

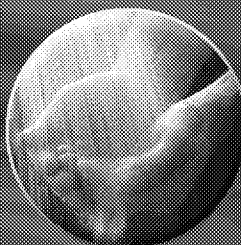
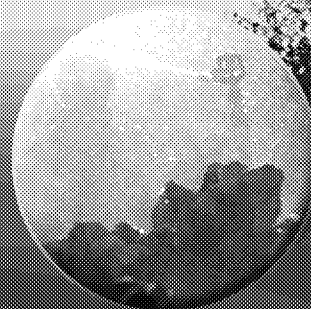
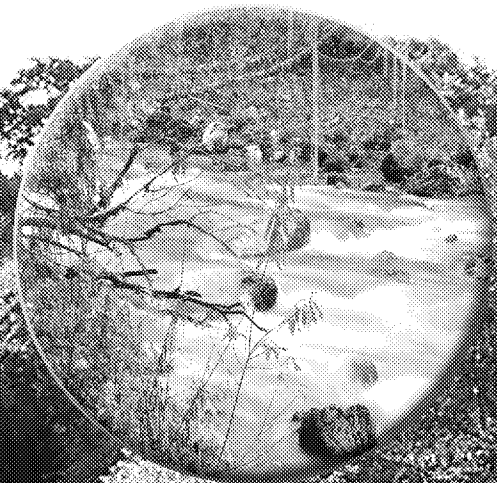
Golden State
Water Company

A Subsidiary of American States Water Company

Final Report

2010 Urban Water Management Plan *Southwest*

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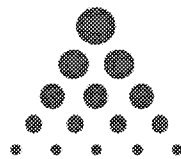


July 2011

Kennedy/Jenks Consultants

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2010 Urban Water Management Plan – Southwest



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San Dimas, CA 91773

July 2011

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A meeting to solicit public comments on the 2010 Urban Water Management Plan for the Golden State Water Company Southwest System was held on June 8, 2011 at 6 p.m. at the Nakaoka Community Center in Gardena, California. Notice of this meeting was published in accordance with Section 6066 of the Government Code in the Long Beach Telegram and Los Angeles Times on April 5, 2011.

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

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

July 1, 2011

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Abbreviations

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

ERP	Emergency Response Plan
ETo	evapotranspiration
GIS	Geographic Information System
gpcd	gallons per capita day
gpd	gallons per day
gpm	U.S. gallons per minute
GSWC	Golden State Water Company
HAA5	5 Haloacetic Acids
HCD	Housing and Community Development
HECW	high efficiency clothes washers
HET	high efficiency toilets
ILI	infrastructure leakage index
IRP	Integrated Resources Plan
JWPCP	Joint Water Pollution Control Plant
LACDPW	Los Angeles County Department of Public Works
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)
MWD	Municipal Water District with reference to any of the member agencies of the Metropolitan Water District of Southern California
N/A	not available, not applicable
NAICS	North American Industry Classification System
O&M	operation and maintenance
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
SF	single-family
SWP	State Water Project
TAF	thousand acre-feet per year
TTHM	total trihalomethanes
ULFT	ultra-low-flush-toilet
USEPA	U.S. Environmental Protection Agency
UWMP	Urban Water Management Plan
VOC	volatile organic compound
WAP	Water Action Plan
WBIC	weather-based irrigation controllers
WBMWD	West Basin Municipal Water District
WBRWP	West Basin Recycled Water Project
WLCD	Water Loss Control Department
WRCC	Western Regional Climate Center
WRDSC	Water Replenishment District of Southern California
WSAP	Water Supply Allocation Plan
WSDM	Water Surplus and Drought Management Plan
WSO	Weather Service Office
WSS	WaterSense Specification
WWTP	Wastewater Treatment Plant

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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) Southwest 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 supplying more than 3,000 acre-feet per year (ac-ft/yr) for retail or wholesale uses 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 water demand reduction targets. GSWC prepared an UWMP for the Southwest System in 1985, 1990, 1995, 2000, and 2005. This 2010 UWMP is an update to the 2005 plan.

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

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

Section 10610.2

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

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

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

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

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

1.2 System Overview

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

Located in southwestern Los Angeles County, the Southwest System serves the Cities of Gardena and Lawndale, part of the cities of Carson, Compton, El Segundo, Hawthorne and Inglewood, and unincorporated parts of Los Angeles County, such as Lennox, Athens, and Del Aire. 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 Southwest System.

