovich & Sons	0.02	0.00001
No. 17 Walnut Place Mutual Water Co. (Transferred to San Gabriel Valley Water Company)	0	0
Orange Production Credit Association	0	0
Owl Rock Products Co.	715.60	0.36208
Pacific Rock & Gravel Co. (Transferred to: City of Whittier Rose Hills Memorial Park Association)	0	0
Park Water Company (Transferred to Valley County Water District)	0	0
Penn, Margaret (See Polopolus, et al)	-	-
Pico County Water District	0.75	0.00038
Polopolus, John (See Polopolus, et al)	-	-

<u>Pumper</u>	<u>Prescriptive Pumping Right Acre-feet</u>	<u>Pumper's Share %</u>
Polopolus, et al (Successor to Polopolus, Steve) (Held in common with Chronis, Christine; Jerris, Helen; Penn, Margaret; Polopolus, John)	22.50	0.01138
Polopolus, Steve (Transferred to Polopolus, et al)	-	-
Rados, Alexander (Held in common with Rados, Stephen and Rados, Walter)	43.00	0.02176
Rados, Stephen (See Rados, Alexander)	-	-
Rados, Walter (See Rados, Alexander)	-	-
Richwood Mutual Water Company	192.60	0.09745
Rincon Ditch Company	628.00	0.31776
Rincon Irrigation Company	314.00	0.15888
Rittenhouse, Catherine (Transferred to Covell, Ralph)	0	0
Rittenhouse, James (Transferred to Covell, Ralph)	0	0
Rose Hills Memorial Park Association (Successor to Pacific Rock & Gravel Co.)	594.00 <u>200.00</u> 794.00	0.30055 <u>0.10120</u> 0.40175
Rosemead Development, Ltd. (Successor to Thompson, Earl W.)	1.00	0.00051
Rurban Homes Mutual Water Company	217.76	0.11018
Ruth, Roy	0.75	0.00038
San Dimas-La Verne Recreational Facilities Authority (Successor to Lang, Frank) (Transferred to Kirklen, Dawn L. and William R.)	0	0
San Gabriel Country Club	286.10	0.14476
San Gabriel County Water District	4,250.00	2.15044

<u>Pumper</u>	<u>Prescriptive Pumping Right Acre-feet</u>	<u>Pumper's Share %</u>
San Gabriel Valley Municipal Water District	0	0
San Gabriel Valley Water Company (Successor to: Vallecito Water Co. No. 17 Walnut Place Mutual Water Co.)	16,659.00 2,867.00 <u>21.50</u> 19,547.50	8.42920 1.45066 <u>0.01088</u> 9.89074
Sawpit Farms, Limited (Transferred to: Eckis, Rollin Doyle and Madruga)	0	0
Schneiderman, Alan (See Birenbaum, Max)	-	-
Schneiderman, Lydia (See Birenbaum, Max)	-	-
Security Pacific National Bank, Co-Trustee for the Estate of Winston F. Stoody (See Stoody, Virginia A.) (Transferred to City of Whittier)	0	0
Sierra Madre, City of	0	0
Sloan Ranches	129.60	0.06558
Smith, Charles	0	0
Snyder, Harry (See Covell, et al)	-	-
Sonoco Products Company	311.60	0.15766
South Covina Water Service	992.30	0.50209
Southern California Edison Company (Successor to: Associated Southern Investment Company)	155.25 <u>16.50</u> 171.75	0.07855 <u>0.00835</u> 0.08690
Southern California Water Company, San Gabriel Valley District	5,773.00	2.92105
South Pasadena, City of	3,567.70	1.80520
Southwest Suburban Water (See Suburban Water Systems)	-	-

<u>Pumper</u>	<u>Prescriptive Pumping Right Acre-feet</u>	<u>Pumper's Share %</u>
Southwestern Portland Cement Company (Successor to Azusa Western, Inc.)	742.00	0.37544
Speedway 605, Inc.	0	0
Standard Oil Company of California	2.00	0.00101
Sterling Mutual Water Company	120.00	0.06072
Stoody, Virginia A., Co-Trustee for the Estate of Winston F. Stoody (See Security Pacific National Bank, Co-Trustee)	-	-
Suburban Water Systems (Formerly Southwest Suburban Water) (Successor to:	20,462.47	10.35370
Hollenbeck Street Water Company	646.39	0.32706
La Grande Source Water Company	1,078.00	0.54545
La Puente Cooperative Water Co.	1,210.90	0.61270
Valencia Valley Water Company	651.50	0.32965
Victoria Mutual Water Company	469.60	0.23761
Cal Fin	118.10	0.05976
Murphy Ranch Mutual Water Co.	<u>223.23</u>	<u>0.11295</u>
	24,860.19	12.57888
Sully-Miller Contracting Company (Successor to Blue Diamond Concrete Materials Division, The Flintkote Co.)	1,399.33	0.70804
Sunny Slope Water Company	2,228.72	1.12770
Taylor Herb Garden (Transferred to Covina Irrigating Company)	0	0
Texaco, Inc.	50.00	0.02530
Thompson, Earl W. (Held in common with Thompson, Mary) (Transferred to Rosemead Development, Ltd.)	0	0
Thompson, Mary (See Thompson, Earl W.)	-	-
Tyler Nursery	3.21	0.00162
United Concrete Pipe Corporation (See U. S. Pipe & Foundry Company)	-	-

<u>Pumper</u>	<u>Prescriptive Pumping Right Acre-feet</u>	<u>Pumper's Share %</u>
U. S. Pipe & Foundry Company (Formerly United Concrete Pipe Corporation)	376.00	0.19025
Valencia Heights Water Company	861.00	0.43565
Valencia Valley Water Company (Transferred to Suburban Water Systems)	0	0
Vallecito Water Company (Transferred to San Gabriel Valley Water Company)	0	0
Valley County Water District (Formerly Baldwin Park County Water District) (Successor to Park Water Company)	5,775.00 <u>184.01</u> 5,959.01	2.92206 <u>0.09311</u> 3.01517
Valley Crating Company	0	0
Valley View Mutual Water Company	616.00	0.31169
Via, H. (See Via, H., Trust of)	-	-
Via, H., Trust of (Formerly Via, H.)	46.20	0.02338
Victoria Mutual Water Company (Transferred to Suburban Water Systems)	0	0
Wade, R. (Transferred to Lloyd F. Hunter)	0	0
Ward Duck Company	1,217.40	0.61599
Warren, Clyde (See Fisher, Russell)	-	-
W. E. Hall Company	0.20	0.00010
White, June G., Trustee of the June G. White Share of the Garnier Trust (Successor to Denton, Kathryn W., Trustee for the San Jose Ranch Company)	185.50	0.09386

) <u>Pumper</u>	<u>Prescriptive Pumping Right Acre-feet</u>	<u>Pumper's Share %</u>
Whittier, City of	7,620.23	3.85572
(Successor to:		
Grizzle, Lissa B.	184.00	0.09310
Pacific Rock and Gravel Co.)	208.00	0.10524
Security Pacific National Bank,		
Co-Trustee for the Estate of Winston F. Stoody	38.70	0.01958
El Monte Union High School District	16.20	0.00820
Gifford, Brooks, Jr.	198.25	0.10031
Birenbaum, Max)	<u>6.00</u>	<u>0.00304</u>
	8,271.38	4.18519
Wigodsky, Bernard		
(See Birenbaum, Max)	-	-
Wigodsky, Estera		
(See Birenbaum, Max)	-	-
Wilmott, Erma M.		
(Formerly Comby, Erma M.)	0.75	0.00038
Wilson, Harold R.		
(See Grizzle, Lissa B.)	-	-
) Wilson, Sarah C.		
(See Grizzle, Lissa B.)	-	-
Woodland, Frederick G.	-	-
Woodland, Richard		
(Successor to: Bahnsen and Beckman Ind., Inc.)	<u>840.50</u>	<u>0.42528</u>
Totals for Exhibit "D"	<u>155,800.68</u>	<u>78.83276</u>
Totals from Exhibit "E"	41,833.75	21.16724
	<del>38,026.25</del>	<del>19.54431</del>
GRAND TOTALS	<u>197,634.43</u>	<u>100.00000</u>

TABLE  
SHOWING PRODUCTION RIGHTS  
OF EACH  
INTEGRATED PRODUCER  
AS OF JUNE 1988

<u>Party</u>	<u>Diversion Component Acre-feet</u>	<u>Prescriptive Pumping Component Acre-feet</u>	<u>Pumping Component Share Percent (%)</u>
Azusa Agricultural Water Company	1,000.00	1,732.20	0.87647
Azusa Foot-Hill Citrus Water Company (Transferred to Monrovia Nursery Company)	0	0	0
Azusa Valley Water Company	2,422.00	8,274.00	4.18652
California-American Water Company (Duarte System)	1,672.00	3,649.00	1.84634
California Cities Water Company (See Southern California Water Company, San Dimas District)	-	-	-
Covina Irrigating Company (Successor to: City of Covina, City of Covina, and Taylor Herb Garden)	2,514.00	4,140.00 1,734.00 300.00 <u>6.00</u>	2.09478 0.87737 0.15179 <u>0.00304</u>
	<u>2,514.00</u>	<u>6,180.00</u>	<u>3.12698</u>
Glendora, City of (Successor to: Maechtlen, Estate of J. J., Maechtlen, Trust of P. A., Ruebhausen, Arline, and Glendora Unified High School District)	17.00   18.34 <u>35.34</u>	8,258.00  150.00 50.00  <u>9.00</u>	4.17842  0.07590 0.02530  <u>0.05009</u>
	<u>35.34</u>	<u>8,557.00</u>	<u>4.32971</u>
Los Angeles, County of	310.00	3,721.30	1.88292
Maechtlen, Estate of J. J. (Transferred to: City of Glendora Miller Brewing Company)	0   <u>0</u>	301.50  -150.00 <u>-151.50</u>	0.15256  -0.07590 <u>-0.07666</u>
	<u>0</u>	<u>0</u>	<u>0</u>

<u>Party</u>	<u>Diversion Componet Acre-feet</u>	<u>Prescriptive Pumping Component Acre-feet</u>	<u>Pumping Component Share %</u>
Maechtlen, Estate of J. J.	1.49	0	0
Maechtlen, Trust of P. A. (Transferred to: City of Glendora Alice B. Phillips, et al)	0.50 <u>-0.50</u> 0	100.50 -50.00 <u>-50.50</u> 0	0.05085 -0.02530 <u>-0.02555</u> 0
The Metropolitan Water District of Southern California	9.59	165.00	0.08349
Monrovia, City of (Successor to: Eckis, Rollin City of Arcadia)	1,098.00 <u>1,098.00</u>	5,042.22 123.00 <u>951.00</u> 6,116.22	2.55129 0.06224 <u>0.48119</u> 3.09472
Monrovia, Nursery Company (Successor to: Azusa Foot-Hill Citrus Co.)	239.50 718.50	0 0	0 0
Phillips, Alice B., et al (Successor to: Maechtlen, Trust of P. A.) (Transferred to: Miller Brewing Company)	0.50 <u>0.50</u>	50.50 -50.00 <u>0.50</u>	0.02530 -0.02530 <u>0.00025</u>
Southern California Water Company (San Dimas Dist.) (Formerly California Cities Water Company) (Successor to: Naminatsu Farms)	500.00 <u>500.00</u>	3,242.53 <u>196.00</u> <u>3,438.53</u>	1.64076 <u>0.09917</u> <u>1.73984</u>
<b>TOTAL for Exhibit "E"</b>	<u>10,520.92</u>	<u>41,833.75</u>	<u>21.16724</u>

Exhibit "F"

TABLE SHOWING  
SPECIAL CATAGORY RIGHTS

<u>PARTY</u>	<u>Nature of Right</u>
The Metropolitan Water District of Southern California	<u>Morris Reservoir Storage and Withdrawal</u> (a) A right to divert, store and use San Gabriel River Water, pursuant to Permit No. 7174.  (b) Prior and paramount right to divert 72 acre-feet annually to offset Morris Reservoir evaporation and seepage losses and to provide the water supply necessary for presently existing incidental Morris Dam facilities.
Los Angeles County Flood Control District (Now Los Angeles County Department of Public Works)	<u>Puddingstone Reservoir</u> Prior Prescriptive right to divert water from San Dimas Wash for storage in Puddingstone Reservoir in quantities sufficient to offset annual evaporation and seepage losses of the reservoir at approximate elevation 942.

