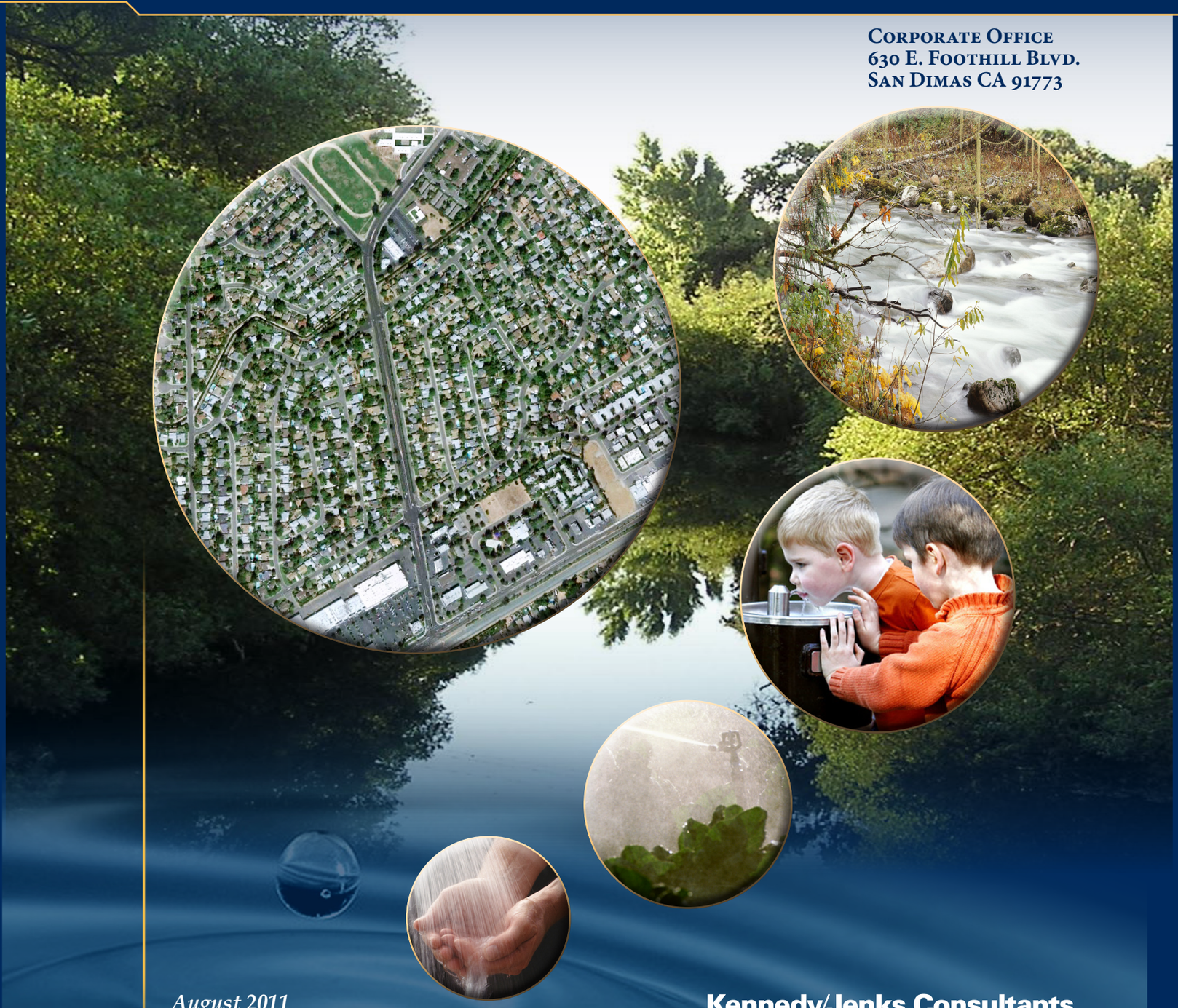
Golden State
Water Company
A Subsidiary of American States Water Company

Final Report

2010 Urban Water Management Plan
San Dimas

Corporate Office
630 E. Foothill Blvd.
San Dimas CA 91773



August 2011

Kennedy/Jenks Consultants

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Kennedy/Jenks Consultants

10850 Gold Center Drive, Suite 350
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Notice of Adoption

A meeting to solicit public comments on the 2010 Urban Water Management Plan for the Golden State Water Company San Dimas 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 San Dimas, California at least one week prior to the public hearing.

Golden State Water Company, hereby, adopts the 2010 Urban Water Management Plan for the San Dimas System.

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

August 31, 2011

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Abbreviations

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
CIC	Covina Irrigating Company
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
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 level
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
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
SMUD	Sacramento Municipal Utility District
SWP	State Water Project
TAF	thousand acre-feet per year
TDS	total dissolved solids
TOC	total organic carbon
TVMWD	Three Valleys Municipal Water District
Upper District	Upper San Gabriel Valley Municipal Water District
USEPA	U.S. Environmental Protection Agency
UWMP	Urban Water Management Plan
VOCs	volatile organic compounds
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
WY	water year

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Definitions

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

1.1 Background

This Urban Water Management Plan (UWMP) has been prepared for the Golden State Water Company (GSWC) San Dimas 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 preparation of 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) for retail or wholesale 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 San Dimas System in 1985, 1990, 1995, 2000, and 2005. This 2010 UWMP is an update to the 2005 plan.

GSWC water use targets for the San Dimas System were developed based on Compliance Method 1 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.

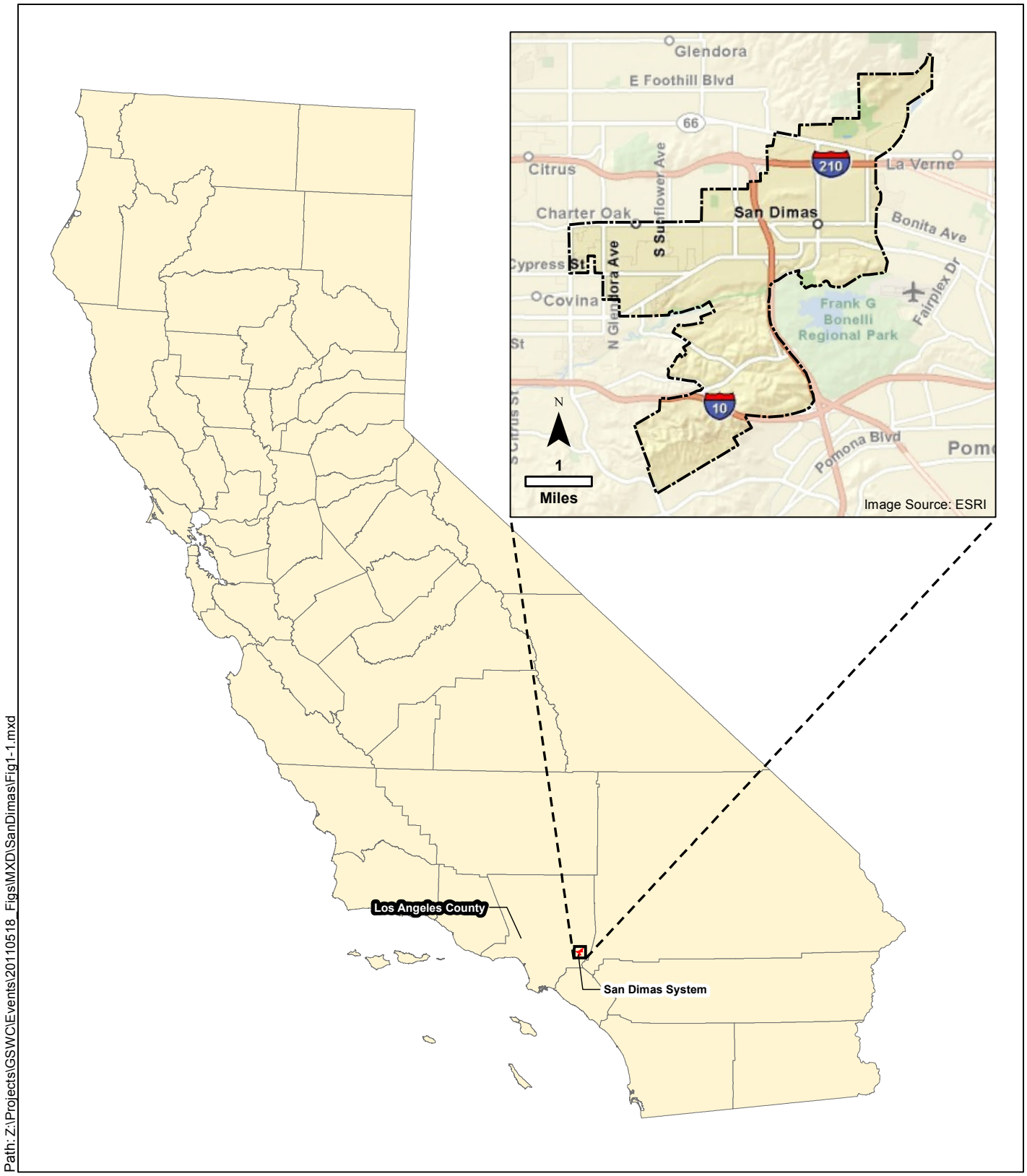
1.2 System Overview

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 San Dimas System.

Located in Los Angeles County at the foothills of the San Gabriel Mountains, the San Dimas System serves the City of San Dimas, portions of the cities of La Verne, Walnut, Covina, and a portion of the adjacent unincorporated area of Los Angeles County. 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 San Dimas 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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Golden State Water Company
2010 Urban Water Management Plan

San Dimas System
Location Map

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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 and Public Participation

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 Covina	✓	✓				✓	
City of Glendora	✓	✓				✓	
City of La Verne	✓					✓	
City of San Dimas	✓					✓	
City of Walnut	✓					✓	
County of Los Angeles	✓					✓	
City of Anaheim	✓	✓				✓	
Walnut Valley Water District	✓	✓				✓	
Three Valleys Municipal Water District	✓				✓	✓	
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 San Dimas 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 in advance in the local newspapers in accordance with Government Code Section 6066. Notifications were also posted to GSWC's website (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 San Dimas 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 San Dimas 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 San Dimas 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 Demand Management Measures 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, transfers and exchanges, supply projects, data sharing	13-21, 24, 30, 33
	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 climactic 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), 10631.5, 10608.26 (a), 10608.36	Conservation Program, DMMs and SBX7-7 water use reduction plan	2, 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 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

Chapter 2 summarizes the San Dimas 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 San Dimas System is located in Los Angeles County and serves the City of San Dimas, portions of the Cities of La Verna, Walnut, Covina, and a portion of the adjacent unincorporated area of Los Angeles County. The system is located in the eastern portion of the San Gabriel Valley at the foothills of the San Gabriel Mountains. The service area boundary includes developed and underdeveloped land area to the north east of San Dimas System. Figure 2-1 illustrates the service area of the San Dimas System. The service area is primarily characterized by residential land use, with some commercial and industrial land use.

2.2 Demographics

The City of San Dimas was chosen as demographically representative of the San Dimas System. According to 2000 U.S. Census Data, the median age of San Dimas' residents is 37.3 years. San Dimas has an average household size of 2.78 and a median household income of approximately $62,885 in 1999 dollars or $82,128 in 2010 dollars.

As detailed in the City of San Dimas' Housing Element (General Plan 2002), residential development represents the predominant land use in San Dimas. The General Plan and System map also indicates that build-out has nearly been reached in the areas feasible for residential or non-residential development. San Dimas has areas of hillside land that may be able to accommodate individual residential development. However, the difficulty and cost of constructing infrastructure within the rugged terrain may limit the viability of housing tracts and future large residential developments.

In the future, the City of San Dimas has indicated that redevelopment projects including affordable multi-family housing units may potentially be implemented within the San Dimas existing service area.

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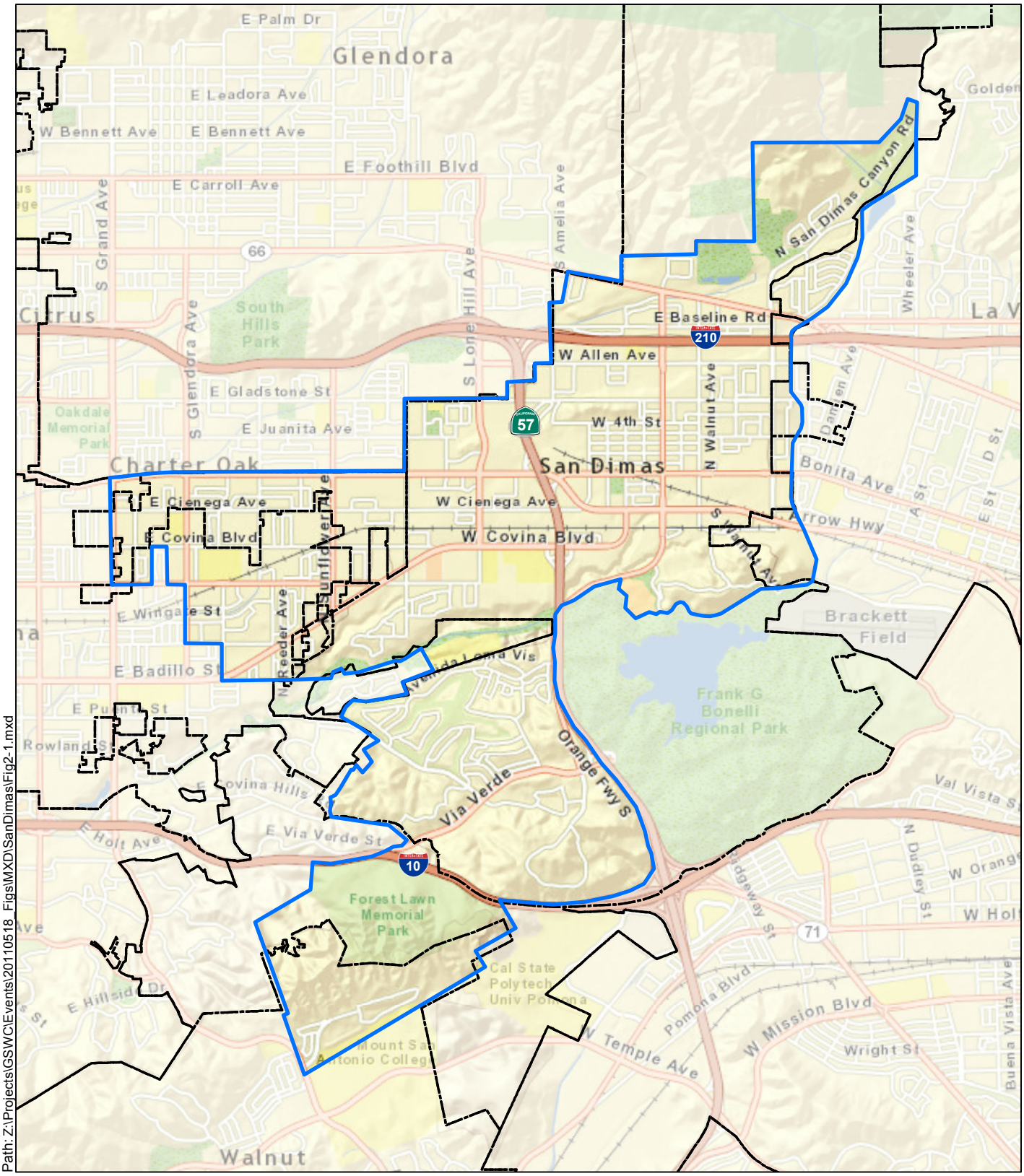

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- San Dimas System Boundary
- City Boundary

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Golden State Water Company
2010 Urban Water Management Plan

San Dimas System Service Area

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Figure 2-1

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2.3 Population, Housing and Employment

Population, housing, and employment projections were developed for the San Dimas 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 used in the 2008 Regional Transportation Plan (2008 RTP). SCAG's methodology is described below, followed by the derivation of population projections for the San Dimas 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 on 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 San Dimas 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 1997 to 2035. The San Dimas 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 San Dimas 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 San Dimas 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

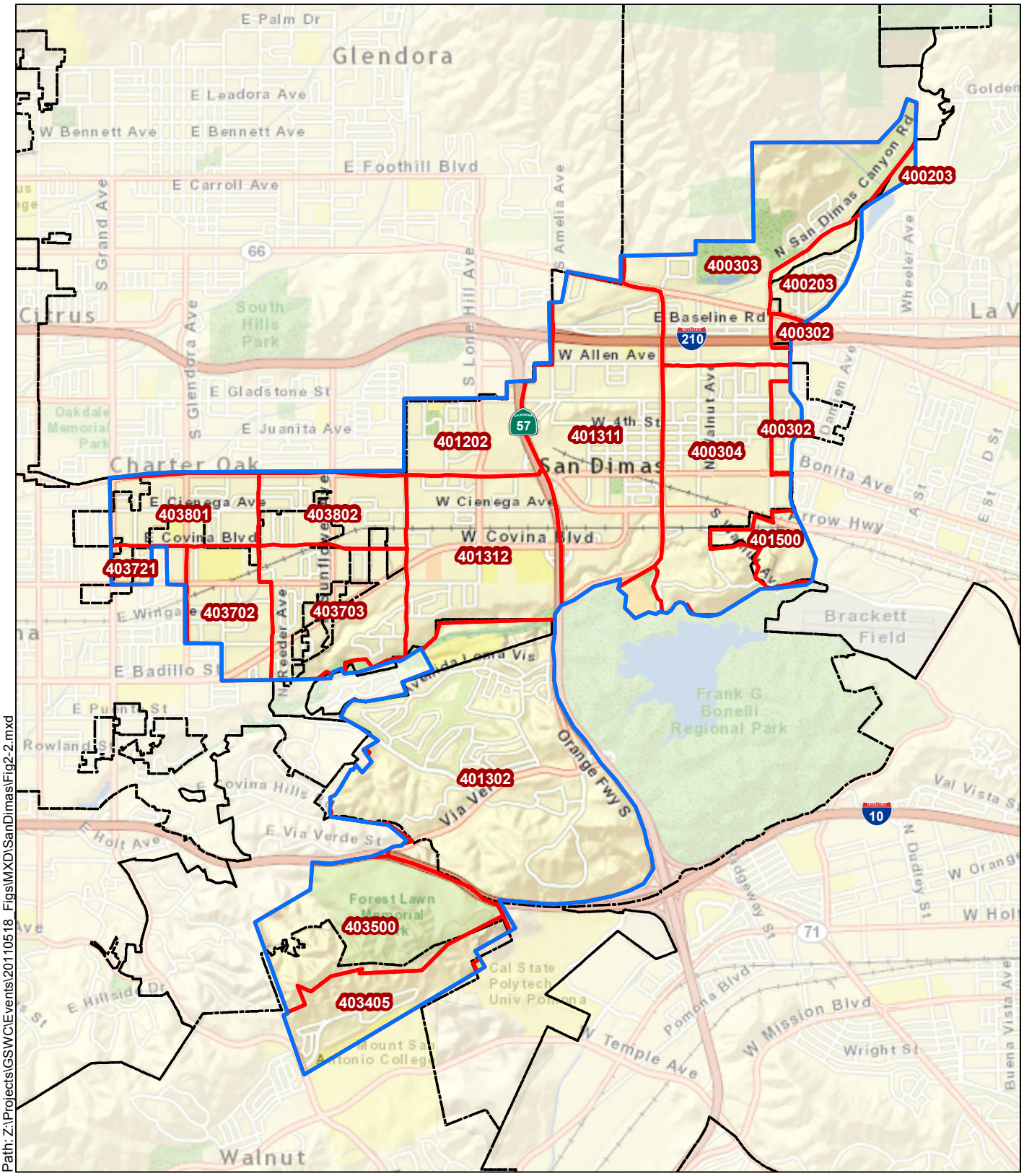
historic and projected demographic data for each census tract number from 2005 through 2035. Figure 2-2 details the census tracts within the San Dimas System.

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 the 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: San Dimas System Historical Population

Year	Service Area Population
1997	55,670
1998	55,534
1999	55,610
2000	55,853(1)
2001	56,055
2002	56,324
2003	56,397
2004	56,324
2005	56,374
2006	56,343
2007	56,286
2008	56,207
2009	56,180
2010	56,416

Note:
1. Population for year 2000 from 2005 UWMP.



Path: Z:\Projects\GSWC\Events\20110518_Figs\MXD\SanDimas\Fig2-2.mxd

Image Source: ESRI

Legend

- San Dimas System Boundary
- Census Tract Boundary within Service Area
- City Boundary

N

0 2,500 5,000

Feet

Kennedy/Jenks Consultants

Golden State Water Company
2010 Urban Water Management Plan

San Dimas 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 San Dimas System has an estimated population of 56,416 in 2010 and is expected to reach 76,769 by 2035. A summary of historic and projected population, households, and employment within the San Dimas System (based on SCAG 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.

Table 2-2: San Dimas System Historical and Projected Population

Year	Service Area Population	Service Area Household	Service Area Employment	Data Source
2005	56,374	18,357	20,750	GSWC
2010	56,416	18,983	21,573	GSWC
2015	59,017	20,017	22,234	SCAG
2020	63,473	21,870	22,676	SCAG
2025	68,131	23,374	23,192	SCAG
2030	72,557	24,788	23,741	SCAG
2035	76,769	25,923	24,272	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 San Dimas population increased 0.1 percent, which is a growth rate of approximately 0.03 percent per year. By 2035, population is expected to increase by a total of 36 percent, from 56,416 in 2010 to 76,769 in 2035, which is a 1.4 percent growth rate per year. The number of households is expected to grow 37 percent during the same period, which equates to an annual household growth rate of 1.5 percent. Employment is expected to grow 13 percent during the same period, which equates to an annual employment growth rate of 0.5 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. Based on San Dimas' System map there is not much land area available for future growth.

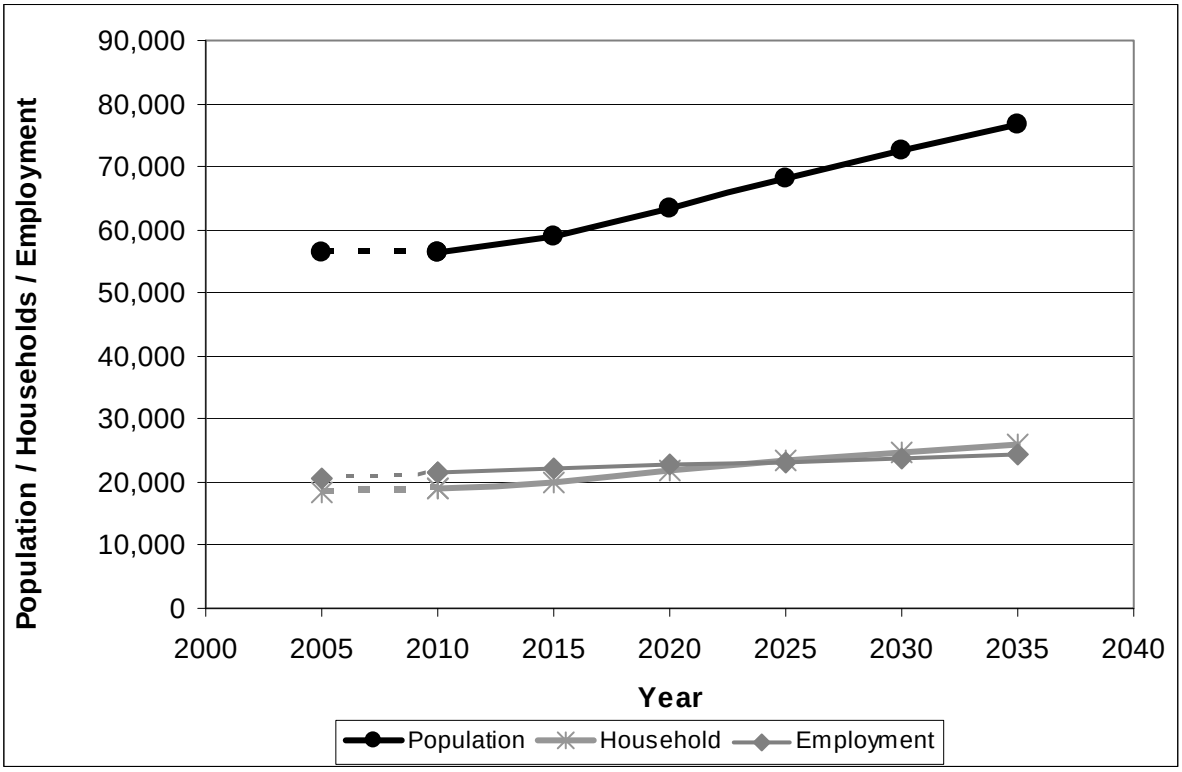

Figure 2-3: Historical and Projected Population, Household and Employment Growth within the San Dimas System

2.4 Climate

San Dimas System has cool, humid winters and warm, dry summers. Western Regional Climate Center (WRCC) has maintained 30 years of historical climate records for selected cities throughout the West. WRCC does not have a station at San Dimas, so the Pomona station, which is 7 miles from San Dimas, was utilized for the climate data analysis. The WRCC's website (www.wrcc.dri.edu) has climate records for the past 110 years for the Pomona station. Table 2-3 presents the average climate summary based on the 110-year historical climate data at Pomona, representing for the San Dimas System.