1.3 Notice of Document Use

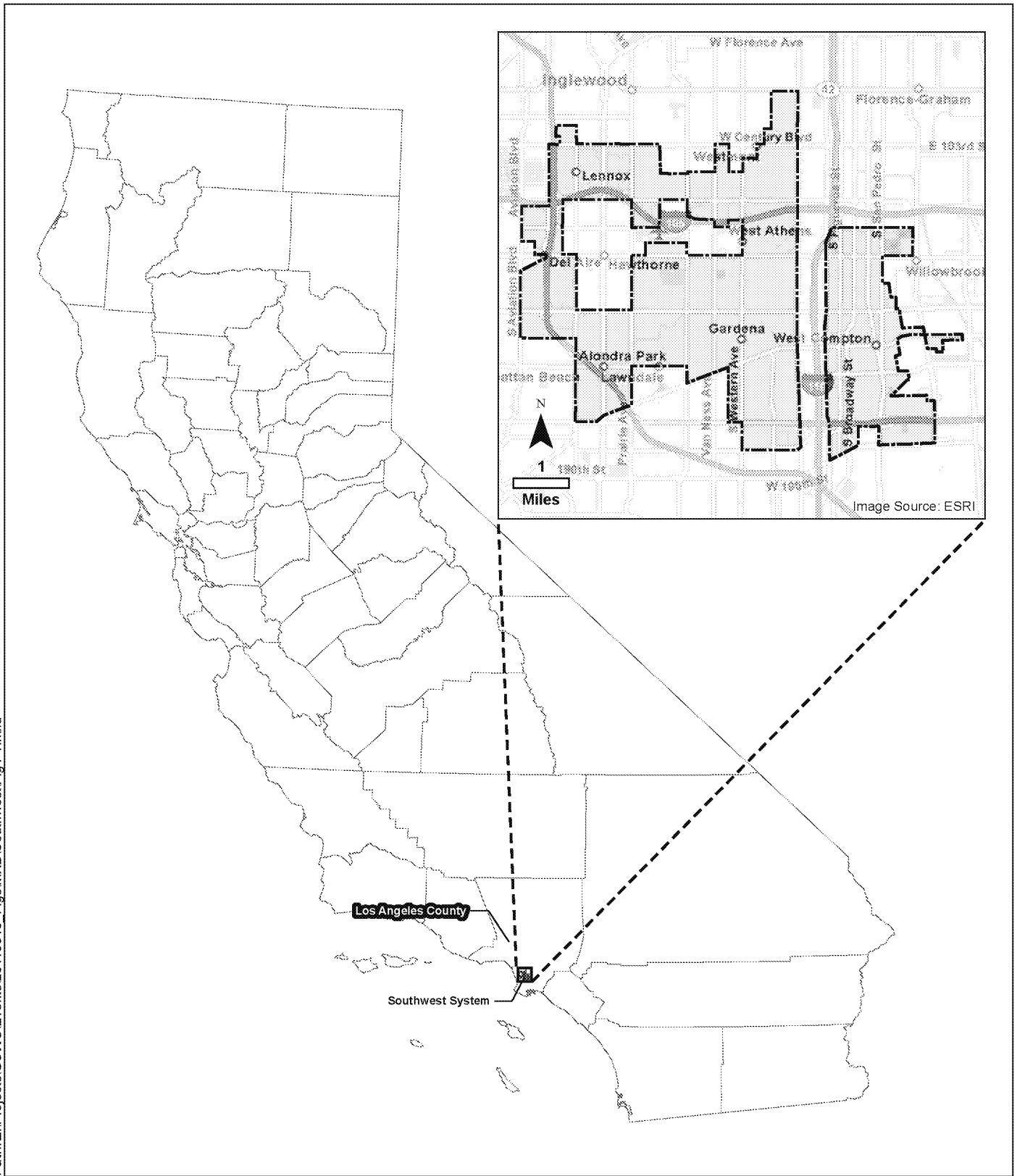
GSWC is committed to implementation of the projects, plans, and discussions provided within this document. However, it is important to note that execution of the plan is contingent upon the regulatory limitations and approval of the CPUC and other state agencies. Additionally, this document merely presents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

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.

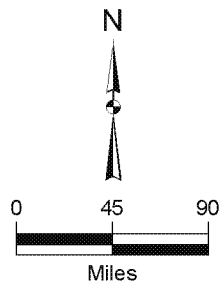
The purpose of the 2010 WAP update was to establish renewed focus on the following elements:

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.