Exhibit "G"

TABLE SHOWING  
NON-CONSUMPTIVE USERS

<u>Party</u>	<u>Nature of Right</u>
Covina Irrigating Company Azusa Valley Water Company Azusa Agricultural Water Co. Azusa Foot-Hill Citrus Co. Monrovia Nursery Company	<u>"Committee-of-Nine" Spreading Right</u> To continue to divert water from the San Gabriel River pursuant to the 1888 Settlement, and to spread in spreading grounds within the Basin all water thus diverted without the right to recapture water in excess of said parties' rights as adjudicated in Exhibit "E".
California-American Water Company (Duarte System)	<u>Spreading Right</u> To continue to divert water from the San Gabriel River pursuant to the 1888 Settlement, and to continue to divert water from Fish Canyon and to spread said waters in its spreading grounds in the Basin without the right to recapture water in excess of said party's rights as adjudicated in Exhibit "E".
City of Glendora	<u>Spreading Right</u> To continue to spread the water of Big and Little Dalton Washes, pursuant to License No. 2592 without the right to recapture water in excess of said party's rights as adjudicated in Exhibit "E".
San Gabriel Valley Protective Association	<u>Spreading Right</u> To continue to spread San Gabriel River water pursuant to License Nos. 9991 and 12,209, without the right to recapture said water.
California Cities Water Company	<u>Spreading Right</u> To continue to spread waters from San Dimas Wash without the right to recapture water in excess of said party's rights as adjudicated in Exhibit "E".
Los Angeles County Flood Control District	<u>Temporary storage</u> of storm flow for regulatory purposes;  <u>Spreading</u> and conservation for general benefit in streambeds, reservoirs and spreading grounds without the right to recapture said water.  <u>Maintenance and operation</u> of dams and other flood control works.

EXHIBIT "H"

WATERMASTER OPERATING CRITERIA

1. Basin Storage Capacity. The highest water level at the end of a water year during the past 40 years was reached at the Key Well on September 30, 1944 (elevation 316). The State of California, Department of Water Resources, estimates that as of that date, the quantity of fresh water in storage in the Basin was approximately 8,600,000 acre-feet. It is also estimated by said Department that by September 30, 1960, the quantity of fresh water in storage had decreased to approximately 7,900,000 acre-feet (elevation 237) at the Key Well).

The lowest water level at the end of a water year during the past 40 years was reached at the Key Well on September 30, 1965 (elevation 209). It is estimated that the quantity of fresh water in storage in the Basin on that date was approximately 7,700,000 acre-feet.

Thus, the maximum utilization of Basin storage was approximately 900,000 acre-feet, occurring between September 30, 1944, and September 30, 1965 (between elevations 316 and 209 at the Key Well). This is not to say that more than 900,000 acre-feet of storage space below the September 30, 1944 water levels cannot be utilized. However, it demonstrates that pumpers have deepened their wells and lowered their pumps so that such 900,000 acre-feet of storage can be safely and economically utilized.

The storage capacity of the Basin between elevations of 200 and 250 at the Key Well represents a usable volume of approximately 400,000 acre-feet of water.

2. Operating Safe Yield and Spreading. Watermaster in determining Operating Safe Yield and the importation of Replacement Water shall be guided by water level elevations in the Basin. He shall give recognition to, and base his operations on, the following general objectives insofar as practicable:

- (a) The replenishment of ground water from sources of supplemental water should not cause excessively high levels of ground water and such replenishment should not cause undue waste of local water supplies.
- (b) Certain areas within the Basin are not at the present time capable of being recharged with supplemental water. Efforts should be made to provide protection to such areas from excessive ground water lowering either through the "in lieu" provisions of the Judgment or by other means.
- (c) Watermaster shall consider and evaluate the long-term consequences on ground water quality, as well as quantity, in determining and establishing Operating Safe Yield. Recognition shall be given to the enhancement of ground water quality insofar as practicable, especially in the area immediately upstream of Whittier Narrows where degradation of water quality may occur when water levels at the Key Well are maintained at or below elevation 200.
- (d) Watermaster shall take into consideration the comparative costs of supplemental and Make-up Water in determining the savings on a present value basis of temporary or permanent lowering or raising of water levels and other economic data and analyses indicating both the short-term and long-term

) propriety of adjusting Operating Safe Yield in order to derive optimum water levels during any period. Watermaster shall utilize the provisions in the Long Beach Judgment which will result in the least cost of delivering Make-up Water.

3. Replacement Water -- Sources and Recharge Criteria. The following criteria shall control purchase of Replacement Water and Recharge of the Basin by Watermaster.

(a) Responsible Agency From Which to Purchase. Watermaster, in determining the Responsible Agency from which to purchase supplemental water for replacement purposes, shall be governed by the following:

) (1) Place of Use of Water which is used primarily within the Basin or by cities within San Gabriel District in areas within or outside the Basin shall control in determining the Responsible Agency. For purposes of this subparagraph, water supplied through a municipal water system which lies chiefly within the Basin shall be deemed entirely used within the Basin; and

(2) Place of production of water shall control in determining the Responsible Agency as to water exported from the Basin, except as to use within San Gabriel District.

Any Responsible Agency may, at the request of Watermaster, waive its right to act as the source for such supplemental water, in which case Watermaster shall be free to purchase such water from the remaining Responsible Agencies which are the most beneficial and appropriate sources; provided, however, that a Responsible Agency shall not

authorize any sale of water in violation of the California Constitution.

(b) Water Quality. Watermaster shall purchase the best quality of supplemental water available for replenishment of the Basin, pursuant to subsection (a) hereof.

(c) Reclaimed Water. It is recognized that the technology and economic and physical necessity for utilization of reclaimed water is increasing. The purchase of reclaimed water in accordance with the Long Beach Judgment to satisfy the Make-up Obligation is expressly authorized. At the same time, water quality problems involved in the reuse of water within the Basin pose serious questions of increased costs and other problems to the pumpers, their customers and all water users. Accordingly, Watermaster is authorized to gather information, make and review studies, and make recommendations on the feasibility of the use of reclaimed water for replacement purposes; provided that no reclaimed water shall be recharged in the Basin by Watermaster without the prior approval of the court, after notice to all parties and hearing thereon.

4. Replacement Assessment Rates. The Replacement Assessment rates shall be in an amount calculated to allow Watermaster to purchase one acre-foot of supplemental water for each acre-foot of excess Production to which such Assessment applies.

EXHIBIT "J"

PUENTE NARROWS AGREEMENT

THIS AGREEMENT is made and entered into as of the 8th day of May, 1972, by and between PUENTE BASIN WATER AGENCY, herein called "Puente Agency", and UPPER SAN GABRIEL VALLEY MUNICIPAL WATER DISTRICT, herein called "Upper District".

A. RECITALS

1. Puente Agency. Puente Agency is a joint powers agency composed of Walnut Valley Water District, herein called "Walnut District", and Rowland Area County Water District, herein called "Rowland District". Puente Agency is formed for the purpose of developing and implementing a ground water basin management program for Puente Basin. Pursuant to said purpose, said Agency is acting as a representative of its member districts and of the water users and water right claimants therein in the defense and maintenance of their water rights within Puente Basin.

2. Upper District. Upper District is a municipal water district overlying a major portion of the Main San Gabriel Basin. Upper District is plaintiff in the San Gabriel Basin Case, wherein it seeks to adjudicate rights and implement a basin management plan for the Main San Gabriel Basin.

3. Puente Basin is a ground water basin tributary to the Main San Gabriel Basin. Said area was included within the scope of the San Gabriel Basin Case and substantially

all water rights claimants within Puente Basin were joined as defendants therein. The surface contribution to the Main San Gabriel Basin from Puente Basin is by way of the paved flood control channel of San Jose Creek, which passes through Puente Basin from the Pomona Valley area. Subsurface outflow is relatively limited and moves from the Puente Basin to the Main San Gabriel Basin through Puente Narrows.

4. Intent of Agreement. Puente Agency is prepared to assure Upper District that no activity within Puente Basin will hereafter be undertaken which will (1) interfere with surface flows in San Jose Creek, or (2) impair the subsurface flow from Puente Basin to the Main San Gabriel Basin. Walnut District and Rowland District, by operation of law and by express assumption endorsed hereon, assume the covenants of this agreement as a joint and several obligation. Based upon such assurances and the covenants hereinafter contained in support thereof, Upper District consents to the dismissal of all Puente Basin parties from the San Gabriel Basin Case. By reason of said dismissals, Puente Agency will be free to formulate a separate water management program for Puente Basin.

#### B. DEFINITIONS AND EXHIBITS

5. Definitions. As used in this Agreement, the following terms shall have the meanings herein set forth:

(a) Annual or Year refers to the fiscal year July 1 through June 30.

(b) Base Underflow. The underflow through

Exhibit "J"

Puente Narrows which Puente Agency agrees to maintain, and on which accrued debits and credits shall be calculated.

(c) Make-up Payment. Make-up payments shall be an amount of money payable to the Watermaster appointed in the San Gabriel Basin Case, sufficient to allow said Watermaster to purchase replacement water on account of any accumulated deficit as provided in Paragraph 9 hereof.

(d) Puente Narrows. The subsurface geologic constriction at the downstream boundary of Puente Basin, located as shown on Appendix "B".

(e) Main San Gabriel Basin, the ground water basin shown and defined as such in Exhibit "A" to the Judgment in the San Gabriel Basin Case.

(f) San Gabriel Basin Case. Upper San Gabriel Valley Municipal Water District v. City of Alhambra, et al., L. A. Sup. Ct. No. 924128, filed January 2, 1968.

6. Appendices. Attached hereto and by this reference made a part hereof are the following appendices:

"A" -- Location Map of Puente Basin, showing major geographic, geologic, and hydrologic features.

"B" -- Map of Cross-Section Through Puente Narrows, showing major physical features and location of key wells.

Exhibit "J"

"C" -- Engineering Criteria, being a description of a method of measurement of subsurface outflow to be utilized for Watermaster purposes.

C. COVENANTS

7. Watermaster. There is hereby created a two member Watermaster service to which each of the parties to this agreement shall select one consulting engineer. The respective representatives on said Watermaster shall serve at the pleasure of the governing body of each appointing party and each party shall bear its own Watermaster expense.

a. Organization. Watermaster shall perform the duties specified herein on an informal basis, by unanimous agreement. In the event the two representatives are unable to agree upon any finding or decision, they shall select a third member to act, pursuant to the applicable laws of the State of California. Thereafter, until said issue is resolved, said three shall sit formally as a board of arbitration. Upon resolution of the issue in dispute, the third member shall cease to function further.

b. Availability of Information. Each party hereto shall, for itself and its residents and water users, use its best efforts to furnish all appropriate information to the Watermaster in order that the required determination can be made.