In the winter, the lowest average monthly temperature is approximately 38 degrees Fahrenheit. The highest average monthly temperature reaches approximately 91 degrees Fahrenheit in the summer. Figure 2-4 presents the monthly average precipitation based on 110-year historical data. The rainy season is typically from November to April. Monthly precipitation during the winter months ranges from 1 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 San Dimas System, 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 also come from the Pomona station, which is the closest station (4 miles) to the San Dimas 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 San Dimas System

Month	Standard Monthly Average ETo[(2)] (inches)	Average Total Rainfall (inches)	Average Temperature (degrees Fahrenheit)	
			Max	Min
January	1.9	3.62	65.4	38.0
February	2.2	3.54	67.7	40.2
March	3.6	2.85	70.1	42.2
April	4.6	1.23	74.1	45.5
May	5.2	0.35	77.8	49.9
June	5.9	0.10	84.1	53.4
July	6.5	0.01	91.1	57.6
August	6.4	0.07	91.1	57.9
September	4.9	0.27	88.4	55.1
October	3.3	0.77	80.7	49.7
November	2.3	1.57	73.3	42.5
December	1.8	2.73	66.4	38.3

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

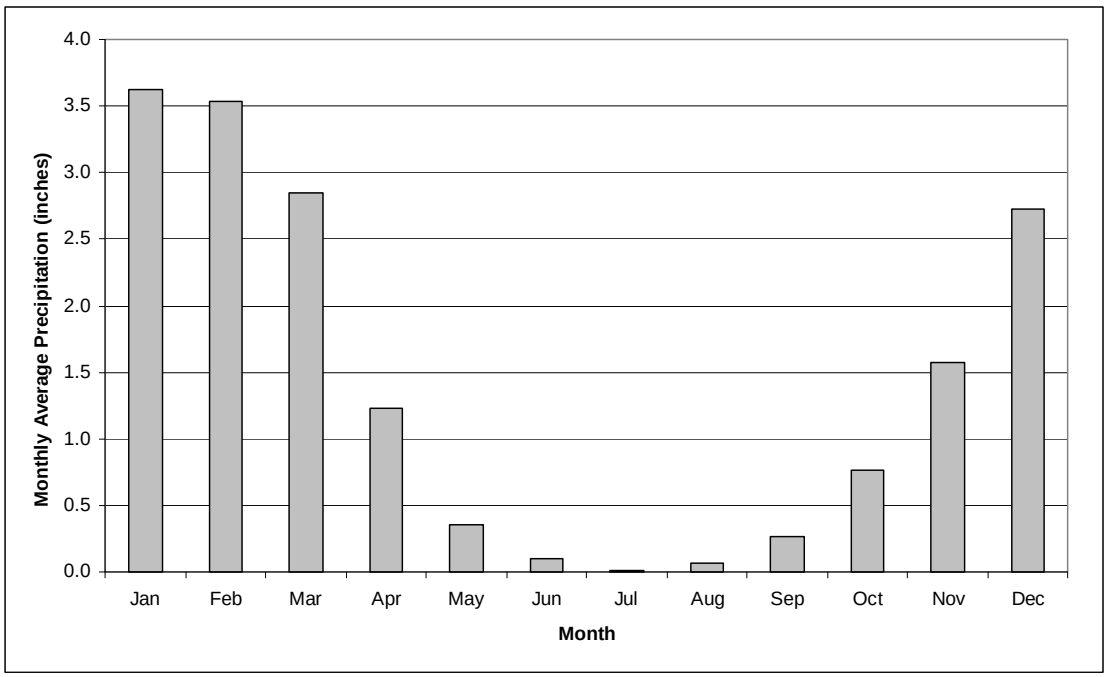

Figure 2-4: Monthly Average Precipitation at Pomona Station Based on 100-Year Historical Data

Chapter 3: Water Use

Section 10631(e) of the Act requires that an evaluation of water use be performed for the San Dimas 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 San Dimas 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 San Dimas System. Figure 3-1 shows the historical number of metered service connections and water use for the San Dimas System from 1994 through 2010.

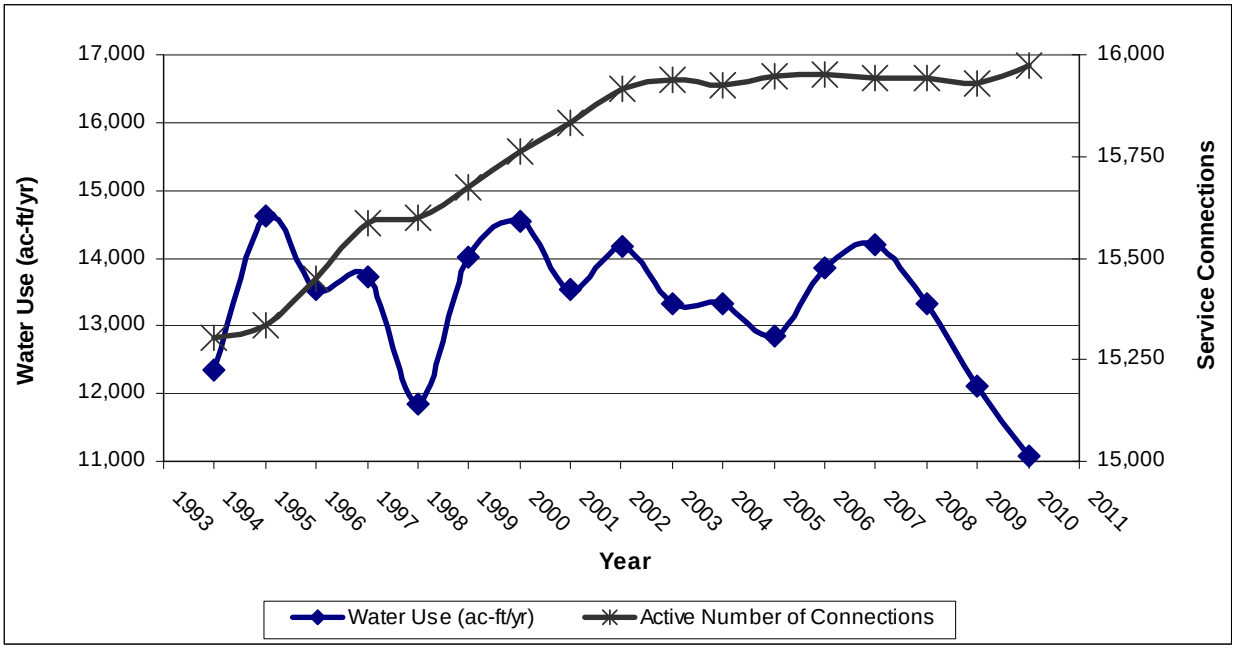

Figure 3-1: Historical Number of Metered Service Connections and Water Use

Figure 3-1 shows a decline in water use beginning in 2007 with an approximate 18 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 San Dimas 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	Agriculture	Commercial	Industrial	Institutional/ Government	Landscape	Multi-Family	Other	Single-Family	Total
1994	11	1,484	190	567	1,485	582	3	8,038	12,360
1995	12	2,337	519	1094	1,295	717	5	8,655	14,634
1996	12	1,753	169	928	1,503	766	5	8,399	13,535
1997	11	1,620	154	884	1,567	818	5	8,654	13,713
1998	10	1,574	193	798	1,245	721	4	7,298	11,843
1999	13	2,213	180	899	1,653	867	2	8,174	14,001
2000	12	2,501	242	957	1,713	862	3	8,246	14,536
2001	9	2,133	207	909	1,660	827	9	7,780	13,534
2002	9	2,196	224	983	1,721	834	8	8,206	14,181
2003	8	2,192	206	810	1,507	857	5	7,750	13,335
2004	5	1,793	190	798	1,682	855	6	7,997	13,326
2005	1	2,039	186	785	1,513	773	9	7,546	12,852
2006	1	2,536	228	737	1,702	791	2	7,857	13,854
2007	1	2,381	199	798	1,772	774	4	8,275	14,204
2008	1	2,278	162	836	1,645	725	3	7,670	13,320
2009	1	2,027	161	762	1,484	692	2	6,990	12,119
2010	1	1,930	204	684	1,234	653	2	6,377	11,085

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 San Dimas System was estimated and compared to actual water use records. The following three baseline gpcd calculations identified in SBX7-7 were evaluated for the San Dimas 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 water 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 San Dimas system does not currently receive recycled water; therefore Baseline Method 2 is not applicable. Table 3-3 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.

Table 3-2: Base Period Ranges			
Base	**Parameter**	**Value**	**Units**
10-year base period	2008 total water deliveries	13,454	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.

Table 3-3: 1997-2010 Base Daily Use Calculation			
Calendar Year	**Distribution System Population**	**Gallons / Day**	**Daily per Capita Water Use, gpcd**
1997	55,670	13,282,694	239
1998	55,534	11,549,030	208
1999	55,610	13,233,465	238
2000	55,853	13,306,387	238
2001	56,055	12,938,896	231
2002	56,324	13,795,837	245
2003	56,397	12,854,319	228
2004	56,324	13,308,863	236
2005	56,374	12,654,150	224
2006	56,343	12,569,509	223
2007	56,286	12,601,847	224
2008	56,207	12,011,395	214
2009	56,180	11,728,792	209
2010	56,416	10,642,286	189

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 231 and 227 gpcd were respectively 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	231
1998-2007	230
1999-2008	230
2000-2009	227
2001-2010	222

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	227
2004-2008	224
2005-2009	219
2006-2010	212

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 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-7.

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 reduction of 46 gpcd by 2020, as shown in Table 3-6. The 2015 interim target would be 208 gpcd with a 2020 water use target of 185 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)	231	208	185
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 San Dimas 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 231 gpcd is greater than 95 percent of the hydrologic regional target of 142 gpcd, a review of the minimum reduction target is not triggered per the DWR methodologies.

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)	231	186	142
Percent Reduction	n/a	19%	39%

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 San Dimas System is 216 gpcd, as presented in Table 3-8 below:

Table 3-8: Minimum 2020 Reduction

Description	5-Yr Average	2015 Interim Target	2020 Compliance Target
Minimum Allowable 2020 Target (gpcd)	227	221	216

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. Since both the Methods 1 and 3 compliance targets are less than the minimum reduction; compliance Method 1 was selected by GSWC for the San Dimas System. As a result, Table 3-9 shows the 2020 SBX7-7 compliance target for the San Dimas System is 185 gpcd and the 2015 interim water use target is 208 gpcd. The implementation plan for achieving these targets is described in Section 4.8, Recycled Water and Chapter 7, Demand Management Measures.

Table 3-9: SBX7-7 Water Use Reduction Targets (gpcd)

Baseline	2015 Interim Target	2020 Compliance Target
231	208	185

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 San Dimas 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 San Dimas System from 1994 through 2035. Figure 3-3 shows the historical and projected water use for the San Dimas System from 1994 until 2035.

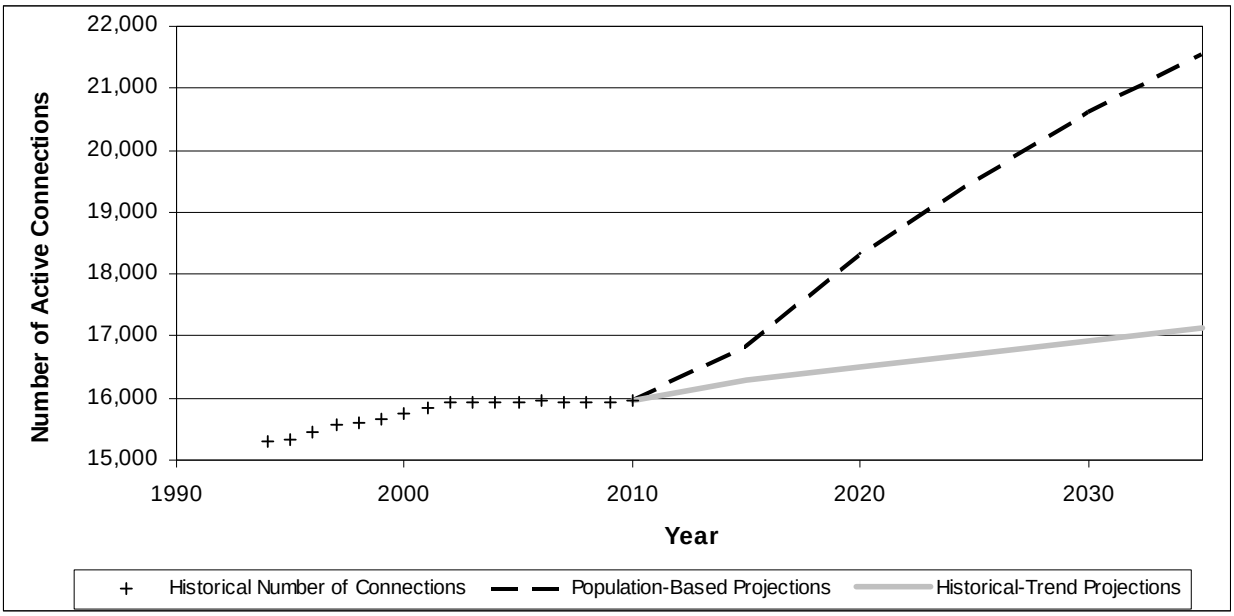

Figure 3-2: Historical and Projected Number of Metered Service Connections

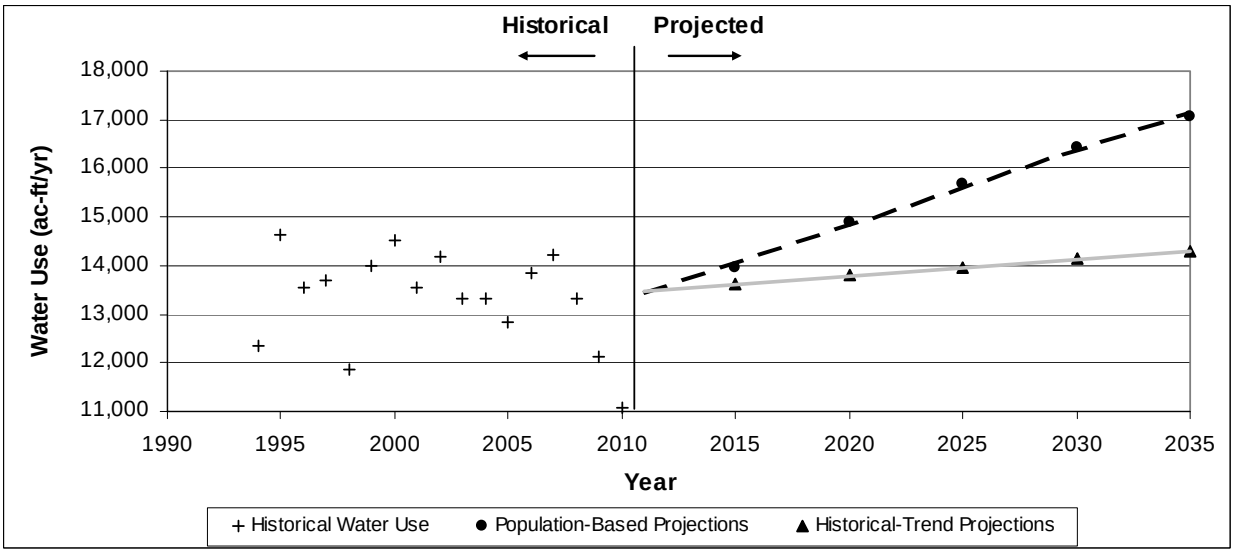

Figure 3-3: Historical Water Use and Future Water Use Projections

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 2010 UWMP's 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.

Table 3-10: Water Use Factors for the San Dimas System

	Account Category							
	Single Family	Multi-Family	Commercial	Industrial	Institutional/ Government	Landscape	Agriculture	Other[2]
Water Use Factor[1]	0.53	3.29	4.55	2.48	5.89	3.94	1.56	0.81

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 on 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.

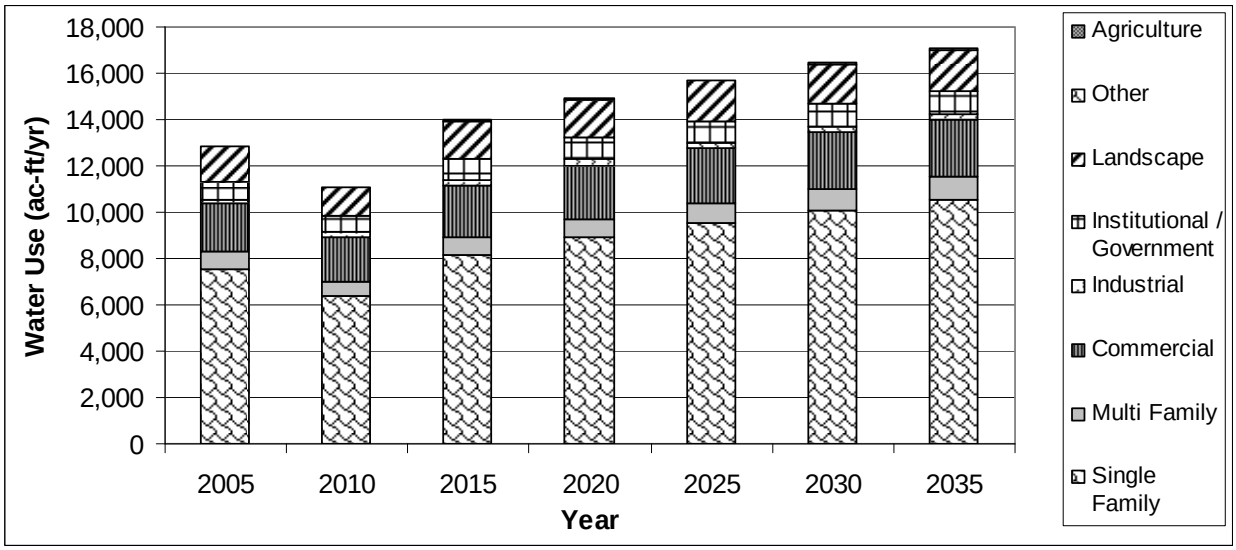

Figure 3-4: Projected Water Use by Customer Type

Table 3-11: Projections of the Number of Metered Service Connections and Water Use for the San Dimas System

Year	Projection Type	Accounts by Type								
		Single-Family	Multi-family	Commercial	Industrial	Institutional/ Government	Landscape	Agriculture	Other[3]	Total
2005[2]	*No. of Accounts*	14,612	215	484	77	138	411	3	5	15,945
	Water Use (ac-ft)	7,546	773	2,039	186	785	1,513	1	9	12,852
2010	*No. of Accounts*	14,622	216	483	93	151	402	3	5	15,975
	Water Use (ac-ft)	6,377	653	1,930	204	684	1,234	1	2	11,085
2015	*No. of Accounts*	15,419	228	498	96	156	415	4	6	16,822
	Water Use (ac-ft)	8,146	749	2,264	238	919	1,636	6	5	13,963
2020	*No. of Accounts*	16,847	249	508	98	159	423	4	6	18,294
	Water Use (ac-ft)	8,898	818	2,310	243	937	1,668	6	5	14,885
2025	*No. of Accounts*	18,005	266	520	100	163	433	4	6	19,497
	Water Use (ac-ft)	9,511	874	2,364	248	960	1,707	6	5	15,675
2030	*No. of Accounts*	19,094	283	532	103	167	443	4	6	20,632
	Water Use (ac-ft)	10,086	930	2,419	256	984	1,746	6	5	16,432
2035	*No. of Accounts*	19,968	295	544	105	170	453	4	6	21,545
	Water Use (ac-ft)	10,545	970	2,474	261	1,002	1,786	6	5	17,049

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 sales to other agencies for the San Dimas System; therefore, Table 3-12 has intentionally been left blank.

Table 3-12: Sales to Other Agencies in ac-ft/yr

Water Distributed	2005[2]	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 San Dimas 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 San Dimas System, from 2000 through 2010, system water losses have averaged approximately 6.2 percent of the total production; therefore, this rate was incorporated into water demand projections. Table 3-13 provides a summary of projected system losses for water in the San Dimas System.

Table 3-13: Additional Water Uses and Losses in ac-ft/yr

Water-Use Type	2005[2]	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[3]	1,322	837	866	923	972	1,019	1,058
Total	1,322	837	866	923	972	1,019	1,058

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 San Dimas System. Although there are no other water uses contributing to the total water demand in the San Dimas 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[2]	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	12,852	1,322	14,174	0	N/A
2010	11,085	837	11,922	0	N/A
2015	13,963	866	14,829	1,078	13,750
2020	14,885	923	15,809	2,655	13,153
2025	15,675	972	16,648	2,529	14,119
2030	16,432	1,019	17,451	2,415	15,036
2035	17,049	1,058	18,107	2,198	15,909

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

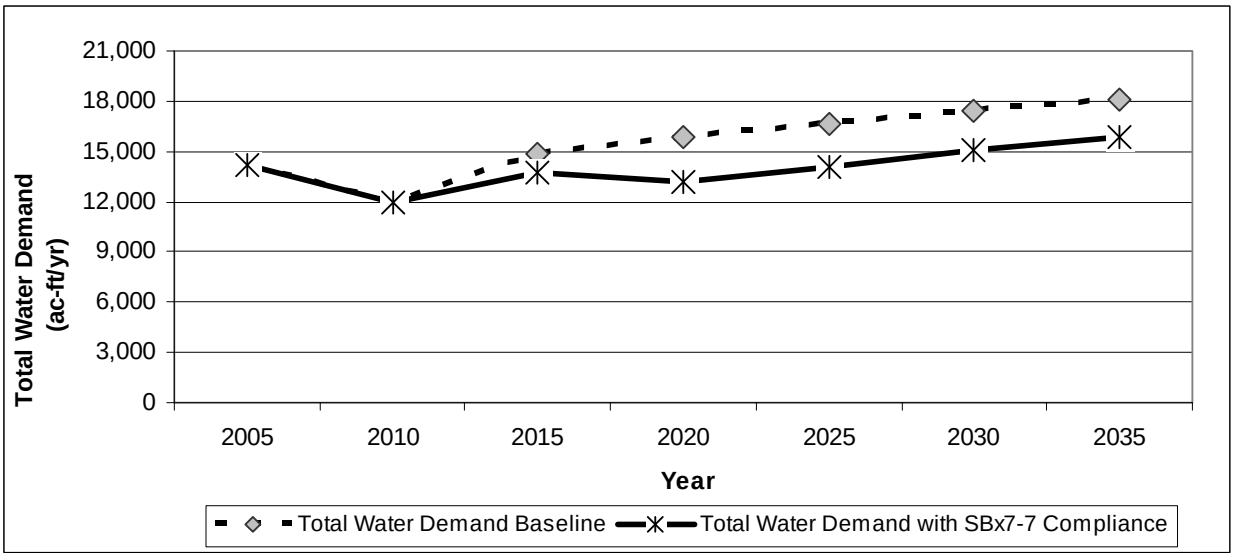

Figure 3-5: Total Water Demand

3.7 Data Provided to Wholesale Agency

GSWC provided the following projected water use data in late 2010 to Three Valleys Municipal Water District and Covina Irrigating Company, its wholesale water suppliers for the San Dimas System, as summarized in Table 3-15. Since the preliminary projections were submitted in 2010, GSWC has refined projections by integrating actual 2010 water usage and supply data. As a result, the projections shown in Table 3-15 below do not agree with the demands presented in other chapters of this UWMP. As required per Section 10631(k) the supporting documentation providing the water use projections to the wholesale agency is included in Appendix I.

Table 3-15: Summary of San Dimas System Data Provided to TVMWD in ac-ft/yr

Wholesaler	Contracted Volume	2010	2015	2020	2025	2030	2035
TVMWD	N/A	11,636	12,319	13,365	14,255	15,105	15,815
Covina Irrigating Company	N/A	60	60	60	60	60	60

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 San Dimas 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.

Table 3-16: Low-Income Projected Water Demands in ac-ft/yr

	2015	2020	2025	2030	2035
Single-Family Residence	714	1,018	1,266	1,498	1,684
Multi-Family Residence	39	67	90	112	128
Total	753	1,085	1,355	1,610	1,812

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.

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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 San Dimas 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 its water supply for the San Dimas System from local groundwater from the Main San Gabriel Groundwater Basin (Basin), purchased water from the Three Valleys Municipal Water District (TVMWD), and local surface water from the Covina Irrigating Company (CIC). TVMWD obtains its imported water supply from the Metropolitan Water District of Southern California (Metropolitan). The CIC diverts surface water from the San Gabriel River. In addition, GSWC also diverts untreated surface water from San Dimas Canyon Creek for use as golf course irrigation.

As described in Section 4.3.1, if demands for groundwater increase beyond the allocated OSY for the San Dimas System, 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 rights is permitted when replaced in kind with available replenishment water that is purchased from the Basin's responsible agency. TVMWD is the responsible agency for the portion of the Basin from which groundwater is pumped from the San Dimas Systems.

Table 4-1 below, summarizes the approximate amount of water supplied from each source in acre-feet per year. GSWC's water supply is projected to increase by about 52 percent from 2010 to 2035 to meet the associated projected water demands, with the majority of this demand being met by purchased water from TVMWD. This water supply summary is based on an analysis of groundwater supply and information included in the 2010 UWMPs prepared by TVMWD and CIC. The planned supplies from the surface diversion are based on average supplies between 2005 and 2010. Groundwater makes up between 18 and 31 percent of the available water supply, whereas the purchased water is between 67 and 79 percent. The surface diversion source is about three percent of available supply.

There is currently one project in place to use recycled water within the San Dimas System. GSWC has recently signed a contract with Forest Lawn Cemetery to use recycled water provided by California State Polytechnic University (Cal-Poly) for irrigation on their Covina Hills facility. GSWC will provide potable water as a back-up supply (see Section 4.8.3). GSWC presently provides potable water for irrigation of Forest Lawn Covina Hills. There are no other plans or uses of recycled water for the San Dimas system. The potential for additional future recycled water use is described in Section 4.8.

Table 4-1: Current and Planned Water Supplies for the San Dimas System in ac-ft/yr						
Source	**2010[1]**	**2015**	**2020**	**2025**	**2030**	**2035**
Purchased water from TVMWD	7,967	10,963	11,943	12,782	13,585	14,241
Purchased water from CIC	34	60	60	60	60	60
Groundwater[2]	3,730	3,306	3,306	3,306	3,306	3,306
Surface Diversion	190	500	500	500	500	500
Recycled water	0	0	0	0	0	0
Total	11,922	14,829	15,809	16,648	17,451	18,107

Notes:

1. 2010 water supplies are based on actual production records.
2. 2015-2035 groundwater projections are based on projected use in the Main San Gabriel Groundwater Basin assuming the FY 2009-2010 OSY of 190,000 ac-ft.
3. Table format based on DWR Guidebook Table 16.

This water supply summary is based on GSWC's groundwater management strategy for the San Dimas System, and information provided by TVMWD and CIC. Each water supply source is summarized below and discussed in greater detail in the following sections. Water demand projections are documented in Chapter 3. A discussion of the reliability of all sources of water supply is provided in Chapter 6.

Groundwater: Currently, the San Dimas System's groundwater is pumped from a total of eight active groundwater wells located in the adjudicated Main San Gabriel Basin. These wells have a current total active capacity of 7,227 acre-feet per year (ac-ft/yr). Between 2005 and 2010, the actual production averaged 3,760 ac-ft/yr.

Purchased water: Includes purchased water from TVMWD and CIC.

GSWC also has rights to divert 500 ac-ft/yr of surface water from San Dimas Canyon Creek. This water can either be diverted directly from the creek or added to the Company's groundwater pumping rights within the Main San Gabriel Basin.

4.2 Purchased Water

The TVMWD is a member agency of the Metropolitan Water District (Metropolitan) providing treated water to several agencies, including GSWC. Covina Irrigating Company obtains its water from surface water diversions from the San Gabriel River and groundwater pumped from the Main San Gabriel Basin. Additional details regarding TVMWD's and CIC's water supplies can be found each respective agency's 2010 UWMP. Water purchased from the TVMWD (with three connections) and CIC (with one connection) is delivered to the San Dimas System through the following:

- Baseline connection with TVMWD with a design capacity of 2,800 gallons per minute (gpm).
- PM-7 connection with TVMWD with a design capacity of 6,750 gpm.