Exhibit "J"

c. Cooperation With Other Watermasters. Watermaster hereunder shall cooperate and coordinate activities with the Watermasters appointed in the San Gabriel Basin Case and in Long Beach v. San Gabriel Valley Water Company, et al.

d. Determination of Underflow. Watermaster shall annually determine the amount of underflow from Puente Basin to the San Gabriel Basin, pursuant to Engineering Criteria.

e. Perpetual Accounting. Watermaster shall maintain a perpetual account of accumulated base underflow, accumulated subsurface flow, any deficiencies by reason of interference with surface flows, and the offsetting credit for any make-up payments. Said account shall annually show the accumulated credit or debit in the obligation of Puente Agency to Upper District.

f. Report. Watermaster findings shall be incorporated in a brief written report to be filed with the parties and with the Watermaster in the San Gabriel Basin Case. Said report shall contain a statement of the perpetual account heretofore specified.

8. Base Underflow. On the basis of a study and review of historic underflow from Puente Basin to the Main San Gabriel Basin, adjusted for the effect of the paved flood control channel and other relevant considerations, it is

mutually agreed by the parties that the base underflow is and shall be 580 acre feet per year, calculated pursuant to Engineering Criteria.

9. Puente Agency's Obligation. Puente Agency covenants, agrees and assumes the following obligation hereunder:

a. Noninterference with Surface Flow. Neither Puente Agency nor any persons or entities within the corporate boundaries of Walnut District or Rowland District will divert or otherwise interfere with or utilize natural surface runoff now or hereafter flowing in the storm channel of San Jose Creek; provided, however, that this covenant shall not prevent the use, under Watermaster supervision, of said storm channel by the Puente Agency or Walnut District or Rowland District for transmission within Puente Agency of supplemental or reclaimed water owned by said entities and introduced into said channel solely for transmission purposes. In the event any unauthorized use of surface flow in said channel is made contrary to the covenant herein provided, Puente Agency shall compensate Upper District by utilizing any accumulated credit or by make-up payment in the same manner as is provided for deficiencies in subsurface outflow from Puente Basin.

b. Subsurface Outflow. To the extent that

Exhibit "J"

the accumulated subsurface outflow falls below the accumulated base underflow and the result thereof is an accumulated deficit in the Watermaster's annual accounting, Puente Agency agrees to provide make-up payments during the next year in an amount not less than one-third of the accumulated deficit.

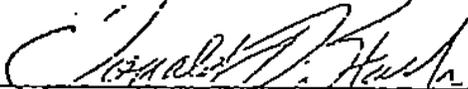
c. Purchase of Reclaimed Water. To the extent that Puente Agency or Walnut District or Rowland District may hereafter purchase reclaimed water from the facilities of Sanitation District 21 of Los Angeles County, such purchaser shall use its best efforts to obtain waters originating within San Gabriel River Watershed.

10. Puente Basin Parties Dismissal. In consideration of the assumption of the obligation hereinabove provided by Puente Agency, Upper District consents to entry of dismissals as to all Puente Basin parties in San Gabriel Basin Case. This agreement shall be submitted for specific approval by the Court and a finding that it shall operate as full satisfaction of any and all claims by the parties within Main San Gabriel Basin against Puente Basin parties by reason of historic surface and subsurface flow.

Exhibit "J"

IN WITNESS WHEREOF the parties hereto have caused this Agreement to be executed as of the day and date first above written.

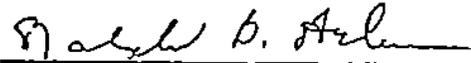
Approved as to form:  
CLAYSON, STARK, ROTHROCK & MANN

By   
Attorneys for Puente Agency

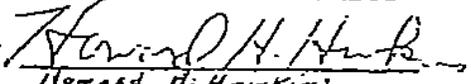
PUENTE BASIN AGENCY

By   
EDWARD M. BIEDERMAN  
President

Approved as to form:

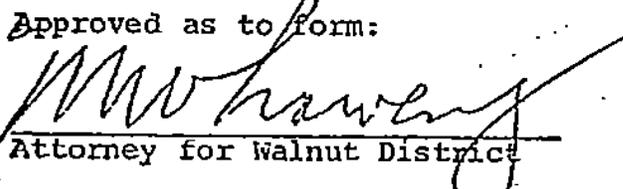
By   
Attorney for Upper District

UPPER SAN GABRIEL VALLEY  
MUNICIPAL WATER DISTRICT

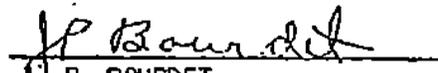
By   
Howard H. Hawkins  
President

The foregoing agreement is approved and accepted, and the same is acknowledged as the joint and several obligation of the undersigned.

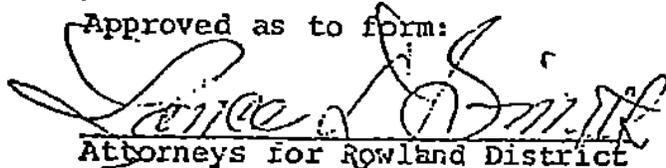
Approved as to form:

  
Attorney for Walnut District

WALNUT VALLEY WATER DISTRICT

By   
J. P. BOURDET  
Vice President

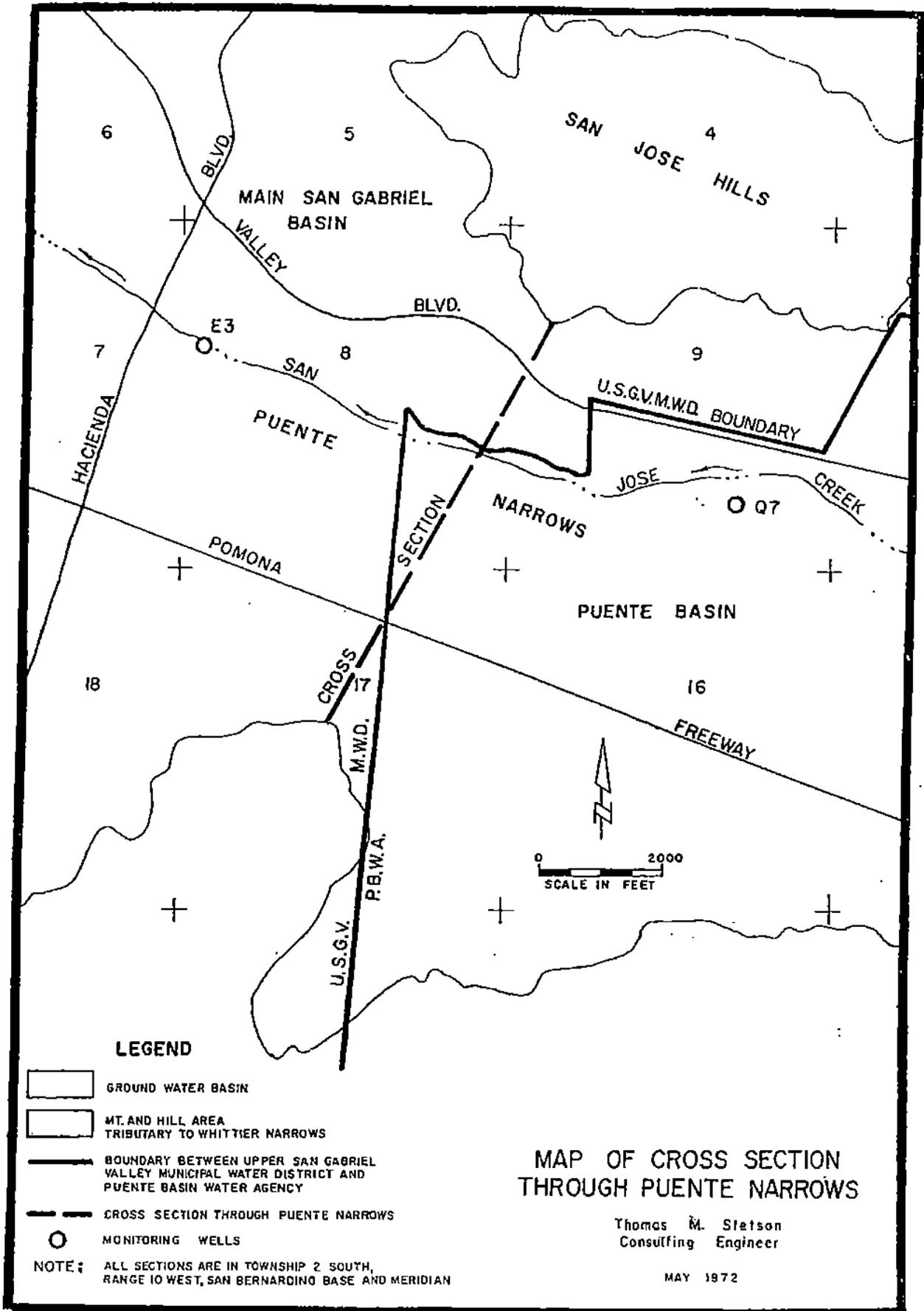
Approved as to form:

  
Attorneys for Rowland District

ROWLAND AREA COUNTY WATER  
DISTRICT

By   
President  
Wm. A. Simmons





**LEGEND**

-  GROUND WATER BASIN
-  MT. AND HILL AREA TRIBUTARY TO WHITTIER NARROWS
-  BOUNDARY BETWEEN UPPER SAN GABRIEL VALLEY MUNICIPAL WATER DISTRICT AND PUENTE BASIN WATER AGENCY
-  CROSS SECTION THROUGH PUENTE NARROWS
-  MONITORING WELLS

NOTE: ALL SECTIONS ARE IN TOWNSHIP 2 SOUTH, RANGE 10 WEST, SAN BERNARDINO BASE AND MERIDIAN

**MAP OF CROSS SECTION THROUGH PUENTE NARROWS**

Thomas M. Stetson  
Consulting Engineer

MAY 1972

ENGINEERING CRITERIA

APPENDIX "C"

1. Monitoring Wells. The wells designated as State Wells No. 2S/10W-9Q7 and 2S/10W-8E3 and Los Angeles County Flood Control District Nos. 3079M and 3048B, respectively, shall be used to measure applicable ground water elevations. In the event either monitoring well should fail or become unrepresentative, a substitute well shall be selected or drilled by Watermaster. The cost of drilling a replacement well shall be the obligation of the Puente Agency.

2. Measurement. Each monitoring well shall be measured and the ground water elevation determined semi-annually on or about April 1 and October 1 of each year. Prior to each measurement, the pump shall be turned off for a sufficient period to insure that the water table has recovered to a static or near equilibrium condition.

3. Hydraulic Gradient. The hydraulic gradient, or slope of the water surface through Puente Narrows, shall be calculated between the monitoring wells as the difference in water surface elevation divided by the distance, approximately 9,000 feet, between the wells. The hydraulic gradient shall be determined for the spring and fall and the average hydraulic gradient calculated for the year.

4. Ground Water Elevation at Puente Narrows Cross Section. The ground water elevation at the Puente Narrows

APPENDIX "C"

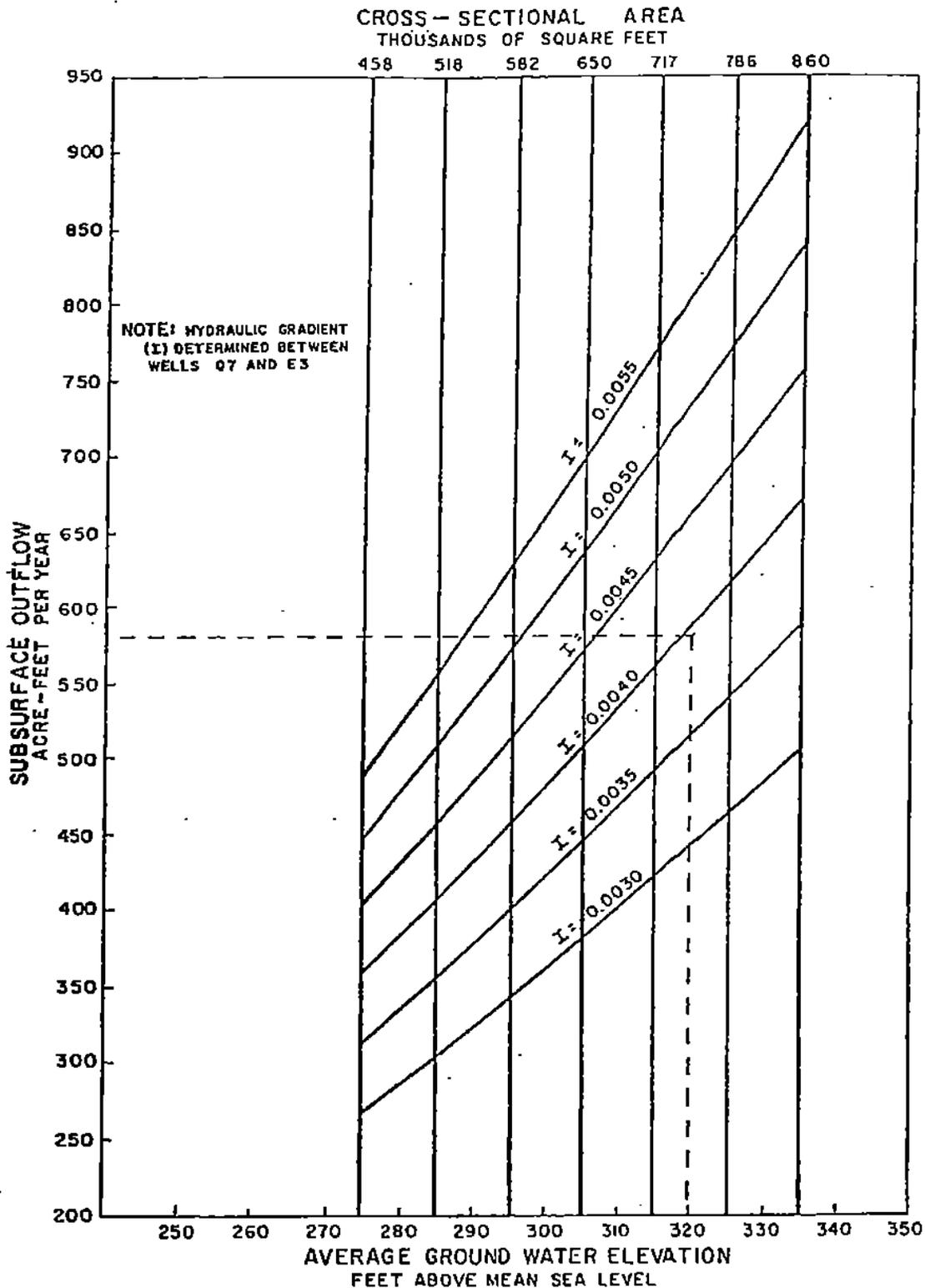
Exhibit "J"

cross section midway between the monitoring wells shall be the average of the ground water elevation at the two wells. This shall be determined for the spring and fall and the average annual ground water elevation calculated for the year.

5. Determination of Underflow. The chart attached is a photo-reduction of a full scale chart on file with the Watermaster. By applying the appropriate average annual hydraulic gradient (I) to the average annual ground water elevation at the Puente Narrows cross section (involving the appropriate cross-sectional area [A]), it is possible to read on the vertical scale the annual acre feet of underflow.

APPENDIX "C"

Exhibit "J"



**RELATIONSHIP OF AVERAGE GROUND WATER ELEVATION AT PUENTE NARROWS AND APPLICABLE CROSS-SECTIONAL AREA WITH SUBSURFACE OUTFLOW THROUGH PUENTE NARROWS FOR VARIOUS HYDRAULIC GRADIENTS**

Thomas M. Stetson  
Consulting Engineer

MAY 1972

EXHIBIT "K"

OVERLYING RIGHTS

I. NATURE OF OVERLYING RIGHT

An "Overlying Right" is the right to Produce water from the Main San Gabriel Basin for use on the overlying lands hereinafter described. Such rights are exercisable without quantitative limit only on said overlying land and cannot be separately conveyed or transferred apart therefrom. The exerciser of such right is assessable by Watermaster as provided in Paragraph 21 of the Amended Judgment herein (prior Paragraph 14.5 of the Judgment herein) and is subject to the other provisions of said Paragraph.

II. OVERLYING LANDS (Description)

The overlying lands to which Overlying Rights are appurtenant are described as follows:

"Those portions of Lots 1 and 2 of the lands formerly owned by W.A. Church, in the Rancho San Francisquito, in the City of Irwindale, County of Los Angeles, State of California, as shown on recorder's filed map No. 509, in the office of the County Recorder of said County, lying northeasterly of the northeasterly line and its southeasterly prolongation of Tract 1888, as shown on map recorded in Book 21 page 183 of Maps, in the office of the County Recorder of said County.

"EXCEPT the portions thereof lying northerly and northwesterly of the center line of Arrow Highway described 'Sixth' and the center line of Live Oak Avenue described 'Third' in a final decree of condemnation, a certified copy of which was recorded August 18, 1933 as Instrument No. 354, in Book 12289, Page 277, Official Records.

"ALSO EXCEPT that portion of said land described in the final decree of condemnation entered in Los Angeles County Superior Court Case No. 805008, a certified copy of which was recorded September 21, 1964, as Instrument No. 3730, in Book D-2634, Page 648, Official Records."

III. PRODUCERS ENTITLED TO EXERCISE OVERLYING RIGHTS AND THEIR RESPECTIVE CONSUMPTIVE USE PORTIONS

The persons entitled to exercise Overlying Rights are both the owners of Overlying Rights and persons and entities licensed by such owners to exercise such Overlying Rights. The persons entitled to exercise Overlying Rights and their respective Consumptive Use portions are as follows:

<u>OWNER PRODUCERS</u>	<u>CONSUMPTIVE USE PORTION</u>
BROOKS GIFFORD, SR. BROOKS GIFFORD, JR. PAUL MNOIAN JOHN MGRDICHIAN J. EARL GARRETT	3.5 acre-feet per year

Present User:  
Nu-Way Industries

PRODUCERS UNDER LICENSE

- |   |                               |
|---|-------------------------------|
| A. WILLIAM C. THOMAS<br>and EVELYN F. THOMAS,<br>husband and wife, and<br>MALCOLM K. GATHERER<br>and JACQUELINE GATHERER,<br>husband and wife,<br>doing business by<br>and through B & B<br>REDI-I-MIX CONCRETE,<br>INC., a corporation | 45.6 acre-feet per year       |
| B. PRE-STRESS CRANE RIGGING &<br>TRUCK CO., INC.,<br>a corporation  | <u>1.0</u> acre-foot per year |

Present Users:  
Pre-Stress Crane Rigging &  
Truck Co., Inc., a corporation

Total 50.1 acre-feet per year

IV. ANNUAL GROSS AMOUNT OF PRODUCTION FROM WHICH CONSUMPTIVE USE PORTIONS WERE DERIVED

183.65 acre-feet

Exhibit "L"

LIST OF PRODUCERS AND THEIR DESIGNEES  
June, 1989

<u>Producer Name</u>	<u>Designee</u>
<u>A</u>	
Adams Ranch Mutual Water Company	Goji Iwakiri
Alhambra, City of	T. E. Shollenberger
Amarillo Mutual Water Company	Ester Guadagnolo
Anderson, Ray	Ray Anderson
Andrade, Macario, et al.	Macario R. Andrade
Arcadia, City of	Eldon Davidson
AZ-Two, Inc.	R. S. Chamberlain
Azusa, City of	William H. Redcay
Azusa Ag. Water Company	Robert E. Talley
Azusa Valley Water Company	Edward Heck
<u>B</u>	
Baldwin Park County Water District (See Valley County Water District)	-
Banks, Gale C.	Gale C. Banks
Base Line Water Company	Everett W. Hughes, Jr.
Beverly Acres Mutual Water User's Assn. (Formerly Beverly Acres Mutual Water Co.)	Eloise A. Moore
Burbank Development Company	Darrell A. Wright
<u>C</u>	
Cadway, Inc.	P. Geoffrey Nunn
California-American Water Company (San Marino System)	Andrew A. Krueger
California-American Water Company (Duarte System)	Andrew A. Krueger
California Country Club	Henri F. Pellissier
California Domestic Water Company	P. Geoffrey Nunn
Cedar Avenue Mutual Water Company	Austin L. Knapp

Exhibit "L"

<u>Producer Name</u>	<u>Designee</u>
Champion Mutual Water Company	Margaret Bauwens
Chevron, USA, Inc.	Ms. Margo Bart
Clayton Manufacturing Company	Don Jones
Conrock Company	Gene R. Block
Corcoran Brothers	Ray Corcoran
County Sanitation District No. 18	Charles W. Curry
Covell, et al.	Darr Jobe
Covell, Ralph	Ralph Covell
Covina, City of	Wayne B. Dowdey
Covina Irrigating Company	William R. Temple
Crevolin, A. J.	A. J. Crevolin
Crown City Plating Company	N. G. Gardner
<u>D</u>	
Davidson Optronics, Inc.	James McBride
Dawes, Mary Kay	Mary Kay Dawes
Del Rio Mutual Water Company	Gonzalo Galindo
Driftwood Dairy	James E. Dolan
Dunning, George	George Dunning
<u>E</u>	
East Pasadena Water Company	Robert D. Mraz
El Monte, City of	Robert J. Pinniger
El Monte Cemetery Association	Linn E. Magoffin
<u>F</u>	
Faix, Ltd.	Henri F. Pellissier
<u>G</u>	
Glendora, City of	Arthur E. Cook
Green, Walter	Dr. Walter Green
<u>H</u>	
Hansen, Alice	Alice Hansen

Exhibit "L"

<u>Producer Name</u>	<u>Designee</u>
Hartley, David	David Hartley
Hemlock Mutual Water Company	Bud Selander
Hunter, Lloyd F.	Lloyd F. Hunter
<u>I</u> Industry Waterworks System, City of	Mary L. Jaureguy
<u>K</u> Kiyon Farm Kiyon, Hideo	Mrs. Hideo Kiyon
Kirklen Family Trust	Dawn Kirklen
Knight, Kathryn M.	William J. Knight
<u>L</u> Landeros, John	John Landeros
La Puente Valley County Water District	Mary L. Jaureguy
La Verne, City of	N. Kathleen Hamm
Livingston-Graham	Gary O. Tompkins
Los Angeles, County of	Robert L. Larson
Loucks, David	David Loucks
<u>M</u> Maddock, A. G.	Ranney Draper, Esq.
Maechtlen, Trust of J. J.	Jack F. Maechtlen
Maple Water Company, Inc.	Charles King
Martinez, Francis Mercy	Francis Mercy Martinez
Metropolitan Water District of Southern California	Fred Vendig, Esq.
Miller Brewing Company	Dennis B. Puffer
Mnoian, Paul, et al.	Mal Gatherer
Monrovia, City of	Robert K. Sandwick
Monrovia Nursery	Miles R. Rosedale
Monterey Park, City of	Nels Palm