- PM-16 connection with TVMWD with a design capacity of 9,000 gpm.

- Covina (CIC) connection with a design capacity of 1,200 gpm.

These connections have a combined active design capacity of 19,750 gpm. Total connection capacity with TVMWD accounts for 18,550 gpm and with CIC for 1,200 gpm. All water purchased by GSWC through the baseline connection is treated at TVMWD's Miramar Water Treatment Plant. The Miramar Water Treatment Plant has a capacity of 38 mgd.

TVMWD uses a tiered rate structure for delivering water to its retail member agencies, including GSWC. The San Dimas and Claremont Systems have a combined allocation of 13,166 ac-ft/yr of TVMWD Tier 1 water for 2010. The tiered program allocates to each retail member agency a specific quantity of import water at a set rate for the calendar year. Any consumption over the Tier 1 allocation will incur Tier 2 rates, which are significantly higher. The individual Tier 1 allocations were initially developed based on average annual import water use during the 10-year period prior to the start of the tier program 9 years ago. Currently, the tiered approach only affects the price of water, not its availability.

Historically, GSWC has purchased a small portion of its water supply from CIC for the San Dimas System. The average supply from CIC has been 500 ac-ft/yr between 2005 and 2010, but will likely be reduced and continue at approximately 60 ac-ft/yr. GSWC owns 66 shares in CIC which entitles GSWC to approximately 65 ac-ft/yr of CIC water supply. To obtain water in excess of this amount, GSWC must either lease shares from other shareholders or purchase surplus water from the CIC.

In addition, GSWC has the following four emergency connections:

- Connection with the City of La Verne with a design capacity of 1,000 gpm.

- Connection with the City of Glendora with a design capacity of 1,000 gpm.

- Connection with the City of Covina with a design capacity of 1,000 gpm.

- Connection with the Walnut Valley Water District with a design capacity of 1,000 gpm.

Emergency connections are available in the event that the primary sources of supply are lost or unavailable for any reason. The emergency connections cannot be used for normal operations.

4.3 Groundwater

A brief description of the Main San Gabriel Basin (Main Basin), including the groundwater supplies available to GSWC is provided below. Additional information can be found in the references cited in these sections.

The Main San Gabriel Basin has a surface area of approximately 154,000 acres (241 square miles). It 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 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 and is approximately 100 feet in thickness (DWR, 2004). The Pleistocene alluvium forms most of the productive water-bearing deposits in the basin and consists mainly 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 (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 was estimated to have a hydraulic conductivity of 135 ft/d and sandy clay being 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 Main San Gabriel Basin Watermaster (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 (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 right to use groundwater from the San Gabriel Valley Basin was 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 only 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 ac-ft. 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, accommodating 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. GSWC may pump groundwater in excess of the OSY as long as it pays the Replacement Water Assessment. Each water right holder is assigned a set percentage of the OSY annually. Because the OSY is recalculated each fiscal year (FY), the actual amount of water GSWC can pump free of the replenishment assessment can vary annually. Since the basin was adjudicated in 1973, the OSY has ranged from a low of 140,000 ac-ft (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 TVMWD, the applicable responsible agency, which is determined by geographic and political boundaries under terms of the Judgment. TVMWD is responsible for ensuring that the basin is not overdrawn 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 two years, replenishment water has not been available for recharge 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 1.73984 percent of the groundwater in the Main San Gabriel Groundwater Basin for the San Dimas System. The OSY was established at 210,000 ac-ft/yr in May 2011 for FY 2011-12 which means GSWC's current pumping right is 3,654 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 3,306 ac-ft/yr. This total could be increased by purchasing or leasing additional water rights from other pumpers 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. GSWC's total share of the Main San Gabriel Basin OSY for the San Dimas System has varied from 2,436 ac-ft/yr to 4,176 ac-ft/yr. This range reflects the low and high of the OSY since the basin was adjudicated and includes 500 ac-ft/yr of rights that can be used from either surface water or groundwater. The historic low, high, and current operating safe yield for the Main San Gabriel Basin are shown in Table 4-2

Table 4-2: Main San Gabriel Basin Groundwater Pumping Rights

Condition/Time Period	Operating Safe Yield (ac-ft/yr)	GSWC Pumping Rights[(1)] (ac-ft/yr)
Historic Low OSY (FY 1991 – 1992)	140,000	2,436
Historic High OSY (FY 2005 – 2007)	240,000	4,176
Current OSY (FY 2011 – 2012)	210,000	3,654

Notes:
1. GSWC pumping right is equal to 1.73984 percent of the OSY for the San Dimas System.
2. OSY is reassessed on an annual basis.

GSWC currently operates eight active wells in the Main San Gabriel Basin, as listed in Table 4-3**.** Well production capacity is provided in terms of instantaneous capacity in gpm and annual yield in ac-ft/yr for the San Dimas System. The total normal year well capacity for GSWC's San Dimas System is 4,480 gpm (7,227 ac-ft/yr).

Table 4-3: Well Name and Capacity		
Well Name	**Current Well Capacity (gpm)[1]**	**Current Well Capacity (ac-ft/yr)**
Artesia No. 3	250	403
Baseline No. 3	650	1,048
Baseline No. 4	650	1,048
Columbia Reservoir No. 4	400	645
Columbia No. 6	430	694
Highway No. 1	650	1,048
Highway No. 2	1,000	1,613
Malone No. 1	450	726
Total Capacity	**4,480**	**7,227**

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 San Dimas System for calendar years 2005 through 2010. From 2005 to 2010, groundwater represented between 14 and 38 percent of the total water supply for the San Dimas System. The remaining water supply is obtained from purchased or surface water.

Table 4-4: Groundwater Pumping History by San Dimas System (2005 to 2010) in ac-ft							
Basin Name	**Metered or Unmetered**	**2005**	**2006**	**2007**	**2008**	**2009**	**2010**
Main San Gabriel	Metered	1,958	4,372	5,365	3,783	3,353	3,730
Percent of Total Water Supply		14%	31%	38%	28%	26%	31%

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 San Dimas System through 2035 are summarized in Table 4-5. If needed, the San Dimas System's share of the OSY could be increased 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.

Table 4-5: Projected Groundwater Pumping Amounts by San Dimas System to 2035 in ac/ft						
Basin Name	**2010**	**2015**	**2020**	**2025**	**2030**	**2035**
Main San Gabriel	3,730	3,306	3,306	3,306	3,306	3,306
Percent of Total Water Supply	31%	22%	21%	20%	19%	18%

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 San Dimas System at this time; therefore, Table 4-6 has been left blank.

Table 4-6: Transfer and Exchange Opportunities					
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 directly within the San Dimas System at this time; however, GSWC is exploring water supply opportunities in other areas that could be used to augment local and imported resource needs. GSWC, as a part of its normal maintenance and operations, will construct new wells, pipelines, and treatment systems as needed as a part of its ongoing Capital Investment Program to maintain its supply and meet distribution system requirements.

A potential long-term water supply transfer opportunity that GSWC is evaluating is the Cadiz Valley Water Conservation, Recovery and Storage Project (Cadiz Project). The project is designed to capture and conserve thousands of acre-feet of native groundwater currently being lost to evaporation through an aquifer system beneath Cadiz's property in eastern San Bernardino County, California. By implementing established groundwater management practices, the project will create a new, sustainable annual water supply for project participants. In addition, the project offers storage capacity that can be used by participants to carry-over – or "bank" – annual supplies, without the high rates of evaporative loss suffered by local surface reservoirs.

The Cadiz Project will produce up to 50,000 ac-ft/yr for fifty years. GSWC is one of five entities that have expressed an interest in receiving water from the project. In 2009, GSWC signed a letter of intent to purchase up to 5,000 ac-ft/yr and committed to paying a share of the cost of the project's environmental evaluation. GSWC continues to evaluate the economics and technical feasibility of this project. Table 4-7 shows the potential water supply that could be provided by the Cadiz Project.

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
Cadiz Project	5,000	5,000	5,000	5,000	5,000

Note:
This table is based on the DWR Guidebook Table 26.

4.6 Wholesale Agency Supply Data

TVMWD, in conjunction with GSWC and other TVMWD customers as well as with Metropolitan, has planned water supply projects to increase reliability within its service area. Details of these plans can be found in TVMWD's 2010 Urban Water Management Plan. In addition to the existing imported water supplies received from Metropolitan, TVMWD plans to increase water supplies through various plans including cyclic groundwater storage agreements and conjunctive use programs.

The TVMWD's 2010 UWMP finds that the region is continuing to improve its water reliability by designing programs to protect and ensure water quality, maximize local supplies (local groundwater, surface water, and recycled water), promote conservation, increase storage capacity, encourage recycled water use and meet its demands during shortages. TVMWD's 2010 UWMP suggests that TVMWD has a water service plan that will provide 100 percent reliable service to its customers for the next 25 years.

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

Wholesaler Sources	Contracted Volume	2010	2015	2020	2025	2030	2035
TVMWD		7,967	10,963	11,943	12,782	13,585	14,241
CIC		34	60	60	60	60	60

Note:
This table is based on DWR Guidebook Table 17.

Table 4-9 demonstrates the reliability of wholesale water supply to meet annual water demand of the San Dimas System. The table includes a single-dry year and multiple-dry year supplies for 2035. As previously noted, the available supply from TVMWD is higher than the supply needed to meet demands during various hydrologic conditions. TVMWD is assured by Metropolitan of 100 percent reliability to meet the water demand through 2035.

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
TVMWD	14,589	14,589	14,589	14,589	14,589
Percent Normal		100	100	100	100

Note:
Table format based on DWR Guidebook Table 31.

Table 4-10 lists factors affecting wholesale supply for the San Dimas System. Metropolitan plans on 100 percent supply reliability to TVMWD, which in turn provides 100 percent reliability of supply to the San Dimas System.

Table 4-10: Factors Affecting Wholesale Supply				
Name of Supply	Legal	Environmental	Water Quality	Climatic
TVMWD	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 San Dimas System. Section 10631(i) of the Act requires an evaluation of desalination opportunities within the San Dimas 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.*

Wholesalers providing water to the San Dimas System are actively pursuing seawater desalination projects. Water produced by these desalination projects would increase the total available water supply for the wholesalers and would, in-turn, improve the reliability of water supply for the San Dimas System. However, it is not possible at this point to quantify the amount of desalinated water that will be available for the GSWC's San Dimas System. The following discussion summarizes the desalination plans of water wholesalers. Metropolitan and its member agencies, including the Three Valleys Municipal Water District (TVMWD) view seawater desalination as a component of a diversified water supply portfolio. Recent and continuous breakthroughs in membrane technology have helped to reduce desalination costs, leading to the consideration of desalination among the alternative resource options outlined in Metropolitan's 2010 Integrated Resources Plan (IRP) Update. This updated plan describes a diversified regional strategy to include recycled water, groundwater recharge, and seawater desalination in its portfolio of methods to ensure robust water supply reliability. In 2001, Metropolitan established the Seawater Desalination Program to encourage its member agencies to develop desalination projects, and in the 2004 IRP Update established a target goal of up to

150,000 ac-ft/yr of desalination capacity from its retailers by 2025. This is an important component of the total estimated water supply production for the region.

Metropolitan is also involved in efforts to assess current desalination projects and to compare project features and applicability to Southern California. Furthermore, Metropolitan, in association with member agencies, is involved in assessing established and emerging desalination treatment technologies, pretreatment alternatives, and brine disposal issues, as well as the permitting and regulatory approvals associated with the delivery of desalinated seawater to regional and local distribution systems.

TVMWD is land locked without direct access to the ocean and therefore does not view desalination as a practical nor economically feasible water supply option at this time. Additionally, seawater intrusion has not affected TVMWD's groundwater basins, so recovery and desalination of brackish groundwater is not a viable potential water resource. Although some of TVMWD's wells do have high levels of total dissolved solids (TDS), the expense and complexity of desalters has precluded their application for these wells.

Table 4-11 provides a summary of opportunities for water desalination. As noted above, the future desalination projects of Metropolitan member agencies will collectively increase the reliability of water supply for the region. However, the exact quantity that will be available to the GSWC's San Dimas System is not known at this time.

Table 4-11: Summary of Opportunities for Water Desalination

Source of Water	Yield (ac-ft/yr)	Start Date	Type of Use	Other
Seawater (Metropolitan)[1]	150,000	2025	Municipal	N/A

Note:
1. Desalinated water available thru Metropolitan may benefit San Dimas indirectly through wholesaler TVMWD.

4.8 Recycled Water Plan

This chapter covers Section 10633 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 participated in the development of recycled water plans that affect the San Dimas 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 San Dimas area is collected by gravity sewers and lift stations owned by the cities of San Dimas, Covina, La Verne, and Walnut, as well as by 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 San Dimas System, an estimated per capita wastewater generation factor was used to calculate the volume of wastewater generated by GSWC's customers in San Dimas. 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 San Dimas 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 San Dimas 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 San Dimas System that will be discharged into the San Gabriel River.

Although much of the wastewater generated in the San Dimas System is recycled, all of the existing reuse sites are elsewhere in the LACSD system, and there are no existing uses of recycled water within the boundaries of the San Dimas 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 San Dimas System

	2005[3]	2010[3]	2015	2020	2025	2030	2035
Projected population in service area[2]	56,374	56,416	59,017	63,473	68,131	72,557	76,769
Wastewater collected and treated in service area[4]	6,315 (5.64 mgd)	6,319 (5.64 mgd)	6,611 (5.90 mgd)	7,110 (6.35 mgd)	7,632 (6.81 mgd)	8,127 (7.26 mgd)	8,599 (7.68 mgd)
Quantity that meets recycled water standard	6,315 (5.64 mgd)	6,319 (5.64 mgd)	6,611 (5.90 mgd)	7,110 (6.35 mgd)	7,632 (6.81 mgd)	8,127 (7.26 mgd)	8,599 (7.68 mgd)

Notes:

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

Table 4-14: Estimates of Existing and Projected Disposal of Non-Recycled Wastewater in ac-ft/yr (mgd) for the San Dimas System								
Method of Disposal	**Treatment Level**	**2005[(2)]**	**2010[(2)]**	**2015**	**2020**	**2025**	**2030**	**2035**
River Discharge	Tertiary	3,569 (3.19)	3,572 (3.19)	3,737 (3.34)	4,019 (3.59)	4,314 (3.85)	4,594 (4.10)	4,860 (4.34)

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 San Dimas System		
Type of Use	**Treatment Level**	**2010 Use (ac-ft/yr)**
N/A	N/A	N/A

4.8.3 Potential and Projected Use

The San Jose Creek and Whittier Narrows WRPs are too far downstream to economically provide reclaimed water to the San Dimas System. The Pomona WRP is closer to the San Dimas System; however, most of the output from the Pomona WRP is currently used at other existing recycled water sites which are not part of the San Dimas System.

However, LACSD has identified a potential to use water from the Pomona WRP to irrigate the Forest Lawn Covina Hills Cemetery, which is within GSWC's San Dimas System. Forest Lawn and LACSD are in the process of developing the infrastructure to extend recycled water distribution lines from the California State Polytechnic University campus. The project is expected to be operational in 2012, with a projected usage rate starting at 340 ac-ft/yr. As the cemetery is gradually developed, recycled water use will also gradually increase to 880 acre-feet per year at final build-out, projected for 2160. This translates into an annual linear increase in recycled water use of 3.65 ac-ft/yr. Thus, the projected use for 2015 is equal to 340 + 3.65x3 = 351 ac-ft/yr. Potential and projected recycled water use for the Forest Lawn Covina Hills cemetery are presented in Table 4-16 and Table 4-17, respectively. No other potential recycled water users have been identified within the boundaries of the GSWC San Dimas System. However, if and when LACSD is able to implement any other recycled water project in the San Dimas System, GSWC will support the project by encouraging recycled water use among its customers where feasible. In the 2005 UWMP for the San Dimas System, there were no projections of recycled water for the year 2010, so Table 4-18 has intentionally 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**
Landscape Irrigation	Tertiary	Forest Lawn Cemetery	High	351	369	387	406	424

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**
Landscape Irrigation	351	369	387	406	424

Table 4-18: Comparison of Recycled Water Uses—Year 2005 Projections versus 2010 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

Since there is no existing use of recycled water and no plans in place to provide recycled water within the San Dimas System beyond the project already in progress for Forest Lawn, there are currently no actions by which GSWC is encouraging the use of recycled water. Therefore, Table 4-19 is not applicable for this system and has been intentionally left blank.

As owner and operator of the San Jose Creek, Whittier Narrows, and Pomona WRPs, the LACSD is responsible for determining the technical and economic feasibility of supplying recycled water to the San Dimas System. Extension of the recycled water lines within the San Dimas System would also be the responsibility of LACSD. If and when LACSD decides to implement a recycled water project in the San Dimas area, GSWC will support the project by encouraging recycled water use among its customers where feasible.

Table 4-19: Methods to Encourage Recycled Water Use and the Resulting Projected Use in ac-ft/yr					
Actions	**2010**	**2015**	**2020**	**2025**	**2030**
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

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 San Dimas 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

Treated surface water purchased from Metropolitan Water District, Three Valleys Municipal Water District (TVMWD) and the Covina Irrigating Company (CIC) enters the San Dimas System through inter-connections. Metropolitan, TVMWD, and CIC are responsible for meeting all drinking water standards as water leaves their surface water treatment plants, and at all inter-connections with the San Dimas 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 San Gabriel Valley Municipal Water District (Upper District) also maintains a basin wide 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 San Dimas 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 San Dimas System are designed to meet 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.

Portions of the basin are impacted by contaminants from past agricultural practices, and improper waste disposal. The contaminants consist primarily of nitrate and perchlorate. The

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

Nitrate. Five of the eight active wells have elevated nitrate concentrations for which blending or ion exchange treatment is being implemented to lower concentrations to less than 80 percent of the MCL.

Perchlorate. Perchlorate has impacted three wells for which ion exchange treatment is being used.

Radon. Radon has been detected in all of the wells in the system. Radon levels have been reported in the range of 140 to 1,059 pCi/L. In 1999, the USEPA has 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 many 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 allow the alternative MCL standard. If an MCL is promulgated, Multimedia mitigation would be recommended for these wells.

Table 5-1: Summary of Assessment					
Well	**Current Well Capacity (gpm)[1]**	**Status**	**Water Quality Issue/Concern**	**Existing Treatment**	**Recommendations**
Artesia No. 3	250	Active	Nitrate Perchlorate; Radon	Ion Exchange	Continue Treatment; future multimedia mitigation (radon)
Baseline No. 3	650	Active	Nitrate Perchlorate; Radon	Ion Exchange	Continue Treatment; future multimedia mitigation (radon)
Baseline No. 4	650	Active	Nitrate Perchlorate; Radon	Ion Exchange	Continue Treatment; future multimedia mitigation (radon)
Columbia No. 4	400	Active	Nitrate Perchlorate; Radon	Ion Exchange	Continue Treatment; future multimedia mitigation (radon)
Columbia No. 6	430	Active	Nitrate Perchlorate; Radon	Ion Exchange	Continue Treatment; future multimedia mitigation (radon)
Highway No. 1	650	Active	Nitrate Perchlorate; Radon	Ion Exchange	Continue Treatment; future multimedia mitigation (radon)
Highway No. 2	1,000	Active	None	None	
Malone	450	Active	Nitrate (less than MCL); Radon	Blending	Future multimedia mitigation (radon)

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 San Dimas 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 San Dimas 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. The San Dimas 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 because of groundwater contamination (Table 5-2), evaluations will be made to determine the feasibility of treatment options and/or drilling new wells.

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
Artesia No. 2 (Destroyed)	(723)	0	0	0	0	0
Artesia No. 3	0	0	0	0	0	0
Baseline No. 3	0	0	0	0	0	0
Baseline No. 4	0	0	0	0	0	0
City (removed from system)	(361)	0	0	0	0	0
Columbia No. 4	0	0	0	0	0	0
Columbia No. 6	0	0	0	0	0	0
Highway	0	0	0	0	0	0
Highway No. 2 (new well)	0	1,613	0	0	0	0
Malone	0	0	0	0	0	0

Note:
Table format based on DWR Guidebook Table 30.

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Chapter 6: Water Supply Reliability

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 San Dimas System obtains its water supply from four sources, purchased water from TVMWD and CIC, surface water diversions, and groundwater from the Main San Gabriel Groundwater Basin. Therefore, conditions in local and distant areas can impact the reliability of supplies. The following discussion summarizes the reliability of GSWC's water supply sources. In general, GSWC's supply is expected to be 100 percent reliable through 2035. This reliability is a result of:

- Projected reliability of TVMWD as a member of Metropolitan, which intends to provide 100 percent reliability to member agencies such as TVMWD,
- Reliable water supply from CIC,
- Reliable water source from surface water diversion from San Dimas Canyon Creek, and
- GSWC's share of the OSY in the Main San Gabriel Groundwater Basin.

6.1.1 Reliability of Purchased Water from TVMWD

TVMWD, the local imported water wholesaler, is largely a pass-through entity which obtains nearly all its 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.

6.1.1.1 Metropolitan Supply Reliability

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.

6.1.1.2 TVMWD's Water Supply Reliability

In addition to Metropolitan's reliability initiatives, TVMWD has taken important steps over the past decade to reduce the vulnerability to extended drought or other potential threats. Use of local groundwater, regional surface water and local recycled water are the major sources of TVMWD's water supply in addition to imported water supplies from Metropolitan. Furthermore, TVMWD's conjunctive use projects foster efficient use of imported water and optimize the interdependence of groundwater storage and imported supplies. Conjunctive use assists with resource availability during times of drought. TVMWD is increasing reliability within its service area by maximizing existing water resources, diversifying the water resource mix over the next 25 years. The potential additional sources available to the San Dimas System include:

- Increased local conservation and water recycling,
- Improvements in the reliability of imported supplies,
- Increased regional surplus storage, and
- Increased conjunctive-use groundwater programs.
- TVMWD's dependence on traditional sources of water (groundwater and imported) will continue to decrease with the expansion of these alternative resources (see TVMWD's 2010 UWMP for details).

6.1.2 CIC's Water Supply Reliability

According to the CIC's 2010 UWMP, the reliability of CIC's various sources (surface water diversion and groundwater) is primarily dependent upon the management of the Main Basin. If CIC's annual groundwater right in the Main Basin is exceeded, CIC relies on the availability of supplemental imported water used to replace the annual extraction in excess of the annual right. CIC states that in most instances, including during drought years, water stored in the San Gabriel Reservoir and Morris Reservoir is available for surface diversion (CIC, 2011). For these reasons, it is assumed CIC's relatively small water supply to GSWC is 100 percent reliable.

6.1.3 Groundwater Supply Reliability

GSWC's San Dimas System has a total share of 1.73984 percent of the total annual OSY of the Main San Gabriel Basin. Under the Main San Gabriel Basin Judgment the Watermaster is responsible for managing the 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 msl. The Judgment also states that the Watermaster shall spread replacement water necessary to maintain the water level elevation above 200 feet msl. During the period of management under the Judgment, significant drought events have occurred from 1969 to 1977, 1983 to 1991, and 1998 to 2004. In each drought cycle the Main San Gabriel Basin was managed to maintain groundwater levels. Based on historic management practices, all pumpers from the Main San Gabriel Basin are expected to have adequate supply over the next 25 years under single year and multiple year drought periods (TVMWD, 2011). The TVMWD's UWMP provides basin-wide details concerning the reliability of the Main San Gabriel Basin.

GSWC and other water producers participate with the responsible agency, TVMWD, to ensure that the OSY is available to the pumpers in the Main San Gabriel Basin. The TVMWD 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 40,000 ac-ft of water for the TVMWD. Currently, Metropolitan has 11,200 ac-ft of water in storage for TVMWD (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. The TVMWD also continues to evaluate alternatives to augment Metropolitan's imported supply, such as implementation of recycled water programs.

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 one 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.

6.1.4 San Dimas System's Water Supply Reliability

Supply reliability for the San Dimas System depends upon the reliability of purchased water from TVMWD and CIC and local groundwater pumping from the Main San Gabriel Groundwater Basin, as discussed above.

Table 6-1 presents water supply projections for purchased and groundwater sources during a normal year, single-dry year, and multiple-dry years for the San Dimas 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. The results, prepared by Metropolitan, show the region's ability to respond in future years under a repeat of the 1990-1992 hydrology, that is, in the case of multiple-dry years. The results show that the region can provide reliable water supplies under a series of multiple-dry years. A similar analysis using the historic hydrology of 1977, the single driest hydrologic year to date, shows that the region can provide reliable water supplies under a single-dry year.

As described above, imported water supplies from TVMWD and CIC are expected to be 100 percent reliable to meet demands. Therefore, the purchased water supply projections for a normal water year, single-dry year, and multiple-dry years are taken as the 2035 projection, which is equivalent to the imported water demand projected for 2035. It is assumed that the single-dry year and multiple-dry year supplies are the same as those for the normal years because TVMWD and CIC have stated that they will meet their retailer's projected demands under all anticipated hydrologic conditions. Moreover, the single-dry year and multiple-dry year available supplies are significantly higher than the projected supplies required to meet the demands.

Metropolitan and TVMWD have indicated their plans to continue to implement projects to ensure the imported water demands can be met under normal, single-dry year, and multiple-dry years. As discussed above, Metropolitan intends to provide 100 percent supply reliability to TVMWD, which in turn will provide 100 percent reliability of imported water supply to the San Dimas System.

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 beyond 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 TVMWD. 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 though 2035 (Metropolitan, 2010).

Table 6-1: Supply Reliability for the San Dimas 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, TVMWD	14,241	14,241	14,241	14,241	14,241
Purchased water, CIC	60	60	60	60	60
Groundwater, Main San Gabriel Basin	3,306	3,306	3,306	3,306	3,306
Surface Diversion	500	500	500	500	500
Total	18,107	18,107	18,107	18,107	18,107
Percent of Normal		100%	100%	100%	100%

Note:
Table format based on DWR Guidebook Table 28.

Table 6-2 lists single-dry year and multiple-dry year periods for both groundwater and purchased water supplies. The single-dry year and multiple-dry year periods are based on TVMWD's (which are based on Metropolitan's) analysis on the lowest average precipitation for a single year and the lowest average precipitation for a consecutive multiple-year period, respectively. Utilizing the computer model that considers over 80 years of historical records for each water source, Metropolitan has indicated that 1977 is the single-dry year and the years of 1990, 1991 and 1992 are representative of the driest three consecutive years for Metropolitan supplies. TVMWD has determined that it can meet projected water demands for imported water and groundwater for these years, so the supply is equal to the projected demands.

The climatic vulnerability for the groundwater supply is only based on the change of the OSY of the Main San Gabriel Groundwater Basin. The San Gabriel Basin Watermaster adjusts the OSY annually to account for fluctuations in groundwater availability in the San Gabriel Basin. Annual reductions from 2005 to 2009 in the San Gabriel Basin OSY have placed 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. Groundwater level management in the Main San Gabriel Basin by the Watermaster will help increase reliability of the groundwater supply. Estimates of the supply reliability for the San Dimas System also are derived from historical values (1999 through 2010) of the operating safe yield.