Exhibit "L"

<u>Producer Name</u>	<u>Designee</u>
<u>N</u> Nick Tomovich & Sons	Nick Tomovich
<u>O</u> Owl Rock Products Company	Peter L. Chiu
<u>P</u> Phillips, Alice B., et al. Pico County Water District Polopolus, et al.	Jack F. Maechtlen Robert P. Fuller Christine Chronis
<u>R</u> Rados Brothers Richwood Mutual Water Company Rincon Ditch Company Rincon Irrigation Company Rose Hills Memorial Park Association Rosemead Development, Ltd. Rurban Homes Mutual Water Company Ruth, Roy	Alexander S. Rados Bonnie Pool K. E. Nungesser K. E. Nungesser Allan D. Smith John W. Lloyd George W. Bucey Roy Ruth
<u>S</u> San Dimas - La Verne Recreational Facilities Authority San Gabriel Country Club San Gabriel County Water District San Gabriel Valley Municipal Water District San Gabriel Valley Water Company Sloan Ranches Sonoco Products Company South Covina Water Service Southern California Edison Company	R. F. Griszka Fran Wolfe Philip G. Crocker Bob Stallings Robert H. Nicholson, Jr. Larry R. Sloan Elaine Corboy Anton C. Garnier S. R. Shermoen

Exhibit "L"

<u>Producer Name</u>	<u>Designee</u>
Southern California Water Company -San Dimas District	J. F. Young
Southern California Water Company -San Gabriel Valley District	J. F. Young
South Pasadena, City of	John Bernardi
Southwestern Portland Cement Company	Dale W. Heineck
Standard Oil Company of California	John A. Wild
Sterling Mutual Water Company	Bennie L. Prowett
Suburban Water Systems	Anton C. Garnier
Sully-Miller Contracting Company	R. R. Munro
Sunny Slope Water Company	Michael J. Hart
<u>T</u> Taylor Herb Garden	Paul S. Taylor
Texaco, Inc.	E. O. Wakefield
Tyler Nursery	James K. Mitsumori, Esq.
<u>U</u> United Concrete Pipe Corporation	Doyle H. Wadley
United Rock Products Corporation	William S. Capps, Esq.
<u>V</u> Valencia Heights Water Company	Herman Weskamp
Valley County Water District (Formerly Baldwin Park County Water District)	Stanley D. Yarbrough
Valley View Mutual Water Company	Robert T. Navarre
Via, H., Trust of	Marverna Parton
<u>W</u> Ward Duck Company	Richard J. Woodland
W. E. Hall Company	Thomas S. Bunn, Jr., Esq.
White, June G., Trustee	June G. Lovelady
Whittier, City of	Neil Hudson
Wilmott, Erma M.	Erma M. Wilmott

Exhibit "M"

WATERMASTER MEMBERS

FOR CALENDAR YEAR 1973

ROBERT T. BALCH (Producer Member), Chairman  
LINN E. MAGOFFIN (Producer Member), Vice Chairman  
RICHARD L. ROWLAND (Producer Member), Secretary  
BOYD KERN (Public Member), Treasurer  
WALKER HANNON (Producer Member)  
HOWARD H. HAWKINS (Public Member)  
M. E. MOSLEY (Producer Member)  
CONRAD T. REIBOLD (Public Member)  
HARRY C. WILLS (Producer Member)

STAFF

Carl Fossette, Assistant Secretary-Assistant Treasurer  
Ralph B. Helm, Attorney  
Thomas M. Stetson, Engineer

FOR CALENDAR YEAR 1974

ROBERT T. BALCH (Producer Member), Chairman  
LINN E. MAGOFFIN (Producer Member), Vice Chairman  
RICHARD L. ROWLAND (Producer Member), Secretary  
BOYD KERN (Public Member), Treasurer  
WALKER HANNON (Producer Member)  
BURTON E. JONES (Public Member)  
M. E. MOSLEY (Producer Member)  
CONRAD T. REIBOLD (Public Member)  
HARRY C. WILLS (Producer Member)

STAFF

Carl Fossette, Assistant Secretary-Assistant Treasurer  
Ralph B. Helm, Attorney  
Thomas M. Stetson, Engineer

FOR CALENDAR YEAR 1975

ROBERT T. BALCH (Producer Member), Chairman  
LINN E. MAGOFFIN (Producer Member), Vice Chairman  
HARRY C. WILLS (Producer Member), Secretary  
BOYD KERN (Public Member), Treasurer  
WALKER HANNON (Producer Member)  
BURTON E. JONES (Public Member)  
D. J. LAUGHLIN (Producer Member)  
M. E. MOSLEY (Producer Member)  
CONRAD T. REIBOLD (Public Member)

STAFF

Carl Fossette, Assistant Secretary-Assistant Treasurer  
Ralph B. Helm, Attorney  
Thomas M. Stetson, Engineer

FOR CALENDAR YEAR 1976

ROBERT T. BALCH (Producer Member), Chairman  
LINN E. MAGOFFIN (Producer Member), Vice Chairman  
HARRY C. WILLS (Producer Member), Secretary  
BOYD KERN (Public Member), Treasurer  
WALKER HANNON (Producer Member)  
BURTON E. JONES (Public Member)  
D. J. LAUGHLIN (Producer Member)  
M. E. MOSLEY (Producer Member)  
CONRAD T. REIBOLD (Public Member)

STAFF

Jane M. Bray, Assistant Secretary-Assistant Treasurer  
Ralph B. Helm, Attorney  
Thomas M. Stetson, Engineer

FOR CALENDAR YEAR 1977

ROBERT T. BALCH (Producer Member), Chairman  
LINN E. MAGOFFIN (Producer Member), Vice Chairman  
HARRY C. WILLS (Producer Member), Secretary  
CONRAD T. REIBOLD (Public Member), Treasurer  
WALKER HANNON (Producer Member)  
BURTON E. JONES (Public Member)  
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D. J. LAUGHLIN (Producer Member)  
R. H. NICHOLSON, JR. (Producer Member)

STAFF

Jane M. Bray, Assistant Secretary-Assistant Treasurer)  
Ralph B. Helm, Attorney  
Thomas M. Stetson, Engineer

FOR CALENDAR YEAR 1978

ROBERT T. BALCH (Producer Member), Chairman  
LINN E. MAGOFFIN (Producer Member), Vice Chairman  
D. J. LAUGHLIN (Producer Member), Secretary  
CONRAD T. REIBOLD (Public Member), Treasurer  
WALKER HANNON (Producer Member)  
BURTON E. JONES (Public Member)  
L. E. MOELLER (Producer Member)  
R. H. NICHOLSON, JR. (Producer Member)  
WILLIAM M. WHITESIDE (Public Member)

STAFF

Jane M. Bray, Assistant Secretary-Assistant Treasurer  
Ralph B. Helm, Attorney  
Thomas M. Stetson, Engineer

FOR CALENDAR YEAR 1979

LINN E. MAGOFFIN (Producer Member), Chairman  
D. J. LAUGHLIN (Producer Member), Vice Chairman  
R. H. NICHOLSON, JR. (Producer Member), Secretary  
CONRAD T. REIBOLD (Public Member), Treasurer  
WALKER HANNON (Producer Member)  
BURTON E. JONES (Public Member)  
L. E. MOELLER (Producer Member)  
WILLIAM M. WHITESIDE (Public Member)

STAFF

Jane M. Bray, Assistant Secretary-Assistant Treasurer  
Ralph B. Helm, Attorney  
Thomas M. Stetson, Engineer

FOR CALENDAR YEAR 1980

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R. H. NICHOLSON, JR. (Producer Member), Vice Chairman  
WILLIAM M. WHITESIDE (Public Member), Secretary  
CONRAD T. REIBOLD (Public Member), Treasurer  
ROBERT T. BALCH (Producer Member)  
ROBERT G. BERLIEN (Producer Member)  
ANTON C. GARNIER (Producer Member)  
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L. E. MOELLER (Producer Member)

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Ralph B. Helm, Attorney  
Thomas M. Stetson. Engineer

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STAFF

Jane M. Bray, Assistant Secretary-Assistant Treasurer  
Ralph B. Helm, Attorney  
Thomas M. Stetson, Engineer

FOR CALENDAR YEAR 1982

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WILLIAM M. WHITESIDE (Public Member), Secretary  
CONRAD T. REIBOLD (Public Member), Treasurer  
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ALFRED F. WITTIG (Public Member)

STAFF

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Ralph B. Helm, Attorney  
Thomas M. Stetson, Engineer

FOR CALENDAR YEAR 1983

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ROBERT G. BERLIEN (Producer Member), Secretary  
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ANTON C. GARNIER (Producer Member)  
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ALFRED R. WITTIG (Public Member)

STAFF

Jane M. Bray, Assistant Secretary-Assistant Treasurer  
Ralph B. Helm, Attorney  
Thomas M. Stetson, Engineer

FOR CALENDAR YEAR 1984

LINN E. MAGOFFIN (Producer Member), Chairman  
R. H. NICHOLSON, JR. (Producer Member), Vice Chairman  
ROBERT G. BERLIEN (Producer Member), Secretary  
CONRAD T. REIBOLD (Public Member), Treasurer  
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ALFRED R. WITTIG (Public Member)

STAFF

Jane M. Bray, Assistant Secretary-Assistant Treasurer  
Ralph B. Helm, Attorney  
Thomas M. Stetson, Engineer

FOR CALENDAR YEAR 1985

LINN E. MAGOFFIN (Producer Member), Chairman  
R. H. NICHOLSON, JR. (Producer Member), Vice Chairman  
ROBERT G. BERLIEN (Producer Member), Secretary  
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ALFRED R. WITTIG (Public Member)

STAFF

Jane M. Bray, Assistant Secretary-Assistant Treasurer  
Ralph B. Helm, Attorney  
Thomas M. Stetson, Engineer

FOR CALENDAR YEAR 1986

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R. H. NICHOLSON, JR. (Producer Member), Vice Chairman  
ROBERT G. BERLIEN (Producer Member), Secretary  
CONRAD T. REIBOLD (Public Member), Treasurer  
ROBERT T. BALCH (Producer Member)  
DONALD F. CLARK (Public Member)  
L. E. MOELLER (Producer Member)  
REGINOLD A. STONE (Producer Member)  
ALFRED R. WITTIG (Public Member)

STAFF

Jane M. Bray, Assistant Secretary-Assistant Treasurer  
Ralph B. Helm, Attorney  
Thomas M. Stetson, Engineer

FOR CALENDAR YEAR 1987

LINN E. MAGOFFIN (Producer Member), Chairman  
REGINALD A. STONE (Producer Member), Vice Chairman  
L. E. MOELLER (Producer Member), Secretary  
ALFRED R. WITTIG (Public Member), Treasurer  
ROBERT T. BALCH (Producer Member)  
GERALD J. BLACK (Producer Member)  
DONALD F. CLARK (Public Member)  
EDWARD R. HECK (Producer Member)  
JOHN E. MAULDING (Public Member)

STAFF

Robert G. Berlien, Assistant Secretary-Assistant Treasurer  
Ralph B. Helm, Attorney  
Thomas M. Stetson, Engineer

FOR CALENDAR YEAR 1988

LINN E. MAGOFFIN (Producer Member), Chairman  
REGINALD A. STONE (Producer Member), Vice Chairman  
L. E. MOELLER (Producer Member), Secretary  
ALFRED R. WITTIG (Public Member), Treasurer  
ROBERT T. BALCH (Producer Member)  
GERALD J. BLACK (Producer Member)  
DONALD F. CLARK (Public Member)  
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STAFF

Robert G. Berlien, Assistant Secretary-Assistant Treasurer  
Ralph B. Helm, Attorney  
Thomas M. Stetson, Engineer

FOR CALENDAR YEAR 1989

LINN E. MAGOFFIN (Producer Member), Chairman  
REGINALD A. STONE (Producer Member), Vice Chairman  
GERALD G. BLACK (Producer Member), Secretary  
ALFRED R. WITTIG (Public Member), Treasurer  
ROBERT T. BALCH (Producer Member) \*  
DONALD F. CLARK (Public Member)  
EDWARD R. HECK (Producer Member)  
BURTON E. JONES (Public Member)  
NELS PALM (Producer Member) \*\*  
THOMAS E. SCHOLLENBERGER (Producer Member)

STAFF

Robert G. Berlien, Assistant Secretary-Assistant Treasurer  
Ralph B. Helm, Attorney  
Thomas M. Stetson, Engineer

\* DECEASED APRIL 25, 1989

\*\* Appointed August 24, 1989, for the balance of the calendar year term, to replace deceased member, Robert T. Balch.

## Appendix G

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### Summary of Population Based on Census Data



**Urban Water Management Plan**

## South Arcadia System

**Appendix G-1: Census Tracts within the South Arcadia System**

County	Subregion	City	Census Tract	Percentage of Tract in System
Los Angeles	San Gabriel Valley Assoc. of Cities	Irwindale city	404600	2%
Los Angeles	San Gabriel Valley Assoc. of Cities	Arcadia city	430802	6%
Los Angeles	San Gabriel Valley Assoc. of Cities	Arcadia city	430803	5%
Los Angeles	San Gabriel Valley Assoc. of Cities	Unincorporated	431100	3%
Los Angeles	San Gabriel Valley Assoc. of Cities	Unincorporated	431200	37%
Los Angeles	San Gabriel Valley Assoc. of Cities	Arcadia city	431300	100%
Los Angeles	San Gabriel Valley Assoc. of Cities	Unincorporated	431300	100%
Los Angeles	San Gabriel Valley Assoc. of Cities	Unincorporated	431400	100%
Los Angeles	San Gabriel Valley Assoc. of Cities	El Monte city	431500	100%
Los Angeles	San Gabriel Valley Assoc. of Cities	Temple City city	431500	100%
Los Angeles	San Gabriel Valley Assoc. of Cities	Unincorporated	431500	100%
Los Angeles	San Gabriel Valley Assoc. of Cities	Temple City city	432000	8%
Los Angeles	San Gabriel Valley Assoc. of Cities	El Monte city	432101	100%
Los Angeles	San Gabriel Valley Assoc. of Cities	Temple City city	432101	92%
Los Angeles	San Gabriel Valley Assoc. of Cities	Temple City city	432102	80%
Los Angeles	San Gabriel Valley Assoc. of Cities	El Monte city	432300	60%
Los Angeles	San Gabriel Valley Assoc. of Cities	Temple City city	481201	63%

Urban Water Management Plan

South Arcadia System

Table G-2: Population, Household and Employment Projections for South Arcadia System

Census Tract	County	Subregion	City	Population						Percentage of Tract in System	
				2005	2010	2015	2020	2025	2030		2035
404600	Los Angeles	San Gabriel Valley Assoc. of Cities	Irwindale city	1,526	1,774	1,982	2,190	2,394	2,591	2,780	2%
430802	Los Angeles	San Gabriel Valley Assoc. of Cities	Arcadia city	4,304	4,449	4,554	4,665	4,772	4,876	4,974	6%
430803	Los Angeles	San Gabriel Valley Assoc. of Cities	Arcadia city	5,531	5,711	5,842	5,982	6,116	6,246	6,370	5%
431100	Los Angeles	San Gabriel Valley Assoc. of Cities	Unincorporated	674	766	875	994	1,109	1,220	1,327	3%
431200	Los Angeles	San Gabriel Valley Assoc. of Cities	Unincorporated	6,494	6,811	7,168	7,499	7,820	8,131	8,428	37%
431300	Los Angeles	San Gabriel Valley Assoc. of Cities	Arcadia city	381	419	446	473	498	523	547	100%
431300	Los Angeles	San Gabriel Valley Assoc. of Cities	Unincorporated	1,711	1,791	1,886	1,986	2,083	2,177	2,267	100%
431400	Los Angeles	San Gabriel Valley Assoc. of Cities	Unincorporated	3,774	3,976	4,206	4,431	4,648	4,858	5,060	100%
431500	Los Angeles	San Gabriel Valley Assoc. of Cities	El Monte city	988	1,046	1,110	1,187	1,262	1,334	1,401	100%
431500	Los Angeles	San Gabriel Valley Assoc. of Cities	Temple City city	3,814	3,918	4,019	4,122	4,221	4,315	4,406	100%
431500	Los Angeles	San Gabriel Valley Assoc. of Cities	Unincorporated	4,087	4,310	4,567	4,825	5,075	5,318	5,550	100%
432000	Los Angeles	San Gabriel Valley Assoc. of Cities	Temple City city	7,819	7,964	8,106	8,259	8,407	8,548	8,684	8%
432101	Los Angeles	San Gabriel Valley Assoc. of Cities	El Monte city	35	62	89	112	134	155	175	100%
432101	Los Angeles	San Gabriel Valley Assoc. of Cities	Temple City city	4,249	4,300	4,353	4,417	4,478	4,536	4,592	92%
432102	Los Angeles	San Gabriel Valley Assoc. of Cities	Temple City city	5,581	5,646	5,714	5,795	5,873	5,948	6,020	80%
432300	Los Angeles	San Gabriel Valley Assoc. of Cities	El Monte city	4,187	4,344	4,504	4,654	4,801	4,942	5,072	60%
481201	Los Angeles	San Gabriel Valley Assoc. of Cities	Temple City city	3,399	3,461	3,524	3,592	3,657	3,719	3,778	63%
Total Population Based on SCAG				31,431	32,550	33,753	34,979	36,163	37,305	38,395	
SCAG Growth Rate						4%	4%	3%	3%	3%	

Census Tract	County	Subregion	City	Households						Percentage of Tract in System	
				2005	2010	2015	2020	2025	2030		2035
404600	Los Angeles	San Gabriel Valley Assoc. of Cities	Irwindale city	368	407	443	481	511	540	564	2%
430802	Los Angeles	San Gabriel Valley Assoc. of Cities	Arcadia city	1,343	1,391	1,434	1,480	1,516	1,550	1,579	6%
430803	Los Angeles	San Gabriel Valley Assoc. of Cities	Arcadia city	1,782	1,845	1,903	1,965	2,013	2,059	2,097	5%
431100	Los Angeles	San Gabriel Valley Assoc. of Cities	Unincorporated	152	172	199	229	253	275	294	3%
431200	Los Angeles	San Gabriel Valley Assoc. of Cities	Unincorporated	1,453	1,529	1,628	1,733	1,815	1,894	1,959	37%
431300	Los Angeles	San Gabriel Valley Assoc. of Cities	Arcadia city	118	122	126	130	133	137	139	100%
431300	Los Angeles	San Gabriel Valley Assoc. of Cities	Unincorporated	560	594	639	689	727	765	796	100%
431400	Los Angeles	San Gabriel Valley Assoc. of Cities	Unincorporated	1,353	1,430	1,532	1,639	1,722	1,803	1,869	100%
431500	Los Angeles	San Gabriel Valley Assoc. of Cities	El Monte city	332	352	380	413	440	465	484	100%
431500	Los Angeles	San Gabriel Valley Assoc. of Cities	Temple City city	1,257	1,283	1,318	1,355	1,384	1,412	1,435	100%
431500	Los Angeles	San Gabriel Valley Assoc. of Cities	Unincorporated	1,344	1,424	1,529	1,640	1,726	1,812	1,879	100%
432000	Los Angeles	San Gabriel Valley Assoc. of Cities	Temple City city	2,491	2,544	2,613	2,685	2,741	2,796	2,841	8%
432101	Los Angeles	San Gabriel Valley Assoc. of Cities	El Monte city	6	7	7	8	9	9	10	100%
432101	Los Angeles	San Gabriel Valley Assoc. of Cities	Temple City city	1,339	1,367	1,403	1,442	1,472	1,501	1,525	92%
432102	Los Angeles	San Gabriel Valley Assoc. of Cities	Temple City city	1,743	1,780	1,828	1,878	1,916	1,953	1,984	80%
432300	Los Angeles	San Gabriel Valley Assoc. of Cities	El Monte city	1,165	1,201	1,248	1,295	1,331	1,366	1,393	60%
481201	Los Angeles	San Gabriel Valley Assoc. of Cities	Temple City city	1,135	1,160	1,192	1,226	1,253	1,279	1,300	63%
Total Population Based on SCAG				9,929	10,303	10,791	11,312	11,716	10,764	12,429	
SCAG Growth Rate						5%	5%	4%	-8%	15%	

Urban Water Management Plan  
South Arcadia System

Table G-2: Population, Household and Employment Projections for South Arcadia System

Census Tract	County	Subregion	City	Employment							Percentage of Tract in System
				2005	2010	2015	2020	2025	2030	2035	
404600	Los Angeles	San Gabriel Valley Assoc. of Cities	Irwindale city	13,367	13,543	13,684	13,774	13,880	13,993	14,100	2%
430802	Los Angeles	San Gabriel Valley Assoc. of Cities	Arcadia city	670	696	717	731	747	764	781	6%
430803	Los Angeles	San Gabriel Valley Assoc. of Cities	Arcadia city	893	936	970	992	1,017	1,045	1,071	5%
431100	Los Angeles	San Gabriel Valley Assoc. of Cities	Unincorporated	0	0	0	0	0	0	0	3%
431200	Los Angeles	San Gabriel Valley Assoc. of Cities	Unincorporated	633	653	668	676	686	696	706	37%
431300	Los Angeles	San Gabriel Valley Assoc. of Cities	Arcadia city	0	0	0	0	0	0	0	100%
431300	Los Angeles	San Gabriel Valley Assoc. of Cities	Monrovia city	147	163	175	181	188	196	203	100%
431400	Los Angeles	San Gabriel Valley Assoc. of Cities	Monrovia city	155	165	172	176	181	185	190	100%
431500	Los Angeles	San Gabriel Valley Assoc. of Cities	El Monte city	945	984	1,013	1,031	1,051	1,073	1,093	100%
431500	Los Angeles	San Gabriel Valley Assoc. of Cities	El Monte city	254	262	269	274	279	285	291	100%
431500	Los Angeles	San Gabriel Valley Assoc. of Cities	Unincorporated	945	814	833	844	856	870	883	100%
432000	Los Angeles	San Gabriel Valley Assoc. of Cities	Temple City city	1,408	1,456	1,493	1,517	1,544	1,574	1,602	8%
432101	Los Angeles	San Gabriel Valley Assoc. of Cities	El Monte city	80	84	86	88	90	92	94	100%
432101	Los Angeles	San Gabriel Valley Assoc. of Cities	Temple City city	204	211	216	220	225	230	235	92%
432102	Los Angeles	San Gabriel Valley Assoc. of Cities	Temple City city	492	535	570	594	623	654	683	80%
432300	Los Angeles	San Gabriel Valley Assoc. of Cities	El Monte city	5,465	5,533	5,588	5,622	5,663	5,706	5,747	60%
481201	Los Angeles	San Gabriel Valley Assoc. of Cities	Temple City city	1,373	1,403	1,426	1,440	1,457	1,475	1,492	63%
Total Population Based on SCAG				7,950	8,015	8,186	8,292	8,417	8,550	8,677	
SCAG Growth Rate						2%	1%	1%	2%	1%	



## Appendix H

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Documentation of submittal to Library, Cities and Counties





# Golden State Water Company

A Subsidiary of American States Water Company

September 1, 2011

City of Arcadia  
Philip A. Wray  
City Engineer  
P.O. Box 60021  
240 W. Huntington Drive  
Arcadia, CA 91006

Dear: Philip A. Wray

**RE: Golden State Water Company- 2010 Urban Water Management Plan**

Golden State Water Company (GSWC) adopted the 2010 Urban Water Management Plan (UWMP) following a public hearing on August 18, 2011. The 2010 UWMP was adopted in accordance with the Urban Water Management Planning Act and filed with DWR and the California State Library.