The San Dimas System has pumped between 1,958 ac-ft/yr and 5,347 ac-ft/yr for the past 5 years. It is projected the San Dimas System will pump annual amounts of approximately 3,306 ac-ft/yr between 2010 and 2035.

Table 6-2: Basis of Water Year Data		
Water Year Type	**Base Year(s)**	**Historical Sequence**
Normal Water Year	N/A[(1)]	1922-2004
Single-Dry Water Year	1977	
Multiple-Dry Water Years	1990-1992	

Notes:
1. Normal Water Year calculated from median precipitation from WY 1922 – WY 2004.
2. Table format based on DWR Guidebook Table 27.

6.1.5 Factors Resulting in Inconsistency of Supply

Table 6-3 presents factors that could potentially result in inconsistency of supply for the San Dimas System. As described above, GSWC's groundwater rights are adjudicated and its lease rights are contractual.

Groundwater extractions in the San Gabriel Basin are regulated by the Watermaster. Annually, the Watermaster establishes basin-wide pumping limits based on local hydrologic conditions and groundwater levels within the basins. The Watermaster may raise or lower pumping limits annually in the San Gabriel Basin.

Table 6-3: Factors Resulting in Inconsistency of Supply				
Name of Supply	**Legal**	**Environmental**	**Water Quality**	**Climatic**
TVMWD and CIC	N/A	N/A	N/A	N/A
Groundwater, Main San Gabriel Groundwater 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 San Dimas System.

Table 6-4: Comparison of Projected Normal Year Supply and Demand					
	2015	**2020**	**2025**	**2030**	**2035**
Water Supply Total (ac-ft/yr)	14,829	15,809	16,648	17,451	18,107
Water Demand Total (ac-ft/yr)	14,829	15,809	16,648	17,451	18,107
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 San Dimas 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)	14,829	15,809	16,648	17,451	18,107
Demand Total (ac-ft/yr)	14,829	15,809	16,648	17,451	18,107
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 for the San Dimas System. It is assumed that the multiple-dry year water supplies are the same as those for the normal years because Metropolitan (through TVMWD) intends to meet projected purchased 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. TVMWD and CIC have determined that they can meet projected water demands for multiple-dry years, so the water supply is projected to equal the demand.

Table 6-6 demonstrates that the water supplies are sufficient to meet the projected water demand for each multiple-dry year period because:

- TVMWD and CIC have determined that they can meet projected water demands for the multiple-dry year periods (see Chapter 3), and;
- Groundwater from the Main San Gabriel Groundwater Basin is expected to be 100 percent reliable in multiple-dry years.

It should be noted that the active connection capacity to deliver purchased water is significantly higher than the projected purchased water supply that is needed to meet these demands. Therefore, the purchased water supply is generally expected to be much greater than the expected projected water demands during multiple-dry years.

In summary, GSWC, Metropolitan, CIC and TVMWD have implemented and will continue to implement projects to ensure the purchased 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	13,666	13,666	0	0%	0%
2014	14,247	14,247	0	0%	0%
2015	14,829	14,829	0	0%	0%
2016					
2017					
2018	15,417	15,417	0	0%	0%
2019	15,613	15,613	0	0%	0%
2020	15,809	15,809	0	0%	0%
2021					
2022					
2023	16,312	16,312	0	0%	0%
2024	16,480	16,480	0	0%	0%
2025	16,648	16,648	0	0%	0%
2026					
2027					
2028	17,130	17,130	0	0%	0%
2029	17,290	17,290	0	0%	0%
2030	17,451	17,451	0	0%	0%
2031					
2032					
2033	17,844	17,844	0	0%	0%
2034	17,976	17,976	0	0%	0%
2035	18,107	18,107	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.

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Chapter 7: Conservation Program and Demand Management Measures

This Chapter addresses the water conservation requirements of the Act for the San Dimas 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. In order to facilitate efficient BMP reporting for GSWC across service areas spread throughout California, several BMP "Reporting Units" were established. The San Dimas BMP Reporting Unit is equivalent to the San Dimas System.

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 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(1)
				B	Residential plumbing retrofit
		3.2	Landscape water survey	A	Water survey programs for single-family residential and multi-family residential customers(1)
		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 Dimas System. 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 Dimas System CUWCC BMP coverage report for 2009 through 2010 is included as Appendix C and supplements the summary of BMP implementation activities provided in this chapter.

GSWC is progressing towards implementing all Foundational BMPs required in the revised MOU and UWMP Act. The Programmatic BMPs are currently being implemented through the gpcd compliance option for the San Dimas Reporting Unit. 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 the San Dimas Reporting Unit. GSWC also partners on conservation activities with its wholesale water suppliers, including Metropolitan, and TVMWD. GSWC's customers are eligible for of 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 San Dimas 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, 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. 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 0.06.

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.

Table 7-2: Water Loss Control Evaluation Summary		
Report Year	**Prescreen Completed**	**Prescreen Result**
2006	No	--
2007	Yes	94.5%
2008	Yes	99.5%
2009	Yes	92.9%

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. The water audit for calendar year 2010 will be completed by mid-2011.

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 of the San Dimas System 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 Dimas System are charged volumetrically. In addition, effective December 2010, GSWC has implemented a third tier of conservation pricing rate structure for residential customers, as approved by the CPUC for Region III, including the San Dimas System customers. 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 Dimas 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 Dimas 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 Region III 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

Public information programs for San Dimas System customers. For 2010, GSWC had an annual budget of $3,982 for public education and outreach. 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 Metropolitan's website for detailed information. Outreach activities completed between 2006 and 2010 are summarized in Table 7-3.

Table 7-3: Outreach Activities

Item	2006	2007	2008	2009	2010
Contacts with the Media/Paid Advertising	3	5	3	4	4
Bill Inserts / Newsletters / Brochures	2	3	2	4	4
Bill showing water usage in comparison to previous year's usage	Yes	Yes	Yes	Yes	Yes
Demonstration Garden Tours	0	0	0	0	0
Special Events, Media Events	5	3	1	0	0
Speaker's Bureau	3	1	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 San Dimas System elementary schools as implemented by The Discovery Science Center, with a 2010 annual budget of $19,000. 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 assignment 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 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.

Table 7-4: School Education Activities

	2006	2007	2008	2009	2010
Presentations	13	4	2	-	-
Grade	4^{th} – 12^{th}	4^{th} – 6^{th}	4^{th} – 6^{th}	-	-
Number of students	548	440	713	336	1227

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.

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 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 the San Dimas System's demand.

7.4 Programmatic DMMs

GSWC intends to continue to comply with the MOU using the gpcd compliance approach for the San Dimas System. The baseline gpcd is equal to the average annual potable water gpcd for the years 1997 through 2006. This approach requires the purveyor to submit biennial gpcd target reports to the CUWCC. The biennial targets are computed by multiplying the agency's baseline gpcd by the applicable reduced target, as a percentage. The targets will gradually decrease to 82 percent of the baseline in 2018. This approach allows the purveyor to choose which programs they would like to implement, as long as the combined water savings attributable to these programs is sufficient to meet their biennial gpcd targets. The gpcd

compliance option water savings targets are comparable to those required by SBX7-7, as detailed in Section 7.5.

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.

The gpcd compliance option does not require specific implementation plans for each programmatic BMP, and the following descriptions of current program offerings are provided for information purposes only. Water savings estimates are also not available for each program, as implementation levels have not been defined under the gpcd compliance option requirements. Most of the Programmatic DMMs described below for the San Dimas System are implemented by Metropolitan. Additional detailed description of Metropolitan's programs can be found in Metropolitan's 2010 UWMP.

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) 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). 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.

7.4.1.2 Landscape Water Surveys

GSWC identifies high-water use SF and MF customers throughout the company and contacts them to offer free landscape water audits. To date, customers have not requested these audits.

7.4.1.3 High-Efficiency Clothes Washers

GSWC customers are eligible to participate in the HECW rebate program administered 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 webpage for San Dimas advertises the rebates and provides a link to the Metropolitan website for full program details.

7.4.1.4 WaterSense Specification (WSS) Toilets

San Dimas System customers have been eligible to participate in the High Efficiency Toilet (HET) rebate program administered by Metropolitan since 1998, including ultra-low-flush toilet 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). Ultra-low-flush toilets 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 San Dimas advertises the rebates and provides a link to the Metropolitan website for full details.

7.4.1.5 Water Sense 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.

7.4.1.6 Commercial, Industrial, and Institutional DMMs

The Commercial, Industrial, and Institutional BMPs are implemented by Metropolitan on behalf of GSWC. San Dimas System customers are eligible to participate in Metropolitan's CII program, Save Water, 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, and 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.

7.4.1.7 Large Landscape

GSWC's landscape program consists of identifying and contacting high-use customers, providing information and offering water use surveys, voluntary water use budgets, and landscape training. While the program is available to all customers free of charge, none have chosen to participate. The introduction of tiered rates in late 2009 is expected to generate increased participation as is the funding mechanism that will allow for increased resources for program marketing.

7.5 SBX7-7 Compliance Approach

The SBX7-7 water use baseline for the San Dimas system is 231 gpcd and the 2020 compliance goal is 185 gpcd as documented in Chapter 3. The CUWCC gpcd compliance option requires 18 percent water use reduction by 2018 (see Appendix C for detailed calculations), which is consistent with the SBX7-7 20 percent water savings by 2020 target. For this reason, the same compliance strategy will be implemented to meet both SBX7-7 and the MOU targets.

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. Overall, these factors have contributed to a 12 percent decline in per capita water use over the past 3 years from 214 gpcd in 2008 to an estimated 189 gpcd in 2010. The San Dimas System currently is on track to satisfy its SBX7-7 and MOU goals and GSWC will focus on maintaining these savings over the next 10 years.

However, if the gpcd begins to increase to previous levels, GSWC's ongoing commitment to complying with the Council MOU and implementation of all BMPs should provide sufficient water savings to meet the 46 gpcd water savings required. GSWC will assess implementation of a suite of programs over the next 2 to 3 years to meet conservation targets companywide, potentially providing further reductions. Implementation levels and specific program offerings will vary by system depending on system goals, existing programs, 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 over all 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. A number of the programs that will be considered by GSWC to meet SBX7-7 requirements combine financial incentives, regulations, and information elements that build on current activities. Specific programs that may be implemented by 2014 on a company-wide basis include:

Conservation Pricing

GSWC is in the process of filing a General Rate Case application to increase volumetric charges for residential and CII metered customers in its systems. If approved, increased tiered rates for residential and uniform rates for CII accounts 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. HECWs rebates: Clothes washer rebates are already being implemented by SMUD 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 evaluate 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 will continue to implement and utilize 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.

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 TVMWD and GSWC, where funding levels, incentives and particular measures change from year to year. To continue benefiting customers, GSWC will take advantage of applicable partnership programs that will make conservation programs more efficient and cost effective.

Chapter 8: Water Shortage Contingency Plan

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 San Dimas 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. Implementation of the actions is dependent upon approval of the CPUC, especially for implementing mandatory water use restriction. CPUC has jurisdiction over GSWC because GSWC is an investor-owned water utility. Section 357 of the California Water Code requires that suppliers subject to regulation by the CPUC secure its

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, that are 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 existing water supply sources.

Table 8-2 summarizes the minimum volume of water available from each existing 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 purchased water will meet that portion of projected water demands under all anticipated hydrologic conditions.

GSWC's supply is expected to be 100 percent reliable from 2011 to 2013. This reliability is a result of:

- The projected reliability of TVMWD as members of Metropolitan, which expects to be 100 percent reliable,
- a reliable water supply from CIC,
- a reliable water source from surface water diversion from San Dimas Canyon Creek and,
- GSWC's share of the Operating Safe Yield (OSY) in the Main San Gabriel Groundwater Basin (see Chapters 4 and 6 for details).

The TVMWD's potential resources that add the reliability for the San Dimas System include:

- Increased local conservation and water recycling,
- improvements in the reliability of imported supplies,
- increased regional surplus storage capacity, and
- increased conjunctive-use groundwater programs.

Table 8-2: Three-Year Estimated Minimum Water Supply in ac-ft/yr				
Source	**2011**	**2012**	**2013**	**2010 Average Year**
Purchased water from TVMWD / CIC	8,697	9,278	9,860	8,002
Groundwater	3,806	3,806	3,806	3,920
Recycled water	-	-	-	0
Total	12,503	13,084	13,666	11,922

Note:
This table is based on the 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	• Isolate areas that will take the longest to repair and/or present a public health threat. Arrange to provide emergency water. • Establish water distribution points and ration water if necessary. • If water service is restricted, attempt to provide potable water tankers or bottled water to the area. • Make arrangements to conduct bacteriological tests, in order to determine possible contamination. • Utilize backup power supply to operate pumps in conjunction with elevated storage.
Earthquake	• Assess the condition of the water supply system. • Complete the damage assessment checklist for reservoirs, water treatment plants, wells and boosters, system transmission and distribution. • Coordinate with Cal EMA utilities group or fire district to identify immediate fire fighting needs. • Isolate areas that will take the longest to repair and/or present a public health threat. Arrange to provide emergency water. • 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. • Take actions to preserve storage. • Determine any health hazard of the water supply and issue any “Boil Water Order” or “Unsafe Water Alert” notification to the customers, if necessary. • Cancel the order or alert information after completing comprehensive water quality testing. • Make arrangements to conduct bacteriological tests, in order to determine possible contamination.
Malevolent acts	• Assess threat or actual intentional contamination of the water system. • Notify local law enforcement to investigate the validity of the threat. • Get notification from public health officials if potential water contamination • Determine any health hazard of the water supply and issue any “Boil Water Order” or “Unsafe Water Alert” notification to the customers, if necessary. • Assess any structural damage from an intentional act. • Isolate areas that will take the longest to repair and or present a public health threat. Arrange to provide emergency water.

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.

Table 8-4: Summary of Mandatory Prohibitions

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

California Department of Water Resources (DWR). 2011. *Guidebook to Assist Water Suppliers to Prepare a 2010 Urban Water Management Plan*. March 2011.

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Appendix A

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.

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

Public Hearing Notices, Notifications, and Meeting Minutes

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

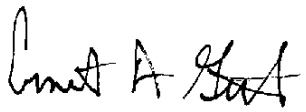
Claremont Customer Service Center
689 West Foothill Blvd., Suite D
Claremont, CA 91711

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



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:

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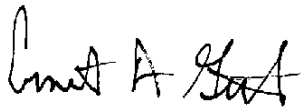
GOLDEN STATE WATER COMPANY



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

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San Dimas, CA 91773

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

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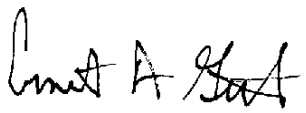
201 E. Bonita Avenue
San Dimas, CA 91773

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

Very truly yours,
GOLDEN STATE WATER COMPANY



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

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San Dimas, CA 91773

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San Dimas, CA 91773

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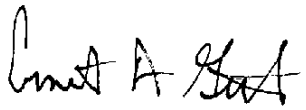
GOLDEN STATE WATER COMPANY



Ernest A. Gisler
Planning Manager

Golden State
Water Company
A Subsidiary of American States Water Company

May 17, 2011

County of Los Angeles
Richard Brudckner
Director Department of Regional Planning
320 West Temple Street
Los Angeles, CA 900121

Subject: Notification of Public Hearing for the 2010 Urban Water Management Plan (UWMP)
Golden State Water Company – San Dimas System

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 system: San Dimas. The UWMP 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

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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

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:

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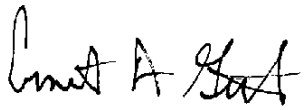

Ernest A. Gisler
Planning Manager

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 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.

CNS-2102177
Published: May 17, 2011
San Gabriel Valley Tribune

Ad#201573

50

A0000022453 89

(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 22nd day of June, 2011

Signature

12/22/9

* A 0 0 0 0 0 0 2 2 5 8 0 6 0 *

Proof of Publication of

Golden State
Water Company
A Subsidiary of American States Water Company

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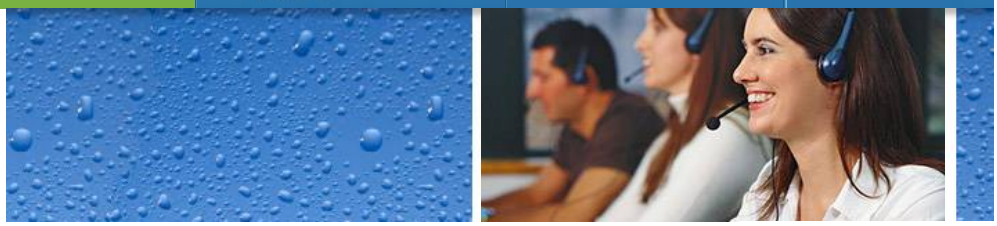
Claremont Customer Service Office
689 West Foothill Blvd., Ste. D
Claremont, CA 91711

For more information about Golden State Water Company, visit www.gswater.com.

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

2/19207



Customer Service Home Page
Find Local Office Information
Payment Options
Understanding Your Bill
How to Read Your Meter
Definitions and Terminology
Frequently Asked Questions
New Customer Brochure

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)

Find Local Office Information » San Dimas

San Dimas Customer Service Area

Areas Serviced
This Customer Service Area serves approximately 15,900 customers in portions of Charter Oaks, Covina, Glendora, La Verne, San Dimas, and Walnut

Office Location
San Dimas CSA
121 Exchange Place
San Dimas, CA 91773

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

WATER CONSERVATION TIPS

Use a broom instead of a hose to clean driveways and sidewalks and save 150 gallons or more each time.

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 Dimas 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 Dimas 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 Dimas Customer Service Area to Encourage Water Use Efficiency

GSWC residential customers in the utility's San Dimas 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.

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 Dimas 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.

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)

Visit Golden State Water Company's
Demonstration Garden in San Dimas

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.

Golden State Water Company's
Water Shortage Plan
for San Dimas Customers

Golden State Water Company developed a water shortage plan (Schedule 14.1) for its San Dimas 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 Claremont customers are voluntary, allocation forms will not be processed at this time.

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 Dimas 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.
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.
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.
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.

WATER QUALITY ANNUAL REPORT

San Dimas

For 24-hour emergency and customer service, please call: 1-800-999-4033 or 877-933-9533 TTY (hearing impaired)
customerservice@gswater.com

Website design by NetPilot Web Solutions

No Meeting Minutes were taken since there was no attendance by the public.

Appendix C

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 Dimas **CUWCC Unit #:** 5044
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	**229**
GPCD Target for 2018	231

Year	Report	Target		Highest Acceptable Bound	
		% Base	GPCD	% Base	GPCD
2010	1	96.4%	272	100%	282
2012	2	92.8%	261	96%	272
2014	3	89.2%	251	93%	261
2016	4	85.6%	241	89%	251
2018	5	82.0%	231	82%	231

Not on Track if 2010 GPCD is > than target

GPCD in 201	229
Highest Acceptable GPCD for	282

On Track

Agency: Golden State Water Company **District Name:** San Dimas **CUWCC Unit #:** 5044
Retail

CUWCC BMP RETAIL COVERAGE REPORT 2009-2010

Foundation Best Management Practices for Urban Water Efficiency

Foundational BMPs

BMP 1.1 Operational Practices

Conservation Coordinator provided with necessary resources to implement BMPs?

		2009	2010
1.Conservation Coordinator provided with necessary resources to implement BMPs?	Name	Albert Frias	Albert Frias
	Title	Water Conservation Coordinator	Water Conservation Coordinator
	Email		
		On Track	On Track

2. Water waste prevention documentation

Descriptive File	Rule 20 = Water Conservation. Rule 11B = Discontinuance of Service based upon Water Wastage. R	On Track if any one of the 6 ordinance actions done, plus documentation or links provided
Descriptive File 2010		
URL	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. http://www.aswater.com/Organization/Rates_and_Regulations/Rates_and_Tariffs/Rule_11.pdf	
URL 2010		
Describe Ordinance Terms	On Track On Track	

Agency: Golden State Water Company **District Name:** San Dimas **CUWCC Unit #:** 5044
Retail

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	#REF!		
Verifiable Other Uses	#REF!		
Total Supply	#REF!		
(Metered Sales + System uses)/ Total Supply >0.89	#REF!	#REF!	On Track if =>.89, Not on Track if No
If ratio is less than 0.9, complete a full scale Audit in 2009?	#REF!		On Track if Yes
Verify Data with Records on File?	#REF!	#REF!	On Track if Yes
Operate a system Leak Detection Program?	#REF!	#REF!	On Track if Yes

		2010		
Compile Standard Water Audit using AWWA Software?		Yes	On Track	On Track if Yes, Not on Track if No
AWWA file provided to CUWCC?	Yes		On Track	On Track if Yes, Not on Track if No
AWWA Water Audit Validity Score?		84		Info only until 2012
Completed Training in AWWA Audit Method?		Yes		
Completed Training in Component Analysis Process?		No		Info only until 2012
Complete Component Analysis?		No		Info only until 2012
Repaired all leaks and breaks to the extent cost effective?		Yes	On Track	On Track if Yes, Not on Track if No
Locate and repair unreported leaks to the extent cost effective.		Yes	On Track	On Track if Yes, Not on Track if No
Maintain a record-keeping system for the repair of reported leaks, including time of report, leak location, type of leaking pipe segment or fitting, and leak running time from report to repair.		Yes		Info only until 2012

Provided 7 types of Water Loss Control Info

Leaks Repaired	Value Real Losses	Value Apparent Losses	Miles Surveyed	Press Reduction	Cost of Interventions	Water Saved
18	$1,540.00	$1,540.00	38			41

Info only until 2012

Agency: Golden State Water Company **District Name:** San Dimas **CUWCC Unit #:** 5044
Retail

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

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.

	2008	2009		2010		
Exemption or 'At least as Effective As' accepted by CUWCC						
Numbered Unmetered Accounts		0	On Track	0	On Track	On Track if no unmetered accounts
Metered Accounts billed by volume of use		Yes	On Track	Yes	On Track	Volumetric billing required for all connections on same schedule as metering
Number of CII accounts with Mixed Use meters		150		149		Info only
Conducted a feasibility study to assess merits of a program to provide incentives to switch mixed-use accounts to dedicated landscape meters?		No		No		Info only until 2012
Feasibility Study provided to CUWCC?		No	On Track until 2012	No	On Track until 2012	On Track if Yes, Not on Track if No
Completed a written plan, policy or program to test, repair and replace meters		Yes	On Track	Yes	On Track	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 Dimas **CUWCC Unit #:** 5044
Retail

Primary Contact John Turner **Email:** johnturner@gswater.com

1.4 Retail Conservation Pricing

On Track if: Increasing Block, Uniform, Allocation, Standby Service; Not on Track if otherwise

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
	On Track			On Track	

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 1July 2010. If signed MOU after 31 Dec. 1997, implementation starts no later than 1July 2013, or within seven years of signing the MOU,

Agency: Golden State Water Company **District Name:** San Dimas **CUWCC Unit #:** 5044
Retail

CUWCC BMP RETAIL COVERAGE REPORT 2009-2010

Foundation Best Management Practices for Urban Water Efficiency

Adequacy of Volumetric Rates) for Agencies with No Unmetered Accounts

Customer Class	2009 Rate Type	2009 Volumetric Revenues $1000s	2010 Rate Type	2010 Volumetric Revenues $1000s
Single-Family	Increasing Block	$ 6,262	Single-Family	$ 6,301
Multi-Family	Increasing Block	$ 63	Multi-Family	$ 64
Commercial	Uniform	$ 3,368	Commercial	$ 3,389
Industrial	Uniform	$ 50	Industrial	$ 50
Institutional	Uniform	$ 704	Institutional	$ 709
Dedicated Irrigation		$ 256		$ 258
Other		$ 66		$ 66
Total Revenue Commodity Charges (V):		$ 10,769		$ 10,836
Total Revenue Fixed Charges (M):		$ 6,285		$ 6,324
Calculate: V / (V + M):		63%		63%
		Info Only untill 2011		Info Only untill 2011

Agency Choices for rates:

A) Agencies signing MOU prior to 13 June2007, implementation starts 1 July2007: On Track if (V / (V + M) ≥ 70% x .8 = **56% for 2009** and 70%x0.90 = **63% for 2010**; Not on track if (V / (V + M)) < 70%;

B) Use Canadian model. Agencies signing MOU after 13June2007, implementation starts July 1 of year following signing.

Canadian Water & Wastewater Rate Design Model Used and Provided to CUWCC	**No**	**No**
If Canadian Model is used, was 1 year or 3 year period applied?	Info Only untill 2011	Info Only untill 2011

Wastewater Rates

	2009		2010
Does Agency Provide Sewer Service?	**No**	If 'No', then wastewater rate info not required.	**No**

Customer Class	2009 Rate Type	Conserving Rate?	Customer Class	2010 Rate Type	Conserving Rate?
		Yes			Yes
		Yes			Yes
		Yes			Yes
		Yes			Yes
		Yes			Yes
		Yes			Yes
		Yes			Yes
		On Track			On Track

On Track if: 'Increasing Block', 'Uniform', 'based on long term marginal cost' or 'next unit of capacity'

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

	2009	2010	
Does a wholesale agency implement Public Outrach Programs for this unility's benefit?	Yes	Yes	Yes/No
Names of Wholesale Agencies	Metropolitan Water District of Los Angeles, Orange County Municipal Water District	Metropolitan Water District of Los Angeles, Orange County Municipal Water District	
1) Contacts with the public (minimum = 4 times per year)	25	25	
2) Water supplier contacts with media (minimum = 4 times per year, i.e., at least quarterly).	4	4	
3) 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')
4) Description of materials used to meet minimum requirement.	Newspaper contacts	Newspaper contacts	
5) Annual budget for public outreach program.	$ 3,982	$ 3,982	
6) Description of all other outreach programs			
	On Track	On Track	

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

	2009	2010	
Does a wholesale agency implement School Education Programs for this unility's benefit?	No	No	
Name of Wholesale Supplier?	No School Education Program	No School Education Program	
1) Curriculum materials developed and/or provided by agency		0	Yes/ No
2) Materials meet state education framework requirements and are grade-level appropriate?			All 5 actions types implemented and reported to CUWCC to be 'On
3) Materials Distributed to K-6?			
Describe K-6 Materials		0	Describe materials to meet minimum requirements Info Only
Materials distributed to 7-12 students?			
4) Annual budget for school education program.	$ -		
	Not On Track	Not On Track	

Appendix D

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 impeding 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. (T)

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.

(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)

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 dicontinued. Notice will be in as prescribed in subdivision (a) above, and in Rules Nos. 5 and 8. (T)

(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)

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. (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 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)

(Continued)

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)

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.