Pursuant to Section 10644(a) of the California Water Code, GSWC is required to file a copy of the adopted 2010 UWMP with any city or county within which GSWC provided water. Enclosed for your files is one copy of GSWC's adopted 2010 UWMP. It is also on our website at [www.gswater.com](http://www.gswater.com).

If you have any questions you can contact me at (916) 853-3612.

Sincerely,  
GOLDEN STATE WATER COMPANY

Ernest A. Gisler  
Planning Manager

Enclosure



**Golden State  
Water Company**

A Subsidiary of American States Water Company

September 1, 2011

City of El Monte  
James Troyer  
Planning Services Manager  
11333 Valley Blvd.  
El Monte, CA 91732

Dear: James Troyer

**RE: Golden State Water Company- 2010 Urban Water Management Plan**

Golden State Water Company (GSWC) adopted the 2010 Urban Water Management Plan (UWMP) following a public hearing on August 18, 2011. The 2010 UWMP was adopted in accordance with the Urban Water Management Planning Act and filed with DWR and the California State Library.

Pursuant to Section 10644(a) of the California Water Code, GSWC is required to file a copy of the adopted 2010 UWMP with any city or county within which GSWC provided water. Enclosed for your files is one copy of GSWC's adopted 2010 UWMP. It is also on our website at [www.gswater.com](http://www.gswater.com).

If you have any questions you can contact me at (916) 853-3612.

Sincerely,  
GOLDEN STATE WATER COMPANY

Ernest A. Gisler  
Planning Manager

Enclosure



**Golden State  
Water Company**

A Subsidiary of American States Water Company

September 1, 2011

City of Irwindale  
Tonya Pace  
Director of Planning  
5050 North Irwindale Avenue  
Irwindale, CA 91706

Dear: Tonya Pace

**RE: Golden State Water Company- 2010 Urban Water Management Plan**

Golden State Water Company (GSWC) adopted the 2010 Urban Water Management Plan (UWMP) following a public hearing on August 18, 2011. The 2010 UWMP was adopted in accordance with the Urban Water Management Planning Act and filed with DWR and the California State Library.

Pursuant to Section 10644(a) of the California Water Code, GSWC is required to file a copy of the adopted 2010 UWMP with any city or county within which GSWC provided water. Enclosed for your files is one copy of GSWC's adopted 2010 UWMP. It is also on our website at [www.gswater.com](http://www.gswater.com).

If you have any questions you can contact me at (916) 853-3612.

Sincerely,  
GOLDEN STATE WATER COMPANY

Ernest A. Gisler  
Planning Manager

Enclosure



**Golden State  
Water Company**

A Subsidiary of American States Water Company

September 1, 2011

City of Monrovia  
Alice Griselle  
Community Development Director  
415 South Ivy Avenue  
Monrovia, CA 91016

Dear: Alice Griselle

**RE: Golden State Water Company- 2010 Urban Water Management Plan**

Golden State Water Company (GSWC) adopted the 2010 Urban Water Management Plan (UWMP) following a public hearing on August 18, 2011. The 2010 UWMP was adopted in accordance with the Urban Water Management Planning Act and filed with DWR and the California State Library.

Pursuant to Section 10644(a) of the California Water Code, GSWC is required to file a copy of the adopted 2010 UWMP with any city or county within which GSWC provided water. Enclosed for your files is one copy of GSWC's adopted 2010 UWMP. It is also on our website at [www.gswater.com](http://www.gswater.com).

If you have any questions you can contact me at (916) 853-3612.

Sincerely,  
GOLDEN STATE WATER COMPANY

Ernest A. Gisler  
Planning Manager

Enclosure



# Golden State Water Company

A Subsidiary of American States Water Company

September 1, 2011

City of Temple City  
Joseph Lambert  
Community Development Director  
9701 Las Tunas Drive  
Temple City, CA 91780

Dear: Joseph Lambert

## **RE: Golden State Water Company- 2010 Urban Water Management Plan**

Golden State Water Company (GSWC) adopted the 2010 Urban Water Management Plan (UWMP) following a public hearing on August 18, 2011. The 2010 UWMP was adopted in accordance with the Urban Water Management Planning Act and filed with DWR and the California State Library.

Pursuant to Section 10644(a) of the California Water Code, GSWC is required to file a copy of the adopted 2010 UWMP with any city or county within which GSWC provided water. Enclosed for your files is one copy of GSWC's adopted 2010 UWMP. It is also on our website at [www.gswater.com](http://www.gswater.com).

If you have any questions you can contact me at (916) 853-3612.

Sincerely,  
GOLDEN STATE WATER COMPANY

Ernest A. Gisler  
Planning Manager

Enclosure



**Golden State  
Water Company**

A Subsidiary of American States Water Company

September 1, 2011

County of Los Angeles  
Richard Brudckner  
Director Department of Regional Planning  
320 West Temple Street  
Los Angeles, CA 90012

Dear: Richard Brudckner

**RE: Golden State Water Company- 2010 Urban Water Management Plan**

Golden State Water Company (GSWC) adopted the 2010 Urban Water Management Plan (UWMP) following a public hearing on August 18, 2011. The 2010 UWMP was adopted in accordance with the Urban Water Management Planning Act and filed with DWR and the California State Library.

Pursuant to Section 10644(a) of the California Water Code, GSWC is required to file a copy of the adopted 2010 UWMP with any city or county within which GSWC provided water. Enclosed for your files is one copy of GSWC's adopted 2010 UWMP. It is also on our website at [www.gswater.com](http://www.gswater.com).

If you have any questions you can contact me at (916) 853-3612.

Sincerely,  
GOLDEN STATE WATER COMPANY

Ernest A. Gisler  
Planning Manager

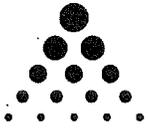
Enclosure

# Appendix I

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## Documentation of Water Use Projections Submittal





**Golden State**  
**Water Company**  
A Subsidiary of American States Water Company

11 February 2011

Mr. Steve Sherman  
Field Operations Superintendent  
Covina Irrigating Company  
146 E College Street  
Covina, CA 91723

Subject: Golden State Water Company - Claremont, San Dimas, South Arcadia, and South San Gabriel System  
2010 Urban Water Management Plan Preparation Notification and Supply Reliability Information Request

Dear Mr. Sherman:

Golden State Water Company (GSWC) is currently preparing its 2010 Urban Water Management Plan (UWMP) for the Claremont, San Dimas, South Arcadia, and South San Gabriel System as required by the Urban Water Management Planning Act (Act). Since Covina Irrigating Company is a wholesale water supplier to GSWC, water use projections through 2035 are enclosed (Table 1) pursuant to §10631(k) of the Act. We would like to request confirmation of the anticipated water supply reliability, water supply sources, and other information as described below. This information may be provided by either (a) providing a copy of your Draft UWMP if all requested information is included or, (b) completing the enclosed tables and providing any additional documents as required.

1. Supply projections to 2035 (Table 2)
2. Single Dry Year Reliability to 2035 (Table 3)
3. Normal, single dry, and multiple dry year reliability (Table 4)
4. Basis of water year data (Table 5)
5. Factors resulting in inconsistency of supply (Table 6)
6. Assumptions used to determine retail agency supply projections, including conservation.
7. Recycled water projections to the Claremont, San Dimas, South Arcadia, and South San Gabriel service area (if applicable) (Table 7)
8. Describe any regional desalination opportunities, if any for the Claremont, San Dimas, South Arcadia, and South San Gabriel system (if applicable)

We appreciate your timely attention to the information requested above and ask you provide a response no later than **18 February 2011**. Kennedy/Jenks Consultants is assisting GSWC with preparation of the 2010 UWMP and will be contacting you directly within the next week to follow up on this request. In the meantime, should you have any questions or concerns please feel free to contact me at (916) 853-3612.

Very truly yours,

GOLDEN STATE WATER COMPANY

Ernest Gisler  
Planning Manager

Enclosures

cc: Sean Maguire, Kennedy/Jenks Consultants

3035 Prospect Park Drive, Ste. 60, Rancho Cordova, CA 95670  
Tel: (916) 853-3600 Fax: (916) 852-0171 www.aswater.com



## Appendix J

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### Urban Water Management Plan Checklist



**Table I-2 Urban Water Management Plan checklist, organized by subject**

No.	UWMP requirement <sup>a</sup>	Callif. Water Code reference	Additional clarification	UWMP location	Page Number
<b>PLAN PREPARATION</b>					
4	Coordinate the preparation of its plan with other appropriate agencies in the area, including other water suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable.	10620(c)(2)		1.6	1-7
6	Notify, at least 60 days prior to the public hearing on the plan required by Section 10642, any city or county within which the supplier provides water that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan. Any city or county receiving the notice may be consulted and provide comments.	10621(b)		1.6	1-7
7	Provide supporting documentation that the UWMP or any amendments to, or changes in, have been adopted as described in Section 10640 et seq.	10621(c)		1.6	1-7
54	Provide supporting documentation that the urban water management plan has been or will be provided to any city or county within which it provides water, no later than 60 days after the submission of this urban water management plan.	10635(b)	Appendix H		
55	Provide supporting documentation that the water supplier has encouraged active involvement of diverse social, cultural, and economic elements of the population within the service area prior to and during the preparation of the plan.	10642		1.6	1-7
56	Provide supporting documentation that the urban water supplier made the plan available for public inspection and held a public hearing about the plan. For public agencies, the hearing notice is to be provided pursuant to Section 6066 of the Government Code. The water supplier is to provide the time and place of the hearing to any city or county within which the supplier provides water. Privately-owned water suppliers shall provide an equivalent notice within its service area.	10642		Page vii	Vii
57	Provide supporting documentation that the plan has been adopted as prepared or modified.	10642		1.6	1-7
58	Provide supporting documentation as to how the water supplier plans to implement its plan.	10643		1.8	1-8