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)

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)

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

GENERAL INFORMATION

(N)

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)

(Continued)

RULE 14.1
WATER CONSERVATION AND RATIONING PLAN

GENERAL INFORMATION (Continued) (N)

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)

RULE 14.1
WATER CONSERVATION AND RATIONING PLAN

GENERAL INFORMATION (Continued)

(N)

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.

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

(N)

STAGED MANDATORY RATIONING OF WATER USAGE (Continued)

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

(N)

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)

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 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 reusage 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)

Appendix E

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:	Per Meter Per Month
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) (N) (N) (N)

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:	Per Meter Per Month
For 5/8 x 3/4-inch meter.....	$ 21.45
For 3/4-inch meter.....	32.15
For 1-inch meter.....	53.55
For 1 1/2 inch meter.....	107.00
For 2-inch meter.....	171.00
For 3-inch meter.....	321.00
For 4-inch meter.....	536.00
For 6-inch meter.....	1,071.00
For 8-inch meter.....	1,714.00
For 10-inch meter.....	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 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) (N) (N)

AWWA WLCC Water Audit Software: Reporting Worksheet

WASv3.0

Back to Instructions

? Click to access definition

Water Audit Report for: Golden State Water Company - San Dimas
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:	M	5,368.000	acre-ft/yr	
Master meter error adjustment:	E	0.000	under-registered	acre-ft/yr
Water imported:	M	8,651.000	acre-ft/yr	
Water exported:		0.000	acre-ft/yr	
WATER SUPPLIED:		14,019.000	acre-ft/yr	

AUTHORIZED CONSUMPTION

Click here: ? for help using option buttons below

				Pcnt:	Value:
Billed metered:	M	13,782.000	acre-ft/yr		
Billed unmetered:		0.000	acre-ft/yr		
Unbilled metered:	E	5.000	acre-ft/yr		
Unbilled unmetered:		175.238	acre-ft/yr	1.25%	
AUTHORIZED CONSUMPTION:		13,962.238	acre-ft/yr		

Use buttons to select percentage OR value

				Pcnt:	Value:
WATER LOSSES (Water Supplied - Authorized Consumption)		56.763	acre-ft/yr		
Apparent Losses					
Unauthorized consumption:		35.048	acre-ft/yr	0.25%	
Customer metering inaccuracies:		0.000	acre-ft/yr		
Systematic data handling errors:		0.000	acre-ft/yr		
Apparent Losses:		35.048	acre-ft/yr		
Real Losses					
Real Losses = (Water Losses - Apparent Losses):		21.715	acre-ft/yr		
WATER LOSSES:		56.763	acre-ft/yr		

NON-REVENUE WATER

NON-REVENUE WATER:	237.000	acre-ft/yr	

SYSTEM DATA

Length of mains:		221.6	miles	
Number of active AND inactive service connections:		16,366		
Connection density:		74	conn./mile main	
Average length of customer service line:	E	25.0	ft	(pipe length between curbstop and customer meter or property boundary)
Average operating pressure:		82.0	psi	

COST DATA

Total annual cost of operating water system:	**$12,035,622**	$/Year	
Customer retail unit cost (applied to Apparent Losses):	**$46.46**	$/100 cubic feet (ccf)	
Variable production cost (applied to Real Losses):	**$536.00**	$/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:
  - **3 as measured values**
  - **3 as estimated values**
  - **2 as default values**
  - **10 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:	1.7%
Non-revenue water as percent by cost:	6.8%
Annual cost of Apparent Losses:	$709,290
Annual cost of Real Losses:	$11,639

Operational Efficiency Indicators

Apparent Losses per service connection per day:	1.91	gallons/connection/day
Real Losses per service connection per day*:	1.18	gallons/connection/day
Real Losses per length of main per day*:	N/A	
Real Losses per service connection per day per psi pressure:	0.01	gallons/connection/day/psi
? Unavoidable Annual Real Losses (UARL):	126.75	million gallons/year
? Infrastructure Leakage Index (ILI) [Real Losses/UARL]:	0.06	

* only the most applicable of these two indicators will be calculated

Appendix F

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

Ralph B. Helm
Suite 214
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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

AMENDED JUDGMENT
TABLE OF CONTENTS

And
Amended Judgment Sections
Identified With Prior Judgment
Section Numbers

EXHIBITS

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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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 Hearing: August 24, 1989 Department 38, 9:00 A.M.

The Petition of the MAIN SAN GABRIEL BASIN WATERMASTER for this AMENDED JUDGMENT herein, came on regularly for hearing in this Court before the HONORABLE FLORENCE T. PICKARD, ASSIGNED JUDGE PRESIDING, on August 24, 1989; Ralph B. Helm appeared as attorney for Watermaster - Petitioner; and good cause appearing, the following ORDER and AMENDED JUDGMENT are, hereby, made:

I. INTRODUCTION

1. Pleadings, Parties, and Jurisdiction. The complaint herein was filed on January 2, 1968, seeking an adjudication of water rights. By amendment of said complaint and dismissals of certain parties, said adjudication was limited to the Main San Gabriel Basin and its Relevant Watershed. Substantially all

defendants and the cross-defendant have appeared herein, certain defaults have been entered, and other defendants dismissed. By the pleadings herein and by Order of this Court, the issues have been made those of a full inter se adjudication of water rights as between each and all of the parties. This Court has jurisdiction of the subject matter of this action and of the parties herein.

2. Stipulation for Entry of Judgment. A substantial majority of the parties, by number and by quantity of rights herein Adjudicated, Stipulated for entry of a Judgment in substantially the form of the original Judgment herein.

3. Lis Pendens. (New) A Lis Pendens was recorded August 20, 1970, as Document 2650, in Official Records of Los Angeles County, California, in Book M 3554, Page 866.

4. Findings and Conclusions. (Prior Judgment Section 3) Trial was had before the Court, sitting without a jury, John Shea, Judge Presiding, commencing on October 30, 1972, and Findings of Fact and Conclusions of Law have been entered herein.

5. Judgment. (New) Judgment (and Exhibits Thereto), Findings of Fact and Conclusions of Law (and Exhibits thereto), Order Appointing Watermaster, and Initial Watermaster Order were signed and filed December 29, 1972, and Judgment was entered January 4, 1973, in Book 6791, Page 197.

6. Intervention After Judgment. (New) Certain defendants have, pursuant to the Judgment herein and the Court's continuing jurisdiction, intervened and appeared herein after entry of Judgment.

7. Amendments to Judgment. (New) The original Judgment herein was previously amended on March 29, 1979, by: (1) adding definition (r [1]) thereto, (2) amending definition (bb) therein, (3) adding Exhibit "K" thereto, (4) adding Sections 14.5 and 16.5 thereto, and (5) amending Sections 37(b), 37(c), 37(d), and Section 47 therein; it was again amended on December 21, 1979, by amending Section 38(c) thereof; again amended on February 21, 1980, by amending Section 24 thereof; again amended on September 12, 1980, by amending Sections 35(a), 37(a), and 38(a); again amended on December 22, 1987, by adding Section 37(e) thereto; and last amended on July 22, 1988 by amending Section 37(e) thereof and Ordering an Amended Judgment herein.

8. Transfers. (New) Since the entry of Judgment herein there have been numerous transfers of Adjudicated water rights. To the date hereof, said transfers are reflected in Exhibits "C", "D", and "E".

9. Producers and Their Designees. (New) The current status of Producers and their Designees is shown on Exhibit "L".

10. Definitions. (Prior Judgment Section 4) As used in this Judgment, the following terms shall have the meanings herein set forth:

(a) Base Annual Diversion Right -- The average annual quantity of water which a Diverter is herein found to have the right to Divert for Direct Use.

(b) Direct Use --Beneficial use of water other than for spreading or Ground Water recharge.

(c) Divert or Diverting -- To take waters of any surface stream within the Relevant Watershed.

(d) Diverter -- Any party who Diverts.

(e) Elevation -- Feet above mean sea level.

(f) Fiscal Year -- A period July 1 through June 30, following.

(g) Ground Water -- Water beneath the surface of the ground and within the zone of saturation.

(h) Ground Water Basin -- An interconnected permeable geologic formation capable of storing a substantial Ground Water supply.

(i) Integrated Producer -- Any party that is both a Pumper and a Diverter, and has elected to have its rights adjudicated under the optional formula provided in Section 18 of this Judgment.

(j) In-Lieu Water Cost -- The differential between a Producer's non-capital cost of direct delivery of Supplemental Water and the cost of Production of Ground Water (including depreciation on Production facilities) to a particular Producer who has been required by Watermaster to take direct delivery of Supplemental Water in lieu of Ground Water.

(k) Key Well -- Baldwin Park Key Well, being elsewhere designated as State Well No. 1S/10W-7R2, or Los Angeles County Flood Control District Well No. 3030-F. Said well has a ground surface Elevation of 386.7.

(l) Long Beach Case -- Los Angeles Superior Court Civil Action No. 722647, entitled, "Long Beach, et al., v. San Gabriel Valley Water Company, et al."

(m) Main San Gabriel Basin or Basin -- The Ground Water Basin underlying the area shown as such on Exhibit "A".

(n) Make-up Obligation -- The total cost of meeting the obligation of the Basin to the area at or below Whittier Narrows, pursuant to the Judgment in the Long Beach Case.

(o) Minimal Producer -- Any party whose Production in any Fiscal Year does not exceed five (5) acre feet.

(p) Natural Safe Yield -- The quantity of natural water supply which can be extracted annually from the Basin under conditions of long term average annual supply, net of the requirement to meet downstream rights as determined in the Long Beach Case (exclusive of Pumped export), and under cultural conditions as of a particular year.

(q) Operating Safe Yield -- The quantity of water which the Watermaster determines hereunder may be Pumped from the Basin in a particular Fiscal Year, free of the Replacement Water Assessment under the Physical Solution herein.

(r) Overdraft -- A condition wherein the total annual Production from the Basin exceeds the Natural Safe Yield thereof.

(s) Overlying Rights -- (Prior Judgment Section 4 (r) [1]) The right to Produce water from the Basin for use on Overlying Lands, which rights are exercisable only on specifically defined Overlying Lands and which cannot be separately conveyed or transferred apart therefrom.

(t) Physical Solution -- (Prior Judgment Section 4 (s)) The Court decreed method of managing the waters of the Basin so as to achieve the maximum utilization of the Basin and its water supply, consistent with the rights herein declared.

(u) Prescriptive Pumping Right -- (Prior Judgment

Section 4 (t)) The highest continuous extractions of water by a Pumper from the Basin for beneficial use in any five (5) consecutive years after commencement of Overdraft and prior to filing of this action, as to which there has been no cessation of use by that Pumper during any subsequent period of five (5) consecutive years, prior to the said filing of this action.

(v) Produce or Producing -- (Prior Judgment Section 4 (u)) To Pump or Divert water.

(w) Producer -- (Prior Judgment Section 4 (v)) A party who Produces water.

(x) Production -- (Prior Judgment Section 4 (w)) The annual quantity of water Produced, stated in acre feet.

(y) Pump or Pumping -- (Prior Judgment Section 4 (x)) To extract Ground Water from the Basin by Pumping or any other method.

(z) Pumper -- (Prior Judgment Section 4 (y)) Any party who Pumps water.

(aa) Pumper's Share -- (Prior Judgment Section 4 (z)) A Pumper's right to a percentage of the entire Natural Safe Yield, Operating Safe Yield and appurtenant Ground Water storage.

(bb) Relevant Watershed -- (Prior Judgment Section 4(aa)) That portion of the San Gabriel River watershed tributary to Whittier Narrows which is shown as such on Exhibit "A", and the exterior boundaries of which are described in Exhibit "B".

(cc) Replacement Water -- (Prior Judgment Section 4 (bb)) Water purchased by Watermaster to replace:

(1) Production in excess of a Pumper's Share of Operating Safe Yield; (2) The consumptive use portion resulting from the exercise of an Overlying Right; and (3) Production in excess of a Diverter's right to Divert for Direct Use.

(dd) Responsible Agency -- (Prior Judgment Section 4 (cc)) The municipal water district which is the normal and appropriate source from whom Watermaster shall purchase Supplemental Water for replacement purposes under the Physical Solution, being one of the following:

(1) Upper District -- Upper San Gabriel Valley Municipal Water District, a member public agency of The Metropolitan Water District of Southern California (MWD).

(2) San Gabriel District -- San Gabriel Valley Municipal Water District, which has a direct contract with the State of California for State Project Water.

(3) Three Valleys District -- Three Valleys Municipal Water District, formerly, "Pomona Valley Municipal Water District", a member public agency of MWD.

(ee) Stored Water -- (Prior Judgment Section 4 (dd)) Supplemental Water stored in the Basin pursuant to a contract with Watermaster as authorized by Section 34(m).

(ff) Supplemental Water -- (Prior Judgment Section 4 (ee)) Nontributary water imported through a Responsible Agency.

(gg) Transporting Parties -- (Prior Judgment Section 4 (ff)) Any party presently transporting water (i.e., during the 12 months immediately preceding the making of the findings herein) from the Relevant Watershed or Basin to an area outside

thereof, and any party presently or hereafter having an interest in lands or having a service area outside the Basin or Relevant Watershed contiguous to lands in which it has an interest or a service area within the Basin or Relevant Watershed. Division by a road, highway, or easement shall not interrupt contiguity. Said term shall also include the City of Sierra Madre, or any party supplying water thereto, so long as the corporate limits of said City are included within one of the Responsible Agencies and if said City, in order to supply water to its corporate area from the Basin, becomes a party to this action bound by this Judgment.

(hh) Water Level -- (Prior Judgment Section 4 (gg)) The measured Elevation of water in the Key Well, corrected for any temporary effects of mounding caused by replenishment or local depressions caused by Pumping.

(ii) Year -- (Prior Judgment Section 4 (hh)) A calendar year, unless the context clearly indicates a contrary meaning.

11. Exhibits. (Prior Judgment Section 5) The following exhibits are attached to this Judgment and incorporated herein by this reference:

Exhibit "A" -- Map entitled "San Gabriel River Watershed Tributary to Whittier Narrows", showing the boundaries and relevant geologic and hydrologic features in the portion of the watershed of the San Gabriel River lying upstream from Whittier Narrows.

Exhibit "B" -- Boundaries of Relevant Watershed.

Exhibit "C" -- Table Showing Base Annual Diversion

Rights of Certain Diverters.

Exhibit "D" -- Table Showing Prescriptive Pumping Rights and Pumper's Share of Each Pumper.

Exhibit "E" -- Table Showing Production Rights of Each Integrated Producer.

Exhibit "F" -- Table Showing Special Category Rights.

Exhibit "G" -- Table Showing Non-consumptive Users.

Exhibit "H" -- Watermaster Operating Criteria.

Exhibit "J" -- Puente Narrows Agreement.

Exhibit "K" -- Overlying Rights, Nature of Overlying Right, Description of Overlying Lands to which Overlying Rights are Appurtenant, Producers Entitled to Exercise Overlying Rights and their Respective Consumptive Use Portions, and Map of Overlying Lands.

Exhibit "L" -- (New) List of Producers And Their Designees, as of June 1988.

Exhibit "M" -- (New) Watermaster Members, Officers and Staff, Including Calendar Year 1989.

II. DECREE

NOW, THEREFORE, IT IS HEREBY DECLARED, ORDERED, ADJUDGED AND DECREED:

A. DECLARATION OF HYDROLOGIC CONDITIONS

12. Basin as Common Source of Supply. (Prior Judgment Section 6) The area shown on Exhibit "A" as Main San Gabriel Basin overlies a Ground Water basin. The Relevant Watershed is the watershed area within which rights are herein adjudicated. The waters of the Basin and Relevant Watershed constitute a common source of natural water supply to the parties herein.

13. Determination of Natural Safe Yield. (Prior Judgment Section 7) The Natural Safe Yield of the Main San Gabriel Basin is found and declared to be one hundred fifty-two thousand seven-hundred (152,700) acre feet under Calendar Year 1967 cultural conditions.

14. Existence of Overdraft. (Prior Judgment Section 8) In each and every Calendar Year commencing with 1953, the Basin has been and is in Overdraft.

B. DECLARATION OF RIGHTS

15. Prescription. (Prior Judgment Section 9) The use of water by each and all parties and their predecessors in interest has been open, notorious, hostile, adverse, under claim of right, and with notice of said overdraft continuously from January 1, 1953 to January 4, 1973. The rights of each party herein declared are prescriptive in nature. The following aggregate consequences of said prescription within the Basin and Relevant Watershed are hereby declared:

(a) Prior Prescription. Diversions within the Relevant Watershed have created rights for direct consumptive use within the Basin, as declared and determined in Sections 16 and 18 hereof, which are of equal priority inter se, but which are prior and paramount to Pumping Rights in the Basin.

(b) Mutual Prescription. The aggregate Prescriptive Pumping Rights of the parties who are Pumpers now exceed, and for many years prior to filing of this action, have exceeded, the Natural Safe Yield of the Basin. By reason of said condition, all rights of said Pumpers are declared

to be mutually prescriptive and of equal priority, inter se.

(c) Common Ownership of Safe Yield and Incidents Thereto. By reason of said Overdraft and mutual Prescription, the entire Natural Safe Yield of the Basin, the Operating Safe Yield thereof and the appurtenant rights to Ground Water storage capacity of the Basin are owned by Pumpers in undivided Pumpers' Shares as hereinafter individually declared, subject to the control of Watermaster, pursuant to the Physical Solution herein decreed. Nothing herein shall be deemed in derogation of the rights to spread water pursuant to rights set forth in Exhibit "G".

16. Surface Rights. (Prior Judgment Section 10) Certain of the aforesaid prior and paramount prescriptive water rights of Diverters to Divert for Direct Use stream flow within the Relevant Watershed are hereby declared and found in terms of Base Annual Diversion Right as set forth in Exhibit "C". Each Diverter shown on Exhibit "C" shall be entitled to Divert for Direct Use up to two hundred percent (200%) of said Base Annual Diversion Right in any one (1) Fiscal Year; provided that the aggregate quantities of water Diverted in any consecutive ten (10) Fiscal Year period shall not exceed ten (10) times such Diverter's Base Annual Diversion Right.

17. Ground Water Rights. (Prior Judgment Section 11) The Prescriptive Pumping Right of each Pumper, who is not an Integrated Producer, and his Pumper's Share are declared as set forth in Exhibit "D".

18. Optional Integrated Production Rights. (Prior Judgment Section 12) Those parties listed on Exhibit "E" have elected to be treated as Integrated Producers. Integrated Production Rights have two (2) historical components:

(1) a fixed component based upon historic Diversions for Direct Use; and

(2) a mutually prescriptive Pumper's Share component based upon Pumping during the period 1953 through 1967.

Assessment and other Watermaster regulation of the rights of such parties shall relate to and be based upon each such component. So far as future exercise of such rights is concerned, however, the gross quantity of the aggregate right in any Fiscal Year may be exercised, in the sole discretion of such party, by either Diversion or Pumping or any combination or apportionment thereof; provided, that for Assessment purposes the first water Produced in any Fiscal Year (other than "carry-over", under Section 49 hereof) shall be deemed an exercise of the Diversion component, and any Production over said quantity shall be deemed Pumped water, regardless of the actual method of Production.

19. Special Category Rights. (Prior Judgment Section 13) The parties listed on Exhibit "F" have water rights in the Relevant Watershed which are not ordinary Production rights. The nature of each such right is as described in Exhibit "F".

20. Non-consumptive Practices. (Prior Judgment Section 14) Certain Producers have engaged in Water Diversion and spreading practices which have caused such Diversions to have a

non-consumptive or beneficial impact upon the aggregate water supply available in the Basin. Said parties, and a statement of the nature of their rights, uses and practices, are set forth in Exhibit "G". The Physical Solution decreed herein, and particularly its provisions for Assessments, shall not apply to such non-consumptive uses. Watermaster may require reports on the operations of said parties.

21. Overlying Rights. (Prior Judgment Section 14.5) Producers listed in Exhibit "K" hereto were not parties herein at the time of the original entry of Judgment herein. They have exercised in good faith Overlying Rights to Produce water from the Basin during the periods subsequent to the entry of Judgment herein and have by self-help initiated or maintained appurtenant Overlying Rights. Such rights are exercisable without quantitative limit only on specifically described Overlying Land and cannot be separately conveyed or transferred apart therefrom. As to such rights and their exercise, the owners thereof shall become parties to this action and be subject to Watermaster Replacement Water Assessments under Section 45 (b) hereof, sufficient to purchase Replenishment Water to offset the net consumptive use of such Production and practices. In addition, the gross amount of such Production for such overlying use shall be subject to Watermaster Administrative Assessments under Section 45 (a) hereof and the consumptive use portion of such Production for overlying use shall be subject to Watermaster's In-Lieu Water Cost Assessments under Section 45 (d) hereof. The Producers presently entitled to exercise Overlying Rights, a description of the Overlying Land to which

Overlying Rights are appurtenant, the nature of use and the consumptive use portion thereof are set forth in Exhibit "K" hereto. Watermaster may require reports and make inspections of the operations of said parties for purposes of verifying the uses set forth in said Exhibit "K", and, in the event of a material change, to redetermine the net amount of consumptive use by such parties as changed in the exercise of such Overlying Rights. Annually, during the first two (2) weeks of June in each Calendar Year, such Overlying Rights Producers shall submit to Watermaster a verified statement as to the nature of the then current uses of said Overlying Rights on said Overlying Lands for the next ensuing Fiscal Year, whereupon Watermaster shall either affirm the prior determination or redetermine the net amount of the consumptive use portion of the exercise of such Overlying Right by said Overlying Rights Producer.

C. INJUNCTION

22. Injunction Against Unauthorized Production. (Prior Judgment Section 15) Effective July 1, 1973, each and every party, its officers, agents, employees, successors and assigns, to whom rights to waters of the Basin or Relevant Watershed have been declared and decreed herein is ENJOINED AND RESTRAINED from Producing water for Direct Use from the Basin or the Relevant Watershed except pursuant to rights and Pumpers' Shares herein decreed or which may hereafter be acquired by transfer pursuant to Section 55, or under the provisions of the Physical Solution in this Judgment and the Court's continuing jurisdiction, provided that no party is enjoined from Producing up to five (5) acre feet per Fiscal Year.

23. Injunction re Non-consumptive Uses. (Prior Judgment Section 16) Each party listed in Exhibit "G", its officers, agents, employees, successors and assigns, is ENJOINED AND RESTRAINED from materially changing said non-consumptive method of use.

24. Injunction Re Change in Overlying Use Without Notice Thereof To Watermaster. (Prior Judgment Section 16.5) Each party listed in Exhibit "K", its officers, agents, employees, successors and assigns, is ENJOINED AND RESTRAINED from materially changing said overlying uses at any time without first notifying Watermaster of the intended change of use, in which event Watermaster shall promptly redetermine the consumptive use portion thereof to be effective after such change.

25. Injunction Against Unauthorized Recharge. (Prior Judgment Section 17) Each party, its officers, agents, employees, successors and assigns, is ENJOINED AND RESTRAINED from spreading, injecting or otherwise recharging water in the Basin except pursuant to: (a) an adjudicated non-consumptive use, or (b) consent and approval of or Cyclic Storage Agreement with Watermaster, or (c) subsequent order of this Court.

26. Injunction Against Transportation From Basin or Relevant Watershed. (Prior Judgment Section 18) Except upon further order of Court, all parties, other than Transporting Parties and MWD in its exercise of its Special Category Rights, to the extent authorized therein, are ENJOINED AND RESTRAINED from transporting water hereafter Produced from the Relevant Watershed or Basin outside the areas thereof. For purposes of

this Section, water supplied through a city water system which lies chiefly within the Basin shall be deemed entirely used within the Basin. Transporting Parties are entitled to continue to transport water to the extent that any Production of water by any such party does not violate the injunctive provisions contained in Section 22 hereof; provided that said water shall be used within the present service areas or corporate or other boundaries and additions thereto so long as such additions are contiguous to the then existing service area or corporate or other boundaries; except that a maximum of ten percent (10%) of use in any Fiscal Year may be outside said then existing service areas or corporate or other boundaries.

D. CONTINUING JURISDICTION

27. Jurisdiction Reserved. (Prior Judgment Section 19) Full jurisdiction, power and authority are retained by and reserved to the Court for purposes of enabling the Court upon application of any party or of the Watermaster, by motion and upon at least thirty (30) days notice thereof, and after hearing thereon, to make such further or supplemental orders or directions as may be necessary or appropriate for interim operation before the Physical Solution is fully operative, or for interpretation, enforcement or carrying out of this Judgment, and to modify, amend or amplify any of the provisions of this Judgment or to add to the provisions thereof consistent with the rights herein decreed. Provided, that nothing in this paragraph shall authorize:

(1) modification or amendment of the quantities specified in the declared rights of any party;

(2) modification or amendment of the manner of exercise of the Base Annual Diversion Right or Integrated Production Right of any party; or

(3) the imposition of an injunction prohibiting transportation outside the Relevant Watershed or Basin as against any Transporting Party transporting in accordance with the provisions of this Judgment or against MWD as to its Special Category Rights.

E. WATERMASTER

28. Watermaster to Administer Judgment. (Prior Judgment Section 20) A Watermaster comprised of nine (9) persons, to be nominated as hereinafter provided and appointed by the Court, shall administer and enforce the provisions of this Judgment and any subsequent instructions or orders of the Court thereunder.

29. Qualification, Nomination and Appointment. (Prior Judgment Section 21) The nine (9) member Watermaster shall be composed of six (6) Producer representatives and three (3) public representatives qualified, nominated and appointed as follows:

(a) Qualification. Any adult citizen of the State of California shall be eligible to serve on Watermaster; provided, however, that no officer, director, employee or agent of Upper District or San Gabriel District shall be qualified as a Producer member of Watermaster.

(b) Nomination of Producer Representatives. A meeting of all parties shall be held at the regular meeting of Watermaster in November of each year, at the offices of Watermaster. Nomination of the six (6) Producer

representatives shall be by cumulative voting, in person or by proxy, with each Producer entitled to one (1) vote for each one hundred (100) acre feet, or portion thereof, of Base Annual Diversion Right or Prescriptive Pumping Right or Integrated Production Right.

(c) Nomination of Public Representatives. On or before the regular meeting of Watermaster in November of each year, the three (3) public representatives shall be nominated by the boards of directors of Upper District (which shall select two [2]) and San Gabriel District (which shall select one [1]). Said nominees shall be members of the board of directors of said public districts.

(d) Appointment. All Watermaster nominations shall be promptly certified to the Court, which will in ordinary course confirm the same by an appropriate order appointing said Watermaster; provided, however, that the Court at all times reserves the right and power to refuse to appoint, or to remove, any member of Watermaster.

30. Term and Vacancies. (Prior Judgment Section 22) Each member of Watermaster shall serve for a one (1) year term commencing on January 1, following his appointment, or until his successor is appointed. In the event of a vacancy on Watermaster, a successor shall be nominated at a special meeting to be called by Watermaster within ninety (90) days (in the case of a Producer representative) or by action of the appropriate district board of directors (in the case of a public representative).

31. Quorum. (Prior Judgment Section 23) Five (5) members

of the Watermaster shall constitute a quorum for the transaction of affairs of the Watermaster. Action by the affirmative vote of five (5) members shall constitute action by Watermaster, except that the affirmative vote of six (6) members shall be required:

(a) to approve the purchase, spreading or injection of water for Ground Water recharge, or

(b) to enter in any Agreement pursuant to Section 34 (m) hereof.

32. Compensation. (Prior Judgment Section 24) Each Watermaster member shall receive compensation of One Hundred Dollars ($100.00) per day for each day's attendance at meetings of Watermaster or for each day's service rendered as a Watermaster member at the request of Watermaster, together with any expenses incurred in the performance of his duties required or authorized by Watermaster. No member of the Watermaster shall be employed by or compensated for professional services rendered by him to Watermaster, other than the compensation herein provided, and any authorized travel or related expense.

33. Organization. (Prior Judgment Section 25) At its first meeting in each year, Watermaster shall elect a chairman and a vice chairman from its membership. It shall also select a secretary, a treasurer and such assistant secretaries and assistant treasurers as may be appropriate, any of whom may, but need not be, members of Watermaster.

(a) Minutes. Minutes of all Watermaster meetings shall be kept which shall reflect all actions taken by Watermaster. Draft copies thereof shall be furnished to

any party who files a request therefor in writing with Watermaster. Said draft copies of minutes shall constitute notice of any Watermaster action therein reported; failure to request copies thereof shall constitute waiver of notice.

(b) Regular Meetings. Watermaster shall hold regular meetings at places and times to be specified in Watermaster's rules and regulations to be adopted by Watermaster. Notice of the scheduled or regular meetings of Watermaster and of any changes in the time or place thereof shall be mailed to all parties who shall have filed a request therefor in writing with Watermaster.

(c) Special Meetings. Special meetings of Watermaster may be called at any time by the chairman or vice chairman or by any three (3) members of Watermaster by written notice delivered personally or mailed to each member of Watermaster and to each party requesting notice, at least twenty-four (24) hours before the time of each such meeting in the case of personal delivery, and forty-eight (48) hours prior to such meeting in the case of mail. The calling notice shall specify the time and place of the special meeting and the business to be transacted at such meeting. No other business shall be considered at such meeting.

(d) Adjournments. Any meeting of Watermaster may be adjourned to a time and place specified in the order of adjournment. Less than a quorum may so adjourn from time to time. A copy of the order or notice of adjournment

shall be conspicuously posted on or near the door of the place where the meeting was held within twenty-four (24) hours after adoption of the order of adjournment.

34. Powers and Duties. (Prior Judgment Section 26) Subject to the continuing supervision and control of the Court, Watermaster shall have and may exercise the following express powers, and shall perform the following duties, together with any specific powers, authority and duties granted or imposed elsewhere in this Judgment or hereafter ordered or authorized by the Court in the exercise of its continuing jurisdiction.

(a) Rules and Regulations. To make and adopt any and all appropriate rules and regulations for conduct of Watermaster affairs. A copy of said rules and regulations and any amendments thereof shall be mailed to all parties.

(b) Acquisition of Facilities. To purchase, lease, acquire and hold all necessary property and equipment; provided, however, that Watermaster shall not acquire any interest in real property in excess of year-to-year tenancy for necessary quarters and facilities.

(c) Employment of Experts and Agents. To employ such administrative personnel, engineering, geologic, accounting, legal or other specialized services and consulting assistants as may be deemed appropriate in the carrying out of its powers and to require appropriate bonds from all officers and employees handling Watermaster funds.

(d) Measuring Devices, etc. To cause parties, pursuant to uniform rules, to install and maintain in good

operating condition, at the cost of each party, such necessary measuring devices or meters as may be appropriate; and to inspect and test any such measuring device as may be necessary.

(e) Assessments. To levy and collect all Assessments specified in the Physical Solution.

(f) Investment of Funds. To hold and invest any and all funds which Watermaster may possess in investments authorized from time to time for public agencies in the State of California.

(g) Borrowing. To borrow in anticipation of receipt of Assessment proceeds an amount not to exceed the annual amount of Assessments levied but uncollected.

(h) Purchase of and Recharge with Supplemental Water. To purchase Supplemental Water and to introduce the same into the Basin for replacement or cyclic storage purposes, subject to the affirmative vote of six (6) members of Watermaster.

(i) Contracts. To enter into contracts for the performance of any administrative powers herein granted, subject to approval of the Court.

(j) Cooperation With Existing Agencies. To act jointly or cooperate with agencies of the United States and the State of California or any political subdivision, municipality or district to the end that the purposes of the Physical Solution may be fully and economically carried out. Specifically, in the event Upper District has facilities available and adequate to accomplish any of the

administrative functions of Watermaster, consideration shall be given to performing said functions under contract with Upper District in order to avoid duplication of facilities.

(k) Assumption of Make-up Obligation. Watermaster shall assume the Make-up Obligation for and on behalf of the Basin.

(m) Water Quality. Water quality in the Basin shall be a concern of Watermaster, and all reasonable steps shall be taken to assist and encourage appropriate regulatory agencies to enforce reasonable water quality regulations affecting the Basin, including regulation of solid and liquid waste disposal.

(n) Cyclic Storage Agreements. To enter into appropriate contracts, to be approved by the Court, for utilization of Ground Water storage capacity of the Basin for cyclic or regulatory storage of Supplemental Water by parties and non-parties, for subsequent recovery or Watermaster credit by the storing entity, pursuant to uniform rules and conditions, which shall include provision for:

(1) Watermaster control of all spreading or injection and extraction scheduling and procedures for such stored water;

(2) calculation by Watermaster of any special costs, damages or burdens resulting from such operations;

(3) determination by Watermaster of, and

accounting for, all losses in stored water, assuming that such stored water floats on top of the Ground Water supplies, and accounting for all losses of water which otherwise would have replenished the Basin, with priorities being established as between two or more such contractors giving preference to parties over non-parties; and

(4) payment to Watermaster for the benefit of the parties hereto of all special costs, damages or burdens incurred (without any charge, rent, assessment or expense as to parties hereto by reason of the adjudicated proprietary character of said storage rights, nor credit or offset for benefits resulting from such storage); provided, that no party shall have any direct interest in or control over such contracts or the operation thereof by reason of the adjudicated right of such party, the Watermaster having sole custody and control of all Ground Water storage rights in the Basin pursuant to the Physical Solution herein, and subject to review of the Court.

(o) Notice List. Maintain a current list of party designees to receive notice hereunder, in accordance with Section 54 hereof.

35. Policy Decisions -- Procedure. (Prior Judgment Section 27) It is contemplated that Watermaster will exercise discretion in making policy decisions relating to Basin management under the Physical Solution decreed herein. In order to assure full participation and opportunity to be heard for

those affected, no policy decision shall be made by Watermaster until thirty (30) days after the question involved has been raised for discussion at a Watermaster meeting and noted in the draft of minutes thereof.

36. Reports. (Prior Judgment Section 28) Watermaster shall annually file with the Court and mail to the parties a report of all Watermaster activities during the preceding year, including an audited statement of all accounts and financial activities of Watermaster, summary reports of Diversions and Pumping, and all other pertinent information. To the extent practical, said report shall be mailed to all parties on or before November 1.

37. Review Procedures. (Prior Judgment Section 29) Any action, decision, rule or procedure of Watermaster (other than a decision establishing Operating Safe Yield, see Section 43[c]) shall be subject to review by the Court on its own motion or on timely motion for an Order to Show Cause by any party, as follows:

(a) Effective Date of Watermaster Action. Any order, decision or action of Watermaster shall be deemed to have occurred on the date that written notice thereof is mailed. Mailing of draft copies of Watermaster minutes to the parties requesting the same shall constitute notice to all such parties.

(b) Notice of Motion. Any party may, by a regularly noticed motion, petition the Court for review of said Watermaster's action or decision. Notice of such motion shall be mailed to Watermaster and all parties. Unless so

ordered by the Court, such petition shall not operate to stay the effect of such Watermaster action.

(c) Time for Motion. Notice of motion to review any Watermaster action or decision shall be served and filed within ninety (90) days after such Watermaster action or decision.

(d) De Novo Nature of Proceeding. Upon filing of such motion for hearing, the Court shall notify the parties of a date for taking evidence and argument, and shall review de novo the question at issue on the date designated. The Watermaster decision or action shall have no evidentiary weight in such proceeding.

(e) Decision. The decision of the Court in such proceeding shall be an appealable Supplemental Order in this case. When the same is final, it shall be binding upon the Watermaster and the parties.

F. PHYSICAL SOLUTION

38. Purpose and Objective. (Prior Judgment Section 30) Consistent with the California Constitution and the decisions of the Supreme Court, the Court hereby adopts and Orders the parties to comply with this Physical Solution. The purpose and objective of these provisions is to provide a legal and practical means for accomplishing the most economic, long term, conjunctive utilization of surface, Ground Water, Supplemental Water and Ground Water storage capacity to meet the needs and requirements of the water users dependent upon the Basin and Relevant Watershed, while preserving existing equities.

39. Need for Flexibility. (Prior Judgment Section 31) In

order that Watermaster may be free to utilize both existing and new and developing technological, social and economic concepts for the fullest benefit of all those dependent upon the Basin, it is essential that the Physical Solution hereunder provide for maximum flexibility and adaptability. To that end, the Court has retained continuing jurisdiction to supplement the broad discretion herein granted to the Watermaster.

40. Watermaster Control. (Prior Judgment Section 32) In order to develop an adequate and effective program of Basin management, it is essential that Watermaster have broad discretion in the making of Basin management decisions within the ambit hereinafter set forth. Withdrawal and replenishment of supplies of the Basin and Relevant Watershed and the utilization of the water resources thereof, and of available Ground Water storage capacity, must be subject to procedures established by Watermaster in implementation of the provisions of this Judgment. Both the quantity and quality of said water resource are thereby preserved and its beneficial utilization maximized.

41. General Pattern of Contemplated Operation. (Prior Judgment Section 33) In general outline (subject to the specific provisions hereafter and to Watermaster Operating Criteria set forth in Exhibit "H"), Watermaster will determine annually the Operating Safe Yield of the Basin and will notify each Pumper of his share thereof, stated in acre feet per Fiscal Year. Thereafter, no party may Produce in any Fiscal Year an amount in excess of the sum of his Diversion Right, if any, plus his Pumper's Share of such Operating Safe Yield, or his

Integrated Production Right, or the terms of any Cyclic Storage Agreement, without being subject to Assessment for the purpose of purchasing Replacement Water. In establishing the Operating Safe Yield, Watermaster shall follow all physical, economic, and other relevant parameters provided in the Watermaster Operating Criteria. Watermaster shall have Assessment powers to raise funds essential to implement the management plan in any of the several special circumstances herein described in more detail.

42. Basin Operating Criteria. (Prior Judgment Section 34) Until further order of the Court and in accordance with the Watermaster Operating Criteria, Watermaster shall not spread Replacement Water when the water level at the Key Well exceeds Elevation two hundred fifty (250), and Watermaster shall spread Replacement Water, insofar as practicable, to maintain the water level at the Key Well above Elevation two hundred (200).

43. Determination of Operating Safe Yield. (Prior Judgment Section 35) Watermaster shall annually determine the Operating Safe Yield applicable to the succeeding Fiscal Year and estimate the same for the next succeeding four (4) Fiscal Years. In making such determination, Watermaster shall be governed in the exercise of its discretion by the Watermaster Operating Criteria. The procedures with reference to said determination shall be as follows:

(a) Preliminary Determination. On or before Watermaster's first meeting in April of each year, Watermaster shall make a Preliminary Determination of the Operating Safe Yield of the Basin for each of the succeeding five Fiscal Years. Said determination shall be

made in the form of a report containing a summary statement of the considerations, calculations and factors used by Watermaster in arriving at said Operating Safe Yield.

(b) Notice and Hearing. A copy of said Preliminary Determination and report shall be mailed to each Pumper and Integrated Producer at least ten (10) days prior to a hearing to be held at Watermaster's regular meeting in May, of each year, at which time objections or suggested corrections or modifications of said determinations shall be considered. Said hearing shall be held pursuant to procedures adopted by Watermaster.

(c) Watermaster Determination and Review Thereof. Within thirty (30) days after completion of said hearing, Watermaster shall mail to each Pumper and Integrated Producer a final report and determination of said Operating Safe Yield for each such Fiscal Year, together with a statement of the Producer's entitlement in each such Fiscal Year stated in acre feet. Any affected party, within thirty (30) days of mailing of notice of said Watermaster determination, may, by a regularly noticed motion, petition the Court for an Order to Show Cause for review of said Watermaster finding, and thereupon the Court shall hear such objections and settle such dispute. Unless so ordered by the Court, such petition shall not operate to stay the effect of said report and determination. In the absence of such review proceedings, the Watermaster determination shall be final.

44. Reports of Pumping and Diversion. (Prior Judgment

Section 36) Each party (other than Minimal Producers) shall file with the Watermaster quarterly, on or before the last day of January, April, July and October, a report on a form to be prescribed by Watermaster showing the total Pumping and Diversion (separately for Direct Use and for non-consumptive use, if any,) of such party during the preceding calendar quarter.

45. Assessments -- Purpose. (Prior Judgment Section 37) Watermaster shall have the power to levy and collect Assessments from the parties (other than Minimal Producers, non-consumptive users, or Production under Special Category Rights or Cyclic Storage Agreements) based upon Production during the preceding Fiscal Year. Said Assessments may be for one or more of the following purposes:

(a) Watermaster Administration Costs. Within thirty (30) days after completion of the hearing on the Preliminary Determination of the Operating Safe Yield of the Basin and Watermaster's determination thereof, pursuant to Section 43 hereof, Watermaster shall adopt a proposed budget for the succeeding Fiscal Year and shall mail a copy thereof to each party, together with a statement of the level of Administration Assessment levied by Watermaster which will be collected for purposes of raising funds for said budget. Said Assessment shall be uniformly applicable to each acre foot of Production.

(b) Replacement Water Costs. Replacement Water Assessments shall be collected from each party on account of such party's Production in excess of its Diversion

Rights, Pumper's Share or Integrated Production Right, and on account of the consumptive use portion of Overlying Rights, computed at the applicable rate established by Watermaster consistent with the Watermaster Operating Criteria.

(c) Make-Up Obligation. An Assessment shall be collected equally on account of each acre foot of Production, which does not bear a Replacement Assessment hereunder, to pay all necessary costs of Administration and satisfaction of the Make-Up Obligation. Such Assessment shall not be applicable to water Production for an Overlying Right.

(d) In-Lieu Water Cost. Watermaster may levy an Assessment against all Pumping to pay reimbursement for In-Lieu Water Costs except that such Assessment shall not be applicable to the non-consumptive use portion of an Overlying Right.

(e) Basin Water Quality Improvement. For purposes of testing, protecting or improving the water quality in the Basin, Watermaster may, after a noticed hearing thereon, fix terms and conditions under which it may waive all or any part of its Assessments on such ground water Production and if such Production, in addition to his other Production, does not exceed such Producer's Share or entitlement for that Fiscal Year, such stated Production shall be allowed to be carried over for a part of such Producer's next Fiscal Year's Producer's Share or entitlement. In connection therewith, Watermaster may also

waive the provisions of Sections 25, 26 and 57 hereof, relating to Injunction Against Unauthorized Recharge, Injunction Against Transportation From Basin or Relevant Watershed, and Intervention After Judgment, respectively. Nothing in this Judgment is intended to allow an increase in any Producer's annual entitlement nor to prevent Watermaster, after hearing thereon, from entering into contracts to encourage, assist and accomplish the clean up and improvement of degraded water quality in the Basin by non-parties herein. Such contracts may include the exemption of the Production of such Basin water therefor from Watermaster Assessments and, in connection therewith, the waiver of the provisions of Judgment Sections 25, 26, and 57 hereof.

46. Assessments -- Procedure. (Prior Judgment Section 38) Assessments herein provided for shall be levied and collected as follows:

(a) Levy and Notice of Assessment. Within thirty (30) days of Watermaster's annual determination of Operating Safe Yield of the Basin for each Fiscal Year and succeeding four (4) Fiscal Years, Watermaster shall levy applicable Administration Assessments, Replacement Water Assessments, Make-up Water Assessments and In-Lieu Water Assessments, if any. Watermaster shall give written notice of all applicable Assessments to each party on or before August 15, of each year.

(b) Payment. Each Assessment shall be payable, and each party is Ordered to pay the same, on or before

September 20, following such Assessment, subject to the rights reserved in Section 37 hereof.

(c) Delinquency. Any Assessment which becomes delinquent after January 1, 1980, shall bear interest at the annual prime rate plus one percent (1%) in effect on the first business day of August of each year. Said prime interest rate shall be that fixed by the Bank of America NT&SA for its preferred borrowing customers on said date. Said prime interest rate plus one percent (1%) shall be applicable to any said delinquent Assessment from the due date thereof until paid. Provided, however, in no event shall any said delinquent Assessment bear interest at a rate of less than ten percent (10%) per annum. Such delinquent Assessment and interest may be collected in a Show Cause proceeding herein or any other legal proceeding instituted by Watermaster, and in such proceeding the Court may allow Watermaster its reasonable costs of collection, including attorney's fees.

47. Availability of Supplemental Water From Responsible Agencies. (Prior Judgment Section 39) If any Responsible Agency shall, for any reason, be unable to deliver Supplemental Water to Watermaster when needed, Watermaster shall collect funds at an appropriate level and hold them in trust, together with interest accrued thereon, for purchase of such water when available.

48. Accumulation of Replacement Water Assessment Proceeds. (Prior Judgment Section 40) In order to minimize fluctuation in Assessments and to give Watermaster flexibility in Basin

management, Watermaster may make reasonable accumulations of Replacement Water Assessments. Such moneys and any interest accrued thereon shall only be used for the purchase of Replacement Water.

49. Carry-over of Unused Rights. (Prior Judgment Section 41) Any Pumper's Share of Operating Safe Yield, and the Production right of any Integrated Producer, which is not Produced in a given Fiscal Year may be carried over and accumulated for one Fiscal Year, pursuant to reasonable rules and procedures for notice and accounting which shall be adopted by Watermaster. The first water Produced in the succeeding Fiscal Year shall be deemed Produced pursuant to such Carry-over Rights.

50. Minimal Producers. (Prior Judgment Section 42) In the interest of Justice, Minimal Producers are exempted from the operation of this Physical Solution, so long as such party's annual Production does not exceed five (5) acre feet. Quarterly Production reports by such parties shall not be required, but Watermaster may require, and Minimal Producers shall furnish, specific periodic reports. In addition, Watermaster may conduct such investigation of future operations of any Minimal Producer as may be appropriate.

51. Effective Date. (Prior Judgment Section 43) The effective date for commencing accounting and operation under this Physical Solution, other than for Replacement Water Assessments, shall be July 1, 1972. The first Assessment for Replacement Water shall be payable on September 20, 1974, on account of Fiscal Year 1973-74 Production.

G. MISCELLANEOUS PROVISIONS

52. Puente Narrows Flow. (Prior Judgment Section 44) The Puente Basin is tributary to the Main San Gabriel Basin. All Producers within said Puente Basin have been dismissed herein, based upon the Puente Narrows Agreement (Exhibit "J"), whereby Puente Basin Water Agency agreed not to interfere with surface inflow and to assure continuance of historic subsurface contribution of water to Main San Gabriel Basin. The Court declares said Agreement to be reasonable and fair and in full satisfaction of claims by Main San Gabriel Basin for natural water from Puente Basin.

53. San Gabriel District - Interim Order. (Prior Judgment Section 45) San Gabriel District has a contract with the State of California for State Project Water, delivered at Devil Canyon in San Bernardino County. San Gabriel District is HEREBY ORDERED to proceed with and complete necessary pipeline facilities as soon as practical.

Until said pipeline is built and capable of delivering a minimum of twenty-eight thousand eight-hundred (28,800) acre feet of State Project water per year, defendant cities of Alhambra, Azusa, and Monterey Park shall pay to Watermaster each Fiscal Year a Replacement Assessment at a uniform rate sufficient to purchase Replenishment Water when available, which rate shall be declared by San Gabriel District. When water is available through said pipeline, San Gabriel District shall make the same available to Watermaster, on his reasonable demand, at said specified rate per acre foot. Interest accrued on such funds shall be paid to San Gabriel

District.

54. Service Upon and Delivery to Parties of Various Papers. (Prior Judgment Section 46) Service of the Judgment on those parties who have executed the Stipulation for Judgment shall be made by first class mail, postage prepaid, addressed to the Designee and at the address designated for that purpose in the executed and filed counterpart of the Stipulation for Judgment, or in any substitute designation filed with the Court.

Each party who has not heretofore made such a designation shall, within thirty (30) days after the Judgment shall have been served upon that party, file with the Court, with proof of service of a copy thereof upon Watermaster, a written designation of the person to whom and the address at which all future notices, determinations, requests, demands, objections, reports and other papers and processes to be served upon that party or delivered to that party are to be so served or delivered.

A later substitute designation filed and served in the same manner by any party shall be effective from the date of filing as to the then future notices, determinations, requests, demands, objections, reports and other papers and processes to be served upon or delivered to that party.

Delivery to or service upon any party by Watermaster, by any other party, or by the Court, of any item required to be served upon or delivered to a party under or pursuant to the Judgment may be made by deposit thereof (or by copy thereof) in the mail, first class, postage prepaid, addressed to the Designee of the party and at the address shown in the latest

designation filed by that party.

55. Assignment, Transfer, etc., of Rights. (Prior Judgment Section 47) Any rights Adjudicated herein except Overlying Rights, may be assigned, transferred, licensed or leased by the owners thereof; provided however, that no such assignment shall be complete until the appropriate notice procedures established by Watermaster have been complied with. No water Produced pursuant to rights assigned, transferred, licensed, or leased may be transported outside the Relevant Watershed except by:

(1) a Transporting Party, or

(2) a successor in interest immediate or mediate to a water system on lands or portion thereof, theretofore served by such a Transporting Party, for use by such successor in accordance with limitations applicable to Transporting Parties, or

(3) a successor in interest to the Special Category rights of MWD.

The transfer and use of Overlying Rights shall be limited, as provided in Section 21 hereof, as exercisable only on the specifically defined Overlying Lands and they cannot be separately conveyed or transferred apart therefrom.

56. Abandonment of Rights. (Prior Judgment Section 48) It is in the interest of reasonable beneficial use of the Basin and its water supply that no party be encouraged to take and use more water in any Fiscal Year than is actually required. Failure to Produce all of the water to which a party is entitled hereunder shall not, in and of itself, be deemed or constitute

an abandonment of such party's right, in whole or in part. Abandonment and extinction of any right herein Adjudicated shall be accomplished only by:

(1) a written election by the party, filed in this case, or

(2) upon noticed motion of Watermaster, and after hearing.

In either case, such abandonment shall be confirmed by express subsequent order of this Court.

57. Intervention After Judgment. (Prior Judgment Section 49) Any person who is not a party or successor to a party and who proposes to Produce Water from the Basin or Relevant Watershed, may seek to become a party to this Judgment through a Stipulation For Intervention entered into with Watermaster. Watermaster may execute said Stipulation on behalf of the other parties herein but such Stipulation shall not preclude a party from opposing such Intervention at the time of the Court hearing thereon. Said Stipulation For Intervention must thereupon be filed with the Court, which will consider an order confirming said Intervention following thirty (30) days' notice to the parties. Thereafter, if approved by the Court, such Intervenor shall be a party bound by this Judgment and entitled to the rights and privileges accorded under the Physical Solution herein.

58. Judgment Binding on Successors, etc. (Prior Judgment Section 50) Subject to specific provisions hereinbefore contained, this Judgment and all provisions thereof are applicable to and binding upon and inure to the benefit of not

only the parties to this action, but as well to their respective heirs, executors, administrators, successors, assigns, lessees, licensees and to the agents, employees and attorneys in fact of any such persons.

59. Water Rights Permits. (Prior Judgment Section 51) Nothing herein shall be construed as affecting the relative rights and priorities between MWD and San Gabriel Valley Protective Association under State Water Rights Permits Nos. 7174 and 7175, respectively.