No.	UWMP requirement <sup>a</sup>	Calif. Water Code reference	Additional clarification	UWMP location	Page Number
59	Provide supporting documentation that, in addition to submittal to DWR, the urban water supplier has submitted this UWMP to the California State Library and any city or county within which the supplier provides water supplies a copy of its plan no later than 30 days after adoption. This also includes amendments or changes.	10644(a)		1.7 Appendix K	1-8
60	Provide supporting documentation that, not later than 30 days after filing a copy of its plan with the department, the urban water supplier has or will make the plan available for public review during normal business hours	10645		1.7	1-8
<b>SYSTEM DESCRIPTION</b>					
8	Describe the water supplier service area.	10631(a)		2.1	2-1
9	Describe the climate and other demographic factors of the service area of the supplier	10631(a)		2.2 & 2.4	2-1 & 2-10
10	Indicate the current population of the service area	10631(a)	Provide the most recent population data possible. Use the method described in "Baseline Daily Per Capita Water Use." See Section M.	2.3	2-5
11	Provide population projections for 2015, 2020, 2025, and 2030, based on data from State, regional, or local service area population projections.	10631(a)	2035 and 2040 can also be provided to support consistency with Water Supply Assessments and Written Verification of Water Supply documents.	2.3.2	2-5
12	Describe other demographic factors affecting the supplier's water management planning.	10631(a)		2.2 & 2.4	2-1 & 2-10
<b>SYSTEM DEMANDS</b>					
1	Provide baseline daily per capita water use, urban water use target, interim urban water use target, and compliance daily per capita water use, along with the bases for determining those estimates, including references to supporting data.	10608.20(e)		3.2	3-3

No.	UWMP requirement <sup>a</sup>	Calif. Water Code reference	Additional clarification	UWMP location	Page Number
2	<i>Wholesalers:</i> Include an assessment of present and proposed future measures, programs, and policies to help achieve the water use reductions. <i>Retailers:</i> Conduct at least one public hearing that includes general discussion of the urban retail water supplier's implementation plan for complying with the Water Conservation Bill of 2009.	10608.36 10608.26(a)	Retailers and wholesalers have slightly different requirements	4.6	4-8
3	Report progress in meeting urban water use targets using the standardized form.	10608.40		Not Applicable	
25	Quantify past, current, and projected water use, identifying the uses among water use sectors, for the following: (A) single-family residential, (B) multifamily, (C) commercial, (D) industrial, (E) institutional and governmental, (F) landscape, (G) sales to other agencies, (H) saline water intrusion barriers, groundwater recharge, conjunctive use, and (I) agriculture.	10631(e)(1)	Consider 'past' to be 2005, present to be 2010, and projected to be 2015, 2020, 2025, and 2030. Provide numbers for each category for each of these years.	3.3	3-8
33	Provide documentation that either the retail agency provided the wholesale agency with water use projections for at least 20 years, if the UWMP agency is a retail agency, OR, if a wholesale agency, it provided its urban retail customers with future planned and existing water source available to it from the wholesale agency during the required water-year types	10631(k)	Average year, single dry year, multiple dry years for 2015, 2020, 2025, and 2030.	3.7 & Appendix I	3-15
34	Include projected water use for single-family and multifamily residential housing needed for lower income households, as identified in the housing element of any city, county, or city and county in the service area of the supplier.	10631.1(a)		3.8	3-15
<b>SYSTEM SUPPLIES</b>					
13	Identify and quantify the existing and planned sources of water available for 2015, 2020, 2025, and 2030.	10631(b)	The 'existing' water sources should be for the same year as the "current population" in line 10. 2035 and 2040 can also be provided.	4.1	4-2

No.	UWMP requirement <sup>a</sup>	Calif. Water Code reference	Additional clarification	UWMP location	Page Number
14	Indicate whether groundwater is an existing or planned source of water available to the supplier. If yes, then complete 15 through 21 of the UWMP Checklist. If no, then indicate "not applicable" in lines 15 through 21 under the UWMP location column.	10631(b)	Source classifications are: surface water, groundwater, recycled water, storm water, desalinated sea water, desalinated brackish groundwater, and other.	4.3	4-3
15	Indicate whether a groundwater management plan been adopted by the water supplier or if there is any other specific authorization for groundwater management. Include a copy of the plan or authorization.	10631(b)(1)		4.3	4-3
16	Describe the groundwater basin.	10631(b)(2)		4.3	4-3
17	Indicate whether the groundwater basin is adjudicated? Include a copy of the court order or decree.	10631(b)(2)		4.3 & Appendix F	4-3
18	Describe the amount of groundwater the urban water supplier has the legal right to pump under the order or decree. If the basin is not adjudicated, indicate "not applicable" in the UWMP location column.	10631(b)(2)		4.3	4-3
19	For groundwater basins that are not adjudicated, provide information as to whether DWR has identified the basin or basins as overdrafted or has projected that the basin will become overdrafted if present management conditions continue, in the most current official departmental bulletin that characterizes the condition of the groundwater basin, and a detailed description of the efforts being undertaken by the urban water supplier to eliminate the long-term overdraft condition. If the basin is adjudicated, indicate "not applicable" in the UWMP location column.	10631(b)(2)		Not Applicable	
20	Provide a detailed description and analysis of the location, amount, and sufficiency of groundwater pumped by the urban water supplier for the past five years	10631(b)(3)		4.3	4-3
21	Provide a detailed description and analysis of the amount and location of groundwater that is projected to be pumped.	10631(b)(4)	Provide projections for 2015, 2020, 2025, and 2030.	4.3	4-3
24	Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis.	10631(d)		4.4	4-7

No.	UWMP requirement <sup>a</sup>	Calif. Water Code reference	Additional clarification	UWMP location	Page Number
30	Include a detailed description of all water supply projects and programs that may be undertaken by the water supplier to address water supply reliability in average, single-dry, and multiple-dry years, excluding demand management programs addressed in (f)(1). Include specific projects, describe water supply impacts, and provide a timeline for each project.	10631(h)		4.5	4-7
31	Describe desalinated water project opportunities for long-term supply, including, but not limited to, ocean water, brackish water, and groundwater.	10631(i)		4.7	4-9
44	Provide information on recycled water and its potential for use as a water source in the service area of the urban water supplier. Coordinate with local water, wastewater, groundwater, and planning agencies that operate within the supplier's service area.	10633		4.8	4-9
45	Describe the wastewater collection and treatment systems in the supplier's service area, including a quantification of the amount of wastewater collected and treated and the methods of wastewater disposal.	10633(a)		4.8.2	4-10
46	Describe the quantity of treated wastewater that meets recycled water standards, is being discharged, and is otherwise available for use in a recycled water project.	10633(b)		4.8.2	4-10
47	Describe the recycled water currently being used in the supplier's service area, including, but not limited to, the type, place, and quantity of use.	10633(c)		4.8.2	4-10
48	Describe and quantify the potential uses of recycled water, including, but not limited to, agricultural irrigation, landscape irrigation, wildlife habitat enhancement, wetlands, industrial reuse, groundwater recharge, indirect potable reuse, and other appropriate uses, and a determination with regard to the technical and economic feasibility of serving those uses.	10633(d)		4.8.3	4-12
49	The projected use of recycled water within the supplier's service area at the end of 5, 10, 15, and 20 years, and a description of the actual use of recycled water in comparison to uses previously projected.	10633(e)		4.8	4-9
50	Describe the actions, including financial incentives, which may be taken to encourage the use of recycled water, and the projected results of these actions in terms of acre-feet of recycled water used per year.	10633(f)		4.8.4	4-13

No.	UWMP requirement <sup>a</sup>	Calif. Water Code reference	Additional clarification	UWMP location	Page Number
51	Provide a plan for optimizing the use of recycled water in the supplier's service area, including actions to facilitate the installation of dual distribution systems, to promote recirculating uses, to facilitate the increased use of treated wastewater that meets recycled water standards, and to overcome any obstacles to achieving that increased use.	10633(g)		4.8.4	4-13
<b>WATER SHORTAGE RELIABILITY AND WATER SHORTAGE CONTINGENCY PLANNING <sup>p</sup></b>					
5	Describe water management tools and options to maximize resources and minimize the need to import water from other regions.	10620(f)		1.10	1-10
22	Describe the reliability of the water supply and vulnerability to seasonal or climatic shortage and provide data for (A) an average water year, (B) a single dry water year, and (C) multiple dry water years.	10631(c)(1)		6.1	6-1
23	For any water source that may not be available at a consistent level of use - given specific legal, environmental, water quality, or climatic factors - describe plans to supplement or replace that source with alternative sources or water demand management measures, to the extent practicable.	10631(c)(2)		6.1.4	6-6
35	Provide an urban water shortage contingency analysis that specifies stages of action, including up to a 50-percent water supply reduction, and an outline of specific water supply conditions at each stage	10632(a)		8.1	8-1
36	Provide an estimate of the minimum water supply available during each of the next three water years based on the driest three-year historic sequence for the agency's water supply.	10632(b)		8.2	8-3
37	Identify actions to be undertaken by the urban water supplier to prepare for, and implement during, a catastrophic interruption of water supplies including, but not limited to, a regional power outage, an earthquake, or other disaster.	10632(c)		8.3	8-4
38	Identify additional, mandatory prohibitions against specific water use practices during water shortages, including, but not limited to, prohibiting the use of potable water for street cleaning.	10632(d)		8.4	8-6
39	Specify consumption reduction methods in the most restrictive stages. Each urban water supplier may use any type of consumption reduction methods in its water shortage contingency analysis that would reduce water use, are appropriate for its area, and have the ability to achieve a water use reduction consistent with up to a 50 percent reduction in water supply.	10632(e)		8.4	8-6
40	Indicated penalties or charges for excessive use, where applicable.	10632(f)		8.4	8-6

No.	UWMP requirement <sup>a</sup>	Calif. Water Code reference	Additional clarification	UWMP location	Page Number
41	Provide an analysis of the impacts of each of the actions and conditions described in subdivisions (a) to (f), inclusive, on the revenues and expenditures of the urban water supplier, and proposed measures to overcome those impacts, such as the development of reserves and rate adjustments.	10632(g)		8.5	8-8
42	Provide a draft water shortage contingency resolution or ordinance.	10632(h)		8.4 & Appendix D	8-6
43	Indicate a mechanism for determining actual reductions in water use pursuant to the urban water shortage contingency analysis.	10632(i)		8.6	8-10
52	Provide information, to the extent practicable, relating to the quality of existing sources of water available to the supplier over the same five-year increments, and the manner in which water quality affects water management strategies and supply reliability	10634	For years 2010, 2015, 2020, 2025, and 2030	5-1	5-1
53	Assess the water supply reliability during normal, dry, and multiple dry water years by comparing the total water supply sources available to the water supplier with the total projected water use over the next 20 years, in five-year increments, for a normal water year, a single dry water year, and multiple dry water years. Base the assessment on the information compiled under Section 10631, including available data from state, regional, or local agency population projections within the service area of the urban water supplier.	10635(a)		6.2 – 6.4	6-7
<b>DEMAND MANAGEMENT MEASURES</b>					
26	Describe how each water demand management measures is being implemented or scheduled for implementation. Use the list provided.	10631(f)(1)	Discuss each DMM, even if it is not currently or planned for implementation. Provide any appropriate schedules.	7.1	7-2
27	Describe the methods the supplier uses to evaluate the effectiveness of DMMs implemented or described in the UWMP.	10631(f)(3)		7.1	7-2
28	Provide an estimate, if available, of existing conservation savings on water use within the supplier's service area, and the effect of the savings on the ability to further reduce demand.	10631(f)(4)		7.2	7-4

No.	UWMP requirement <sup>a</sup>	Calif. Water Code reference	Additional clarification	UWMP location	Page Number
29	Evaluate each water demand management measure that is not currently being implemented or scheduled for implementation. The evaluation should include economic and non-economic factors, cost-benefit analysis, available funding, and the water suppliers' legal authority to implement the work.	10631(g)	See 10631(g) for additional wording.	7.2	7-4
32	Include the annual reports submitted to meet the Section 6.2 requirements, if a member of the CUWCC and signer of the December 10, 2008 MOU.	10631(j)	Signers of the MOU that submit the annual reports are deemed compliant with Items 28 and 29.	N/A	

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

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