60. Costs. (Prior Judgment Section 52) No party shall recover any costs in this proceeding from any other party.

61. Entry of Judgment. (New) The Clerk shall enter this Judgment.

DATED: August 24, 1989.

s/ Florence T. Pickard
Florence T. Pickard, Judge
Specially Assigned

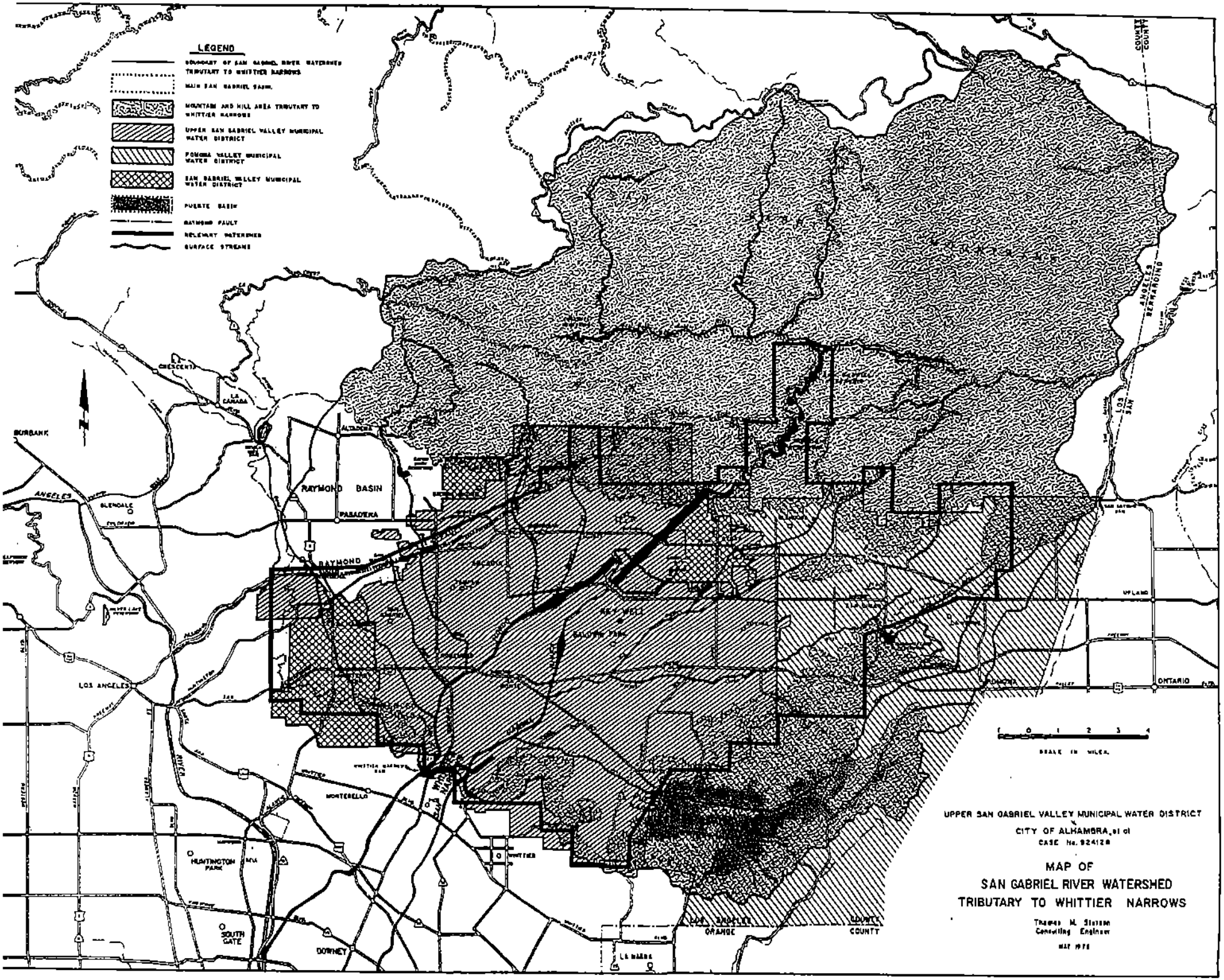

LEGEND
BOUNDARY OF SAN GABRIEL RIVER WATERSHED TRIBUTARY TO WHITTIER NARROWS
MAIN SAN GABRIEL BASIN
MOUNTAIN AND HILL AREA TRIBUTARY TO WHITTIER NARROWS
UPPER SAN GABRIEL VALLEY MUNICIPAL WATER DISTRICT
POMONA VALLEY MUNICIPAL WATER DISTRICT
SAN GABRIEL VALLEY MUNICIPAL WATER DISTRICT
PUENTE BASIN
RAYMOND FAULT
RELEVANT WATERSHED
SURFACE STREAMS
RAYMOND BASIN
PASADENA
ALTADENA
LA CRESCENTA
LA CANADA
BURBANK
GLENDALE
LOS ANGELES
MONTEBELLO
HUNTINGTON PARK
SOUTH GATE
DOWNEY
LA HABRA
ONTARIO
UPLAND
SAN BERNARDINO
ORANGE
COUNTY
SCALE IN MILES
0 1 2 3 4
UPPER SAN GABRIEL VALLEY MUNICIPAL WATER DISTRICT
CITY OF ALHAMBRA, et al
CASE No. 924128
MAP OF
SAN GABRIEL RIVER WATERSHED
TRIBUTARY TO WHITTIER NARROWS
Thomas M. Stetson
Consulting Engineer
MAY 1975

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° 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° 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 Acre-Feet
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	5.52

Exhibit "D"

TABLE
SHOWING PRESCRIPTIVE PUMPING RIGHTS
AND PUMPER'S SHARE OF EACH PUMPER
AS OF JUNE, 1988

Pumper	Prescriptive Pumping Right Acre-feet	Pumper's Share Percent (%)
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	9,252.00	4.68137
(Successor to First National Finance Corporation)	60.90	0.03081
(Transferred to City of Monrovia)	951.00	0.48119
	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

Pumper	Prescriptive Pumping Right Acre-feet	Pumper's Share %
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.)	100.00	0.05060
	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

Pumper	Prescriptive Pumping Right Acre-feet	Pumper's Share %
California Domestic Water Company	11,024.82	5.57839
(Successor to:		
Cantrill Mutual Water Company	42.50	0.02150
Industry Properties, Ltd.	73.50	0.03719
Modern Accent Corporation	256.86	0.12997
Fisher, Russell)	19.00	0.00961
	11,416.68	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.)	1,465.35	0.74144
(Successor to Manning Bros. Rock & Sand Co.)	328.00	0.16596
	1,793.35	0.90740
Consolidated Rock Products Co. (See Conrock Company)	-	-
Corcoran, Jack S. (Held in common with Corcoran, R. L.)		
(Transferred to:	747.00	0.37797
Cadway, Inc.	100.00	0.05060
Cadway, Inc.)	100.00	0.05060
	547.00	0.27677
Corcoran, R. L. (See Corcoran, Jack S.)	-	-
County Sanitation District No. 18 of Los Angeles County	4.50	0.00228

Pumper	Prescriptive Pumping Right Acre-feet	Pumper's Share %
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	2,507.89	1.26895
(Transferred to Covina Irrigating Company)	1,734.00	0.87737
(Transferred to Covina Irrigating Company)	300.00	0.15179
	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	190.00	0.09614
(Successor to Anchor Plating Co., Inc.)	10.00	0.00506
	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

Pumper	Prescriptive Pumping Right Acre-feet	Pumper's Share %
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

Pumper	Prescriptive Pumping Right Acre-feet	Pumper's Share %
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

Pumper	Prescriptive Pumping Right Acre-feet	Pumper's Share %
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.)	375.00	0.18974
(Successor to San Dimas-La Verne Recreational Facilities Authority)	62.50	0.03162
	437.50	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

Pumper	Prescriptive Pumping Right Acre-feet	Pumper's Share %
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 33.40 1,130.40	0.55507 0.01690 0.57197
La Verne, City of (Successor to Fruit Street Water Co.)	250.00 105.71 355.71	0.12650 0.05349 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

Pumper	Prescriptive Pumping Right Acre-feet	Pumper's Share %
Miller Brewing Company	111.01	0.05617
(Successor to:		
Maechtlen, Estate of J. J.	151.50	0.07666
Phillips, Alice B., et al)	50.00	0.02530
	312.51	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	6,677.48	3.37870
(Successor to Los Flores Mutual Water Co.)	26.60	0.01346
	6,704.08	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)	-	-

Pumper	Prescriptive Pumping Right Acre-feet	Pumper's Share %
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	594.00	0.30055
(Successor to Pacific Rock & Gravel Co.)	200.00	0.10120
	794.00	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

Pumper	Prescriptive Pumping Right Acre-feet	Pumper's Share %
San Gabriel Valley Municipal Water District	0	0
San Gabriel Valley Water Company	16,659.00	8.42920
(Successor to:		
Vallecito Water Co.	2,867.00	1.45066
No. 17 Walnut Place Mutual Water Co.)	21.50	0.01088
	19,547.50	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	155.25	0.07855
(Successor to: Associated		
Southern Investment Company)	16.50	0.00835
	171.75	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)	-	-

Pumper	Prescriptive Pumping Right Acre-feet	Pumper's Share %
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.	223.23	0.11295
	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)	-	-

Pumper	Prescriptive Pumping Right Acre-feet	Pumper's Share %
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)	5,775.00	2.92206
(Successor to Park Water Company)	184.01	0.09311
	5,959.01	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

Pumper	Prescriptive Pumping Right Acre-feet	Pumper's Share %
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)	6.00	0.00304
	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.)	840.50	0.42528
Totals for Exhibit "D"	155,800.68	78.83276
Totals from Exhibit "E"	41 833. 75 ~~38,026.25~~	21.16724 ~~19.54431~~
GRAND TOTALS	197,634.43	100.00000

TABLE
SHOWING PRODUCTION RIGHTS
OF EACH
INTEGRATED PRODUCER
AS OF JUNE 1988

Party	Diversion Component Acre-feet	Prescriptive Pumping Component Acre-feet	Pumping Component Share Percent (%)
Azusa Agricultural Water Company	1,000.00	1,732.20	0.87647
Azusa Foot-Hill Citrus Water Company (Transfered 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:	2,514.00	4,140.00	2.09478
City of Covina,		1,734.00	0.87737
City of Covina, and		300.00	0.15179
Taylor Herb Garden)		6.00	0.00304
	2,514.00	6,180.00	3.12698
Glendora, City of (Successor to:	17.00	8,258.00	4.17842
Maechtlen, Estate of J. J.,		150.00	0.07590
Maechtlen, Trust of P. A.,		50.00	0.02530
Ruebhausen, Arline, and	18.34		
Glendora Unified High School District)		9.00	0.05009
	35.34	8,557.00	4.32971
Los Angeles, County of	310.00	3,721.30	1.88292
Maechtlen, Estate of J. J. (Transferred to:	0	301.50	0.15256
City of Glendora		-150.00	-0.07590
Miller Brewing Company)		-151.50	-0.07666
	0	0	0

Party	Diversion Componet Acre-feet	Prescriptive Pumping Component Acre-feet	Pumping Component Share %
Maechtlen, Estate of J. J.	1.49	0	0
Maechtlen, Trust of P. A.	0.50	100.50	0.05085
(Transferred to: City of Glendora		-50.00	-0.02530
Alice B. Phillips, et al)	-0.50	-50.50	-0.02555
	0	0	0
The Metropolitan Water District of Southern California	9.59	165.00	0.08349
Monrovia, City of	1,098.00	5,042.22	2.55129
(Sucessor to: Eckis, Rollin		123.00	0.06224
City of Arcadia)		951.00	0.48119
	1,098.00	6,116.22	3.09472
Monrovia, Nursery Company	239.50	0	0
(Successor to: Azusa Foot-Hill Citrus Co.)	718.50	0	
Phillips, Alice B., et al			
(Successor to: Maechtlen, Trust of P. A.)	0.50	50.50	0.02530
(Transferred to: Miller Brewing Company)		-50.00	-0.02530
	0.50	0.50	0.00025
Southern California Water Company (San Dimas Dist.)	500.00	3,242.53	1.64076
(Formerly California Cities Water Company)			
(Successor to: Namimatsu Farms)		196.00	0.09917
	500.00	3,438.53	1.73984
TOTAL for Exhibit "E"	10,520.92	41,833.75	21.16724

Exhibit "F"

TABLE SHOWING
SPECIAL CATAGORY RIGHTS

PARTY	Nature of Right
The Metropolitan Water District of Southern California	Morris Reservoir Storage and Withdrawal (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 incidential Morris Dam facilities.
Los Angeles County Flood Control District (Now Los Angeles County Department of Public Works)	Puddingstone Reservoir 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

Party	Nature of Right
Covina Irrigating Company Azusa Valley Water Company Azusa Agricultural Water Co. Azusa Foot-Hill Citrus Co. Monrovia Nursery Company	"Committee-of-Nine" Spreading Right 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)	Spreading Right 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	Spreading Right 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	Spreading Right 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	Spreading Right 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	Temporary storage of storm flow for regulatory purposes; Spreading and conservation for general benefit in streambeds, reservoirs and spreading grounds without the right to recapture said water. Maintenance and operation 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

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.

"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.

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

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.

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 _____
EDMUND 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

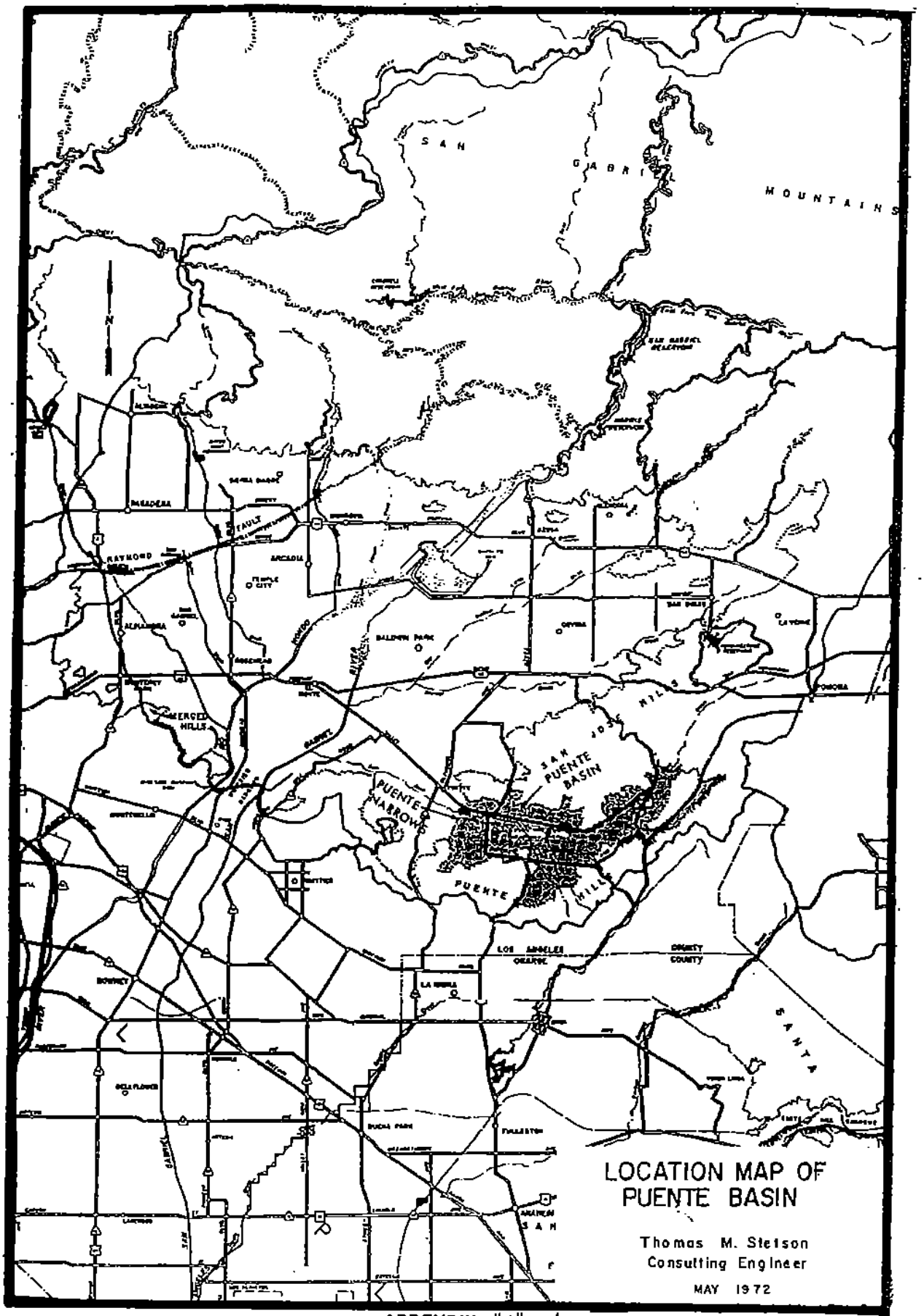
By _____
J. P. BOURDET
Vice President

Approved as to form:

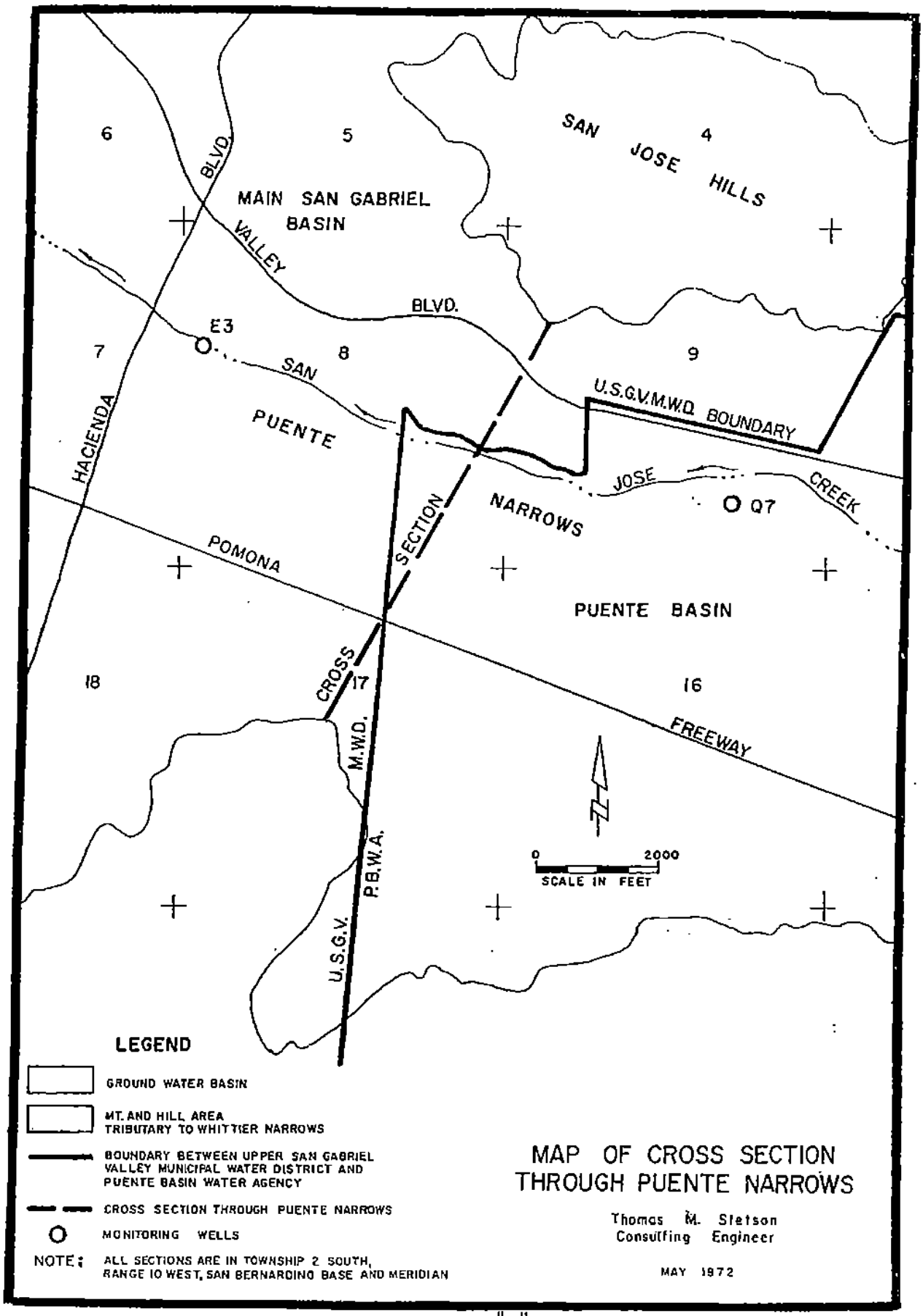
_____
Attorneys for Rowland District

ROWLAND AREA COUNTY WATER DISTRICT

By _____
President
Wm. A. Simmons



APPENDIX "A"
EXHIBIT "J"



MAP OF CROSS SECTION THROUGH PUENTE NARROWS

Thomas M. Stetson
Consulting Engineer

MAY 1972

APPENDIX "B"
EXHIBIT "J"
J - 10

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.

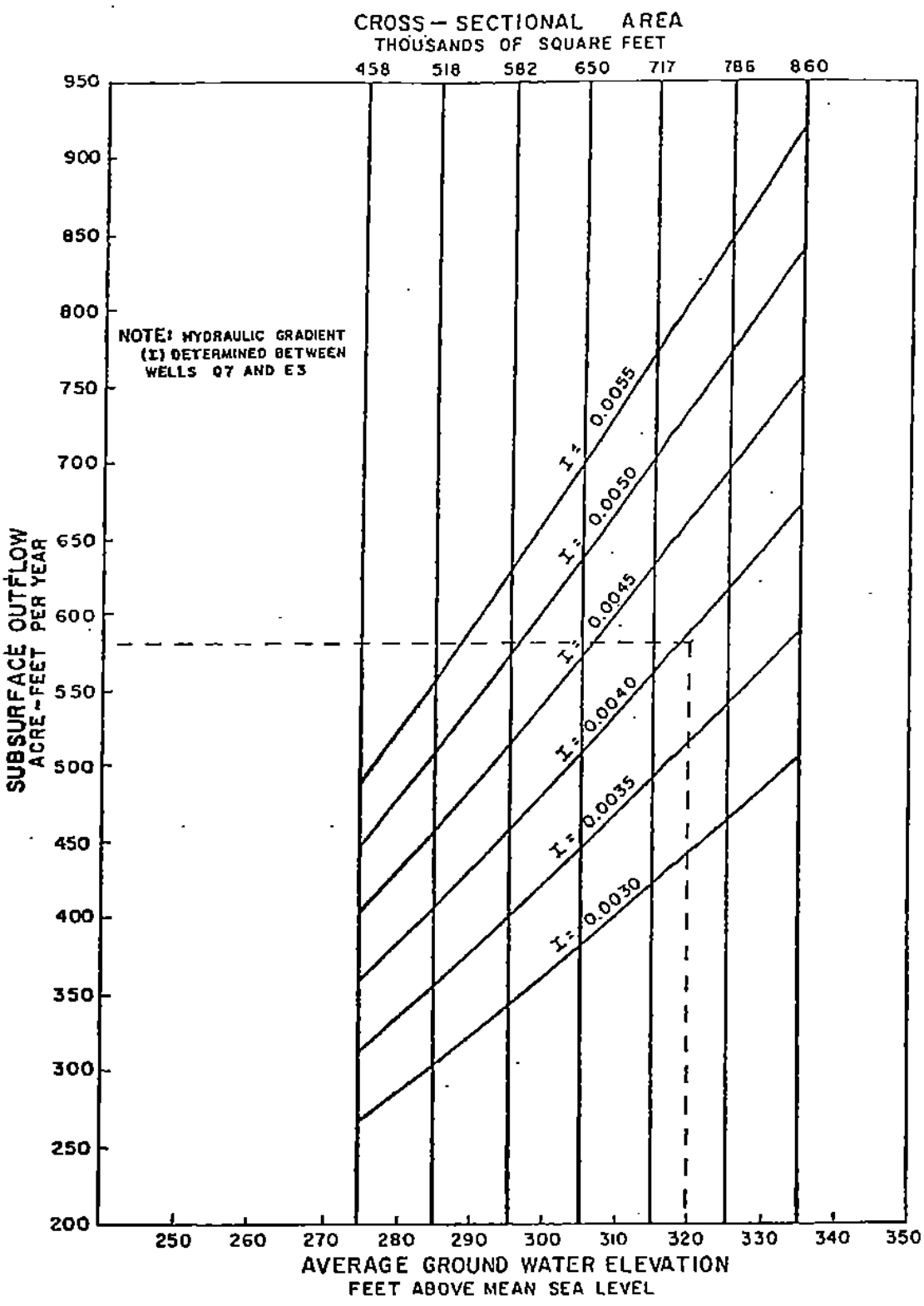
2. Measurement. Each monitoring well shall be measured and the ground water elevation determined semi-annually on or about April 1 and October 1 of each year. Prior to each measurement, the pump shall be turned off for a sufficient period to insure that the water table has recovered to a static or near 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

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.



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:

OWNER PRODUCERS	CONSUMPTIVE USE PORTION
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 and EVELYN F. THOMAS, husband and wife, and MALCOLM K. GATHERER and JACQUELINE GATHERER, husband and wife, doing business by and through B & B REDI-I-MIX CONCRETE, INC., a corporation	45.6 acre-feet per year
B.	PRE-STRESS CRANE RIGGING & TRUCK CO., INC., a corporation	1.0 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

LIST OF PRODUCERS AND THEIR DESIGNEES
June, 1989

Producer Name	Designee
A	
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
B	
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
C	
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

Producer Name	Designee
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
D	
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
E	
East Pasadena Water Company	Robert D. Mraz
El Monte, City of	Robert J. Pinniger
El Monte Cemetery Association	Linn E. Magoffin
F	
Faix, Ltd.	Henri F. Pellissier
G	
Glendora, City of	Arthur E. Cook
Green, Walter	Dr. Walter Green
H	
Hansen, Alice	Alice Hansen

Exhibit "L"

Producer Name	Designee
Hartley, David	David Hartley
Hemlock Mutual Water Company	Bud Selander
Hunter, Lloyd F.	Lloyd F. Hunter
I	
Industry Waterworks System, City of	Mary L. Jaureguy
K	
Kiyan Farm Kiyan, Hideo	Mrs. Hideo Kiyan
Kirklen Family Trust	Dawn Kirklen
Knight, Kathryn M.	William J. Knight
L	
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
M	
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"

Producer Name	Designee
N	
Nick Tomovich & Sons	Nick Tomovich
O	
Owl Rock Products Company	Peter L. Chiu
P	
Phillips, Alice B., et al.	Jack F. Maechtlen
Pico County Water District	Robert P. Fuller
Polopolus, et al.	Christine Chronis
R	
Rados Brothers	Alexander S. Rados
Richwood Mutual Water Company	Bonnie Pool
Rincon Ditch Company	K. E. Nungesser
Rincon Irrigation Company	K. E. Nungesser
Rose Hills Memorial Park Association	Allan D. Smith
Rosemead Development, Ltd.	John W. Lloyd
Rurban Homes Mutual Water Company	George W. Bucey
Ruth, Roy	Roy Ruth
S	
San Dimas - La Verne Recreational Facilities Authority	R. F. Griszka
San Gabriel Country Club	Fran Wolfe
San Gabriel County Water District	Philip G. Crocker
San Gabriel Valley Municipal Water District	Bob Stallings
San Gabriel Valley Water Company	Robert H. Nicholson, Jr.
Sloan Ranches	Larry R. Sloan
Sonoco Products Company	Elaine Corboy
South Covina Water Service	Anton C. Garnier
Southern California Edison Company	S. R. Shermoen

Exhibit "L"

Producer Name	Designee
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
T	
Taylor Herb Garden	Paul S. Taylor
Texaco, Inc.	E. O. Wakefield
Tyler Nursery	James K. Mitsumori, Esq.
U	
United Concrete Pipe Corporation	Doyle H. Wadley
United Rock Products Corporation	William S. Capps, Esq.
V	
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
W	
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)

BOYD KERN (Public Member)

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

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BURTON E. JONES (Public Member)

L. E. MOELLER (Producer Member)

R. H. NICHOLSON, JR. (Producer Member)

WILLIAM M. WHITESIDE (Public Member)

STAFF

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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

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CONRAD T. REIBOLD (Public Member), Treasurer

ROBERT T. BALCH (Producer Member)

ROBERT G. BERLIEN (Producer Member)

ANTON C. GARNIER (Producer Member)

TRAVIS L. MANNING (Public Member)

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CONRAD T. REIBOLD (Public Member), Treasurer

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CONRAD T. REIBOLD (Public Member), Treasurer

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L. E. MOELLER (Producer Member)

ALFRED F. WITTIG (Public Member)

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Ralph B. Helm, Attorney
Thomas M. Stetson, Engineer

FOR CALENDAR YEAR 1983

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FOR CALENDAR YEAR 1984

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CONRAD T. REIBOLD (Public Member), Treasurer

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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

CONRAD T. REIBOLD (Public Member), Treasurer

ROBERT T. BALCH (Producr Member)

DONALD F. CLARK (Public Member)

ANTON C. GARNIER (Producer Member)

L. E. MOELLER (Producer Member)

ALFRED R. WITTIG (Public Member)

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Ralph B. Helm, Attorney
Thomas M. Stetson, Engineer

FOR CALENDAR YEAR 1986

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

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)

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 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.

Ralph B. Helm - Bar No. 022004
4605 Lankershim Boulevard, #214
North Hollywood, CA 91602

Telephone (818) 769-2002

Attorney for Watermaster - Petitioner

SUPERIOR COURT OF CALIFORNIA, COUNTY OF LOS ANGELES

UPPER SAN GABRIEL VALLEY MUNICIPAL WATER DISTRICT, Plaintiff, vs. CITY OF ALHAMBRA, et al., Defendants.	No. 924129 ORDER AMENDING JUDGMENT TO EXPAND WATERMASTER'S POWERS TO INCLUDE MAINTENANCE, IMPROVEMENT, AND CONTROL OF BASIN WATER QUALITY WITH ALLOWABLE FUNDING THROUGH IN-LIEU ASSESSMENTS Hearing: August 7, 1990 Department 38, 9:15 A. M.

The Petition of the Main San Gabriel Basin Watermaster (Watermaster) for Amendment to Judgment herein to expand its powers to include maintenance, improvement, and control of Basin water quality by controlling pumping in the Basin, with allowable funding for associated costs to be paid through its In-Lieu Assessments, was continued on July 31, 1990, to August 7, 1990, when it duly and regularly came on for hearing, at 9:15 o'clock A. M. in Department 38 of the above entitled Court, the Honorable FLORENCE T. PICKARD, Assigned Judge Presiding. Ralph B. Helm appeared as Attorney for Watermaster - Petitioner; Wayne K. Lemieux appeared for Defendant, San Gabriel Valley Municipal Water District, in support of the Petition; Fred Vendig, General

Counsel, Karen L. Tachiki, Assistant General Counsel, and Victor E. Gleason, Senior Deputy General Counsel, by Victor E. Gleason, appeared for Defendant, The Metropolitan Water District of Southern California, in support of the Petition; Timothy J. Ryan appeared for Defendant, San Gabriel Valley Water Company, in opposition to the Petition; Lagerlof, Senecal, Drescher & Swift, by H. Jess Senecal, appeared for Defendants, Calmat Company, Livingston-Graham, Owl Rock Products, AZ-Two, Inc., and Sully-Miller Contracting Company, in opposition to the Petition; Ira Reiner, Los Angeles County District Attorney, by Jan Chatten-Brown, Special Assistant to the District Attorney, appeared in opposition to the Petition; and Sarah F. Bates and Laurens H. Silver, by Sarah F. Bates, appeared on behalf of Amicus Curiae Sierra Club, in opposition to the Petition.

The Court acknowledged receipt and consideration of: letters in support of the Petition by the California Regional Water Quality Control Board - Los Angeles Region and by the State Water Resources Control Board; a copy of a letter addressed to the Attorney for Petitioner, from the US Environmental Protection Agency - Region IX, by Mark J. Klaiman, Assistant Regional Counsel, regarding several matters of federal law which EPA believed might ultimately affect the subject Petition; a letter in opposition to the Petition by East Valleys Organization; and a FAX communication to the Court, in opposition to the Petition, from Congressman Esteban E. Torres, which was not communicated to nor seen by the parties.

Members of the public, present in Court, were invited to, and did, present oral testimony during the hearing.

Under date of December 10, 1990 the Court entered its Intended Decision Re Amendment To Judgment and, by minute order duly entered and mailed to Counsel for Petitioner, ordered copies thereof mailed forthwith to all appearing parties, including those appearing as friends of the court, and to all other affected parties on the case's current mailing list.

A Proof Of Service by mail on December 13, 1990, Of Intended Decision Re Amendment To Judgment, as ordered, has been filed with the Court.

Opposition to Petitioner's Proposed Order were filed by Amicus Curiae Sierra Club, Amicus Curiae Los Angeles District Attorney, and by Producer Parties Calmat Co., Livingston-Graham, Owl Rock Products Company, AZ-Two, Inc., and Sully-Miller Contracting Company.

Proof being made to the satisfaction of the Court and good cause appearing:

IT IS, HEREBY, ORDERED:

1. That the Amended Judgment herein be further amended by amending Subsection (j) of Section 10 thereof, Definitions, and Section 40 thereof, Division F, Physical Solution, to read as follows:

"10 (j) In-Lieu Water Cost - - The differential between a particular Producer's cost of Watermaster directed produced, treated, blended, substituted, or Supplemental Water delivered or substituted to, for, or taken by, such Producer in-lieu of his cost of otherwise normally Producing a like amount of Ground Water from the Basin.

"40. Watermaster Control. (Prior Judgment Section 32)

In order to develop an adequate and effective program of Basin management, it is essential that Watermaster have broad discretion in the making of Basin management decisions within the ambit hereinafter set forth. The maintenance, improvement, and control of the water quality and quantity of the Basin, withdrawal and replenishment of supplies of the Basin and Relevant Watershed, and the utilization of the water resources thereof, must be subject to procedures established by Watermaster in implementation of the Physical Solution provisions of this Judgment. Both the quantity and quality of said water resource are thereby preserved and its beneficial utilization maximized.

"(a) Watermaster shall develop an adequate and effective program of Basin management. The maintenance, improvement, and control of the water quality and quantity of the Basin, withdrawal and replenishment of supplies of the Basin and Relevant Watershed, and the utilization of the water resources thereof, must be subject to procedures established by Watermaster in implementation of the Physical Solution provisions of this Judgment. All Watermaster programs and procedures shall be adopted only after a duly noticed public hearing pursuant to Sections 37 and 40 of the Amended Judgment herein.

"(b) Watermaster shall have the power to control pumping in the Basin by water Producers therein for Basin cleanup and water quality control so that specific well production can be directed as to a lesser amount, to total cessation, as to an increased amount, and even to require pumping in a new location in the

Basin. Watermaster's right to regulate pumping activities of Producers shall be subordinate to any conflicting Basin cleanup plan established by the EPA or other public governmental agency with responsibility for ground water management or clean up.

"(c) Watermaster may act individually or participate with others to carry on technical and other necessary investigations of all kinds and collect data necessary to carry out the herein stated purposes. It may engage in contractual relations with the EPA or other agencies in furtherance of the clean up of the Basin and enter into contracts with agencies of the United States, the State of California, or any political subdivision, municipality, or district thereof, to the extent allowed under applicable federal or state statutes. Any cooperative agreement between the Watermaster and EPA shall require the approval of the appropriate Agency(s) of the State of California.

"(d) For regulation and control of pumping activity in the Basin, Watermaster shall adopt Rules and Regulations and programs to promote, manage and accomplish clean up of the Basin and its waters, including, but not limited to, measures to confine, move, and remove contaminants and pollutants. Such Rules and Regulations and programs shall be adopted only after a duly Noticed Public Hearing by Watermaster and shall be subject to Court review pursuant to Section 37 of the Amended Judgment herein.

"(e) Watermaster shall determine whether funds from local, regional, state or federal agencies are available for regulating pumping and the various costs associated with, or arising from such activities. If no public funds are available from local,

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

Appendix G

Summary of Population Based on Census Data

Appendix G-1: Census Tracts within the San Dimas System

County	Subregion	City	Census Tract	Percentage of Tract in System
Los Angeles	San Gabriel Valley Assoc. of Cities	La Verne city	400203	25%
Los Angeles	San Gabriel Valley Assoc. of Cities	San Dimas city	400203	100%
Los Angeles	San Gabriel Valley Assoc. of Cities	La Verne city	400302	15%
Los Angeles	San Gabriel Valley Assoc. of Cities	Unincorporated	400302	40%
Los Angeles	San Gabriel Valley Assoc. of Cities	San Dimas city	400303	95%
Los Angeles	San Gabriel Valley Assoc. of Cities	La Verne city	400304	100%
Los Angeles	San Gabriel Valley Assoc. of Cities	San Dimas city	400304	100%
Los Angeles	San Gabriel Valley Assoc. of Cities	Glendora city	401202	100%
Los Angeles	San Gabriel Valley Assoc. of Cities	San Dimas city	401302	95%
Los Angeles	San Gabriel Valley Assoc. of Cities	Unincorporated	401302	50%
Los Angeles	San Gabriel Valley Assoc. of Cities	San Dimas city	401311	98%
Los Angeles	San Gabriel Valley Assoc. of Cities	San Dimas city	401312	100%
Los Angeles	San Gabriel Valley Assoc. of Cities	La Verne city	401500	20%
Los Angeles	San Gabriel Valley Assoc. of Cities	Walnut city	403405	60%
Los Angeles	San Gabriel Valley Assoc. of Cities	Unincorporated	403500	25%
Los Angeles	San Gabriel Valley Assoc. of Cities	Walnut city	403500	100%
Los Angeles	San Gabriel Valley Assoc. of Cities	Covina city	403702	75%
Los Angeles	San Gabriel Valley Assoc. of Cities	Unincorporated	403702	100%
Los Angeles	San Gabriel Valley Assoc. of Cities	Covina city	403703	100%
Los Angeles	San Gabriel Valley Assoc. of Cities	San Dimas city	403703	100%
Los Angeles	San Gabriel Valley Assoc. of Cities	Unincorporated	403703	100%
Los Angeles	San Gabriel Valley Assoc. of Cities	Covina city	403721	10%
Los Angeles	San Gabriel Valley Assoc. of Cities	Unincorporated	403721	50%
Los Angeles	San Gabriel Valley Assoc. of Cities	Covina city	403801	35%
Los Angeles	San Gabriel Valley Assoc. of Cities	Unincorporated	403801	85%
Los Angeles	San Gabriel Valley Assoc. of Cities	Covina city	403802	100%
Los Angeles	San Gabriel Valley Assoc. of Cities	San Dimas city	403802	100%
Los Angeles	San Gabriel Valley Assoc. of Cities	Unincorporated	403802	100%

Table G-2: Population, Household and Employment Projections for San Dimas System

Census Tract	County	Subregion	City	Population 2005	2010	2015	2020	2025	2030	2035	Percentage of Tract in System
400203	Los Angeles	San Gabriel Valley Assoc. of Cities	La Verne city	5,062	5,191	5,333	5,483	5,680	5,868	6,067	25%
400203	Los Angeles	San Gabriel Valley Assoc. of Cities	San Dimas city	296	313	351	457	569	675	775	100%
400302	Los Angeles	San Gabriel Valley Assoc. of Cities	La Verne city	1,769	1,816	1,868	1,923	1,995	2,065	2,137	15%
400302	Los Angeles	San Gabriel Valley Assoc. of Cities	Unincorporated	1,346	1,445	1,556	1,660	1,761	1,859	1,953	40%
400303	Los Angeles	San Gabriel Valley Assoc. of Cities	San Dimas city	4,072	4,124	4,232	4,531	4,848	5,148	5,432	95%
400304	Los Angeles	San Gabriel Valley Assoc. of Cities	La Verne city	0	0	0	0	0	0	0	100%
400304	Los Angeles	San Gabriel Valley Assoc. of Cities	San Dimas city	7,322	7,432	7,664	8,303	8,981	9,621	10,228	100%
401202	Los Angeles	San Gabriel Valley Assoc. of Cities	Glendora city	3,207	3,331	3,450	3,562	3,666	3,770	3,866	100%
401302	Los Angeles	San Gabriel Valley Assoc. of Cities	San Dimas city	8,844	8,991	9,305	10,175	11,099	11,971	12,798	95%
401302	Los Angeles	San Gabriel Valley Assoc. of Cities	Unincorporated	361	386	416	447	478	508	536	50%
401311	Los Angeles	San Gabriel Valley Assoc. of Cities	San Dimas city	7,209	7,335	7,606	8,356	9,152	9,903	10,615	98%
401312	Los Angeles	San Gabriel Valley Assoc. of Cities	San Dimas city	5,694	5,801	5,994	6,476	6,985	7,464	7,919	100%
401500	Los Angeles	San Gabriel Valley Assoc. of Cities	La Verne city	5,594	5,800	6,022	6,255	6,549	6,831	7,125	20%
403405	Los Angeles	San Gabriel Valley Assoc. of Cities	Walnut city	1,793	1,824	1,914	1,975	2,041	2,105	2,166	60%
403500	Los Angeles	San Gabriel Valley Assoc. of Cities	Unincorporated	1,283	1,382	1,498	1,624	1,747	1,865	1,978	25%
403500	Los Angeles	San Gabriel Valley Assoc. of Cities	Walnut city	0	0	0	0	0	0	0	100%
403702	Los Angeles	San Gabriel Valley Assoc. of Cities	Covina city	3,913	4,027	4,250	4,421	4,599	4,769	4,932	75%
403702	Los Angeles	San Gabriel Valley Assoc. of Cities	Unincorporated	40	47	56	64	73	81	89	100%
403703	Los Angeles	San Gabriel Valley Assoc. of Cities	Covina city	2,701	2,771	2,911	3,017	3,129	3,235	3,337	100%
403703	Los Angeles	San Gabriel Valley Assoc. of Cities	San Dimas city	1,635	1,699	1,822	2,140	2,476	2,792	3,092	100%
403703	Los Angeles	San Gabriel Valley Assoc. of Cities	Unincorporated	740	803	877	950	1,021	1,090	1,155	100%
403721	Los Angeles	San Gabriel Valley Assoc. of Cities	Covina city	4,528	4,662	4,927	5,128	5,339	5,540	5,733	10%
403721	Los Angeles	San Gabriel Valley Assoc. of Cities	Unincorporated	639	694	758	824	887	949	1,008	50%
403801	Los Angeles	San Gabriel Valley Assoc. of Cities	Covina city	1,439	1,480	1,560	1,621	1,685	1,747	1,806	35%
403801	Los Angeles	San Gabriel Valley Assoc. of Cities	Unincorporated	4,942	5,262	5,631	6,000	6,357	6,703	7,034	85%
403802	Los Angeles	San Gabriel Valley Assoc. of Cities	Covina city	1,925	1,989	2,117	2,213	2,315	2,412	2,504	100%
403802	Los Angeles	San Gabriel Valley Assoc. of Cities	San Dimas city	271	282	307	378	452	523	590	100%
403802	Los Angeles	San Gabriel Valley Assoc. of Cities	Unincorporated	3,936	4,213	4,531	4,845	5,149	5,444	5,726	100%
Total Population Based on SCAG				60,279	62,094	64,957	69,861	74,988	79,859	84,495	
SCAG Growth Rate						5%	8%	7%	6%	6%	

Census Tract	County	Subregion	City	Households 2005	2010	2015	2020	2025	2030	2035	Percentage of Tract in System
400203	Los Angeles	San Gabriel Valley Assoc. of Cities	La Verne city	1,513	1,570	1,633	1,716	1,781	1,844	1,894	25%
400203	Los Angeles	San Gabriel Valley Assoc. of Cities	San Dimas city	169	182	207	273	328	378	419	100%
400302	Los Angeles	San Gabriel Valley Assoc. of Cities	La Verne city	624	646	671	704	730	755	775	15%
400302	Los Angeles	San Gabriel Valley Assoc. of Cities	Unincorporated	416	441	474	509	535	561	583	40%
400303	Los Angeles	San Gabriel Valley Assoc. of Cities	San Dimas city	1,280	1,313	1,372	1,530	1,661	1,783	1,880	95%
400304	Los Angeles	San Gabriel Valley Assoc. of Cities	La Verne city	0	0	0	0	0	0	0	100%
400304	Los Angeles	San Gabriel Valley Assoc. of Cities	San Dimas city	2,485	2,533	2,619	2,850	3,040	3,217	3,358	100%
401202	Los Angeles	San Gabriel Valley Assoc. of Cities	Glendora city	969	996	1,033	1,068	1,093	1,118	1,137	100%
401302	Los Angeles	San Gabriel Valley Assoc. of Cities	San Dimas city	2,922	2,991	3,116	3,449	3,723	3,978	4,182	95%
401302	Los Angeles	San Gabriel Valley Assoc. of Cities	Unincorporated	124	133	144	155	164	173	180	50%
401311	Los Angeles	San Gabriel Valley Assoc. of Cities	San Dimas city	2,530	2,599	2,723	3,055	3,328	3,583	3,786	98%
401312	Los Angeles	San Gabriel Valley Assoc. of Cities	San Dimas city	1,872	1,919	2,005	2,233	2,421	2,596	2,736	100%
401500	Los Angeles	San Gabriel Valley Assoc. of Cities	La Verne city	1,789	1,859	1,936	2,037	2,118	2,194	2,255	20%
403405	Los Angeles	San Gabriel Valley Assoc. of Cities	Walnut city	484	500	536	566	589	611	628	60%
403500	Los Angeles	San Gabriel Valley Assoc. of Cities	Unincorporated	373	405	448	495	531	566	595	25%
403500	Los Angeles	San Gabriel Valley Assoc. of Cities	Walnut city	0	0	0	0	0	0	0	100%
403702	Los Angeles	San Gabriel Valley Assoc. of Cities	Covina city	1,178	1,209	1,283	1,344	1,393	1,439	1,476	75%
403702	Los Angeles	San Gabriel Valley Assoc. of Cities	Unincorporated	10	12	15	18	20	23	25	100%
403703	Los Angeles	San Gabriel Valley Assoc. of Cities	Covina city	806	824	867	904	932	959	981	100%
403703	Los Angeles	San Gabriel Valley Assoc. of Cities	San Dimas city	480	493	517	581	634	683	722	100%
403703	Los Angeles	San Gabriel Valley Assoc. of Cities	Unincorporated	228	245	268	291	309	327	342	100%
403721	Los Angeles	San Gabriel Valley Assoc. of Cities	Covina city	1,513	1,552	1,645	1,723	1,784	1,842	1,888	10%
403721	Los Angeles	San Gabriel Valley Assoc. of Cities	Unincorporated	205	223	246	271	290	309	324	50%
403801	Los Angeles	San Gabriel Valley Assoc. of Cities	Covina city	470	482	509	532	550	567	581	35%
403801	Los Angeles	San Gabriel Valley Assoc. of Cities	Unincorporated	1,590	1,696	1,835	1,981	2,094	2,204	2,295	85%
403802	Los Angeles	San Gabriel Valley Assoc. of Cities	Covina city	654	675	725	767	801	833	858	100%
403802	Los Angeles	San Gabriel Valley Assoc. of Cities	San Dimas city	94	102	116	152	183	211	234	100%
403802	Los Angeles	San Gabriel Valley Assoc. of Cities	Unincorporated	1,295	1,392	1,520	1,652	1,755	1,854	1,936	100%
Total Population Based on SCAG				19,628	20,298	21,403	23,385	24,993	26,505	27,719	
SCAG Growth Rate						5%	9%	7%	6%	5%	

Table G-2: Population, Household and Employment Projections for San Dimas System

Census Tract	County	Subregion	City	Employment 2005	2010	2015	2020	2025	2030	2035	Percentage of Tract in System
400203	Los Angeles	San Gabriel Valley Assoc. of Cities	La Verne city	65	73	79	85	92	99	106	25%
400203	Los Angeles	San Gabriel Valley Assoc. of Cities	San Dimas city	118	145	165	176	190	204	218	100%
400302	Los Angeles	San Gabriel Valley Assoc. of Cities	La Verne city	463	499	528	544	564	585	604	15%
400302	Los Angeles	San Gabriel Valley Assoc. of Cities	Unincorporated	215	228	239	247	256	266	276	40%
400303	Los Angeles	San Gabriel Valley Assoc. of Cities	San Dimas city	1,099	1,147	1,186	1,213	1,244	1,277	1,309	95%
400304	Los Angeles	San Gabriel Valley Assoc. of Cities	La Verne city	0	0	0	0	0	0	0	100%
400304	Los Angeles	San Gabriel Valley Assoc. of Cities	San Dimas city	2,477	2,517	2,549	2,570	2,595	2,621	2,647	100%
401202	Los Angeles	San Gabriel Valley Assoc. of Cities	Glendora city	2,150	2,253	2,337	2,395	2,462	2,534	2,603	100%
401302	Los Angeles	San Gabriel Valley Assoc. of Cities	San Dimas city	557	612	655	683	716	751	784	95%
401302	Los Angeles	San Gabriel Valley Assoc. of Cities	San Dimas city	291	312	330	344	360	376	393	50%
401311	Los Angeles	San Gabriel Valley Assoc. of Cities	San Dimas city	7,768	8,013	8,212	8,346	8,503	8,671	8,832	98%
401312	Los Angeles	San Gabriel Valley Assoc. of Cities	San Dimas city	2,709	2,797	2,866	2,910	2,961	3,015	3,067	100%
401500	Los Angeles	San Gabriel Valley Assoc. of Cities	La Verne city	3,505	3,533	3,555	3,566	3,579	3,594	3,607	20%
403405	Los Angeles	San Gabriel Valley Assoc. of Cities	Walnut city	2,229	2,281	2,322	2,348	2,379	2,412	2,444	60%
403500	Los Angeles	San Gabriel Valley Assoc. of Cities	Unincorporated	21	24	25	26	27	28	29	25%
403500	Los Angeles	San Gabriel Valley Assoc. of Cities	Walnut city	0	0	0	0	0	0	0	100%
403702	Los Angeles	San Gabriel Valley Assoc. of Cities	Covina city	688	704	717	726	737	748	760	75%
403702	Los Angeles	San Gabriel Valley Assoc. of Cities	Unincorporated	21	21	22	22	23	23	24	100%
403703	Los Angeles	San Gabriel Valley Assoc. of Cities	Covina city	324	379	426	463	505	551	594	100%
403703	Los Angeles	San Gabriel Valley Assoc. of Cities	San Dimas city	27	33	38	41	44	48	51	100%
403703	Los Angeles	San Gabriel Valley Assoc. of Cities	Unincorporated	96	114	129	139	151	163	175	100%
403721	Los Angeles	San Gabriel Valley Assoc. of Cities	Covina city	2,506	2,607	2,687	2,737	2,795	2,857	2,916	10%
403721	Los Angeles	San Gabriel Valley Assoc. of Cities	Unincorporated	373	389	401	407	415	424	432	50%
403801	Los Angeles	San Gabriel Valley Assoc. of Cities	Covina city	1,160	1,186	1,206	1,218	1,233	1,249	1,264	35%
403801	Los Angeles	San Gabriel Valley Assoc. of Cities	Unincorporated	850	870	885	894	904	914	925	85%
403802	Los Angeles	San Gabriel Valley Assoc. of Cities	Covina city	69	78	85	90	96	103	109	100%
403802	Los Angeles	San Gabriel Valley Assoc. of Cities	San Dimas city	0	0	0	0	0	0	0	100%
403802	Los Angeles	San Gabriel Valley Assoc. of Cities	Unincorporated	568	647	709	750	797	847	896	100%
Total Population Based on SCAG				22,187	23,067	23,774	24,246	24,799	25,386	25,953	
SCAG Growth Rate						3%	2%	2%	2%	2%	

Appendix H

Documentation of submittal to Library, Cities and Counties

Golden State
Water Company
A Subsidiary of American States Water Company

September 1, 2011

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

Dear: Michael A. Marquez

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 July 19, 2011. The 2010 UWMP was adopted in accordance with the Urban Water Management Planning Act and filed with DWR and the California Sate 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.

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 La Verne
Hal Fredericksen
Community Development Director
3660 D Street
La Verne, CA 91750

Dear: Hal Fredericksen

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 July 19, 2011. The 2010 UWMP was adopted in accordance with the Urban Water Management Planning Act and filed with DWR and the California Sate 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.

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

Dear: Dan Coleman

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 July 19, 2011. The 2010 UWMP was adopted in accordance with the Urban Water Management Planning Act and filed with DWR and the California Sate 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.

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

Dear: Tom Wiener

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 July 19, 2011. The 2010 UWMP was adopted in accordance with the Urban Water Management Planning Act and filed with DWR and the California Sate 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.

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 July 19, 2011. The 2010 UWMP was adopted in accordance with the Urban Water Management Planning Act and filed with DWR and the California Sate 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.

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

Documentation of Water Use Projections Submittal

Golden State
Water Company
A Subsidiary of American States Water Company

11 February 2011

Mr. Richard W. Hansen, P.E.
General Manager/Chief Engineer
Three Valleys Municipal Water District
1021 E. Miramar Avenue
Claremont, CA 91711

Subject: Golden State Water Company - Claremont and San Dimas System
2010 Urban Water Management Plan Preparation Notification and Supply Reliability Information Request

Dear Mr. Hansen:

Golden State Water Company (GSWC) is currently preparing its 2010 Urban Water Management Plan (UWMP) for the Claremont and San Dimas System as required by the Urban Water Management Planning Act (Act). Since Three Valleys Municipal Water District 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 and San Dimas service area (if applicable) (Table 7)
8. Describe any regional desalination opportunities, if any for the Claremont and San Dimas 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

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

Urban Water Management Plan Checklist

Table I-2 Urban Water Management Plan checklist, organized by subject

No.	UWMP requirement [a]	Calif. Water Code reference	Additional clarification	UWMP location	Page Number
PLAN PREPARATION					
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(d)(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 [a]	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 H	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
SYSTEM DESCRIPTION					
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
SYSTEM DEMANDS					
1	Provide baseline daily per capita water use, urban water use target, interim urban water use target, and compliance daily per capita water use, along with the bases for determining those estimates, including references to supporting data.	10608.20(e)		3.2	3-3

No.	UWMP requirement [a]	Calif. Water Code reference	Additional clarification	UWMP location	Page Number
2	*Wholesalers:* Include an assessment of present and proposed future measures, programs, and policies to help achieve the water use reductions. *Retailers:* 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	4-9
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 L	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	3-16
SYSTEM SUPPLIES					
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 [a]	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	4-4
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	4-4
16	Describe the groundwater basin.	10631(b)(2)		4.3	4-4
17	Indicate whether the groundwater basin is adjudicated? Include a copy of the court order or decree.	10631(b)(2)		4.3 & Appendix F	4-4
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	4-4
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	4-4
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	4-4
24	Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis.	10631(d)		4.4	4-8

No.	UWMP requirement [a]	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	4-8
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	4-10
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	4-11
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	4-12
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	4-12
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	4-12
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	4-14
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	4-11
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	4-15

No.	UWMP requirement [a]	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	4-15
WATER SHORTAGE RELIABILITY AND WATER SHORTAGE CONTINGENCY PLANNING [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)		6.1.5	6-7
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 [a]	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	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
DEMAND MANAGEMENT MEASURES					
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 [a]	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.