Legend

 Southwest Service Area



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

**Southwest System
Location Map**

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

1.5 Agency Coordination

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

Section 10620.

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

Section 10621.

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

Section 10635.

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

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

Table 1-1 lists the agencies with which coordination occurred while preparing this 2010 UWMP. The initial coordination began in July 2010, which included the distribution of letter notifications and requests for information. Each notification letter was followed up with a telephone call as necessary to obtain supporting data and coordinate preparation of the UWMP. Table 1-1 also provides a list of agencies that were provided public hearing notifications and access to the draft UWMP

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 Carson	✓					✓	
City of Compton	✓					✓	
City of El Segundo	✓					✓	
City of Gardena	✓	✓				✓	
City of Hawthorne	✓					✓	
City of Inglewood	✓					✓	
City of Lawndale	✓					✓	
City of Los Angeles	✓					✓	
County of Los Angeles	✓					✓	
Central Basin Municipal Water District	✓	✓				✓	
West Basin Municipal Water District	✓	✓				✓	
California Water Service Company	✓					✓	
Park Water Company	✓	✓				✓	
Los Angeles County Sanitation District	✓	✓				✓	

Note:

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

1.6 Plan Adoption and Submittal

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

Section 10621.

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

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

Section 10644.

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

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

A public hearing to review the 2010 Southwest System UWMP was held on June 8, 2011 at the Nakaoka Community Center in Gardena, 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 were 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 Southwest 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 Southwest 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 Southwest 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 (DMMs) through GSWC participation in the California Urban Water Conservation Council's (Council or CUWCC) Memorandum of Understanding (MOU).

1.9 Content of the UWMP

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

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

Chapter	Corresponding Provisions of the Water Code		DWR Guidebook Checklist No.
Chapter 1: Plan Preparation	10642	Public participation	55 and 56
	10643	Plan implementation	58
	10644	Plan filing	59
	10645	Public review availability	60
	10620 (a)–(e)	Coordination with other agencies; document preparation	4
	10621 (a)–(c)	City and county notification; due date; review	6 and 54
	10621 (c)	UWMP adoption	7 and 57
	10620 (f)	Resource optimization	5
Chapter 2: System Description	10631 (a)	Area, demographics, population, and climate	8-12
Chapter 3: Water Use	10608	Urban water use targets	1
	10631 (e), (k)	Water use, data sharing	25 and 34
	10631 (k)	Data to wholesaler	33
Chapter 4: Water Supply	10631 (b)–(d), (h), (k)	Water sources, reliability of supply, transfers and exchanges, supply projects, data sharing	13-21, 24, 30, 33
	10631 (i)	Desalination	31
	10633	Recycled water	44-51
Chapter 5: Water Quality	10634	Water quality impacts on reliability	52
Chapter 6: Water Supply Reliability	10631 (c) (1)	Water supply reliability and vulnerability to seasonal or climatic shortage	22
	10631 (c) (2)	Factors resulting in inconsistency of supply	23
	10635 (a)	Reliability during normal, dry, and multiple-dry years	53
Chapter 7: Conservation Program and Demand Management Measures	10631 (f)–(g), (j), 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 imported 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 Southwest 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 Southwest System is located in Los Angeles County and serves the Cities of Gardena and Lawndale, part of the cities of Carson, Compton, El Segundo, Hawthorne and Inglewood, and unincorporated parts of Los Angeles County, such as Lennox, Athens, and Del Aire. Figure 2-1 illustrates the customer service area of Southwest System. The service area is primarily characterized by residential land use, with some commercial and industrial land use.

2.2 Demographics

The City of Gardena was chosen as demographically representative of the Southwest System. According to 2000 U.S. Census Data, the median age of the City of Gardena's residents is 34.4 years, the average household size of 2.80 and the median household income is approximately \$38,988 in 1999 dollars or \$50,918 in 2010 dollars.

The Southwest System serves connections in a number of Los Angeles area cities, including Inglewood, Hawthorne, Carson, and Gardena, West Compton and Compton areas. The planning departments of all cities except the City of Gardena indicated that there are few undeveloped individual parcels in the system and any growth occurring will be a combination of urban expansion and in-fill development. Based on the Southwest System map, most of these cities appear to be near "build-out", i.e. the planning area is approaching its maximum population.

General Plan 2006 is City of Gardena's recently updated General Plan. The planning department of City of Gardena indicated that the city is 95 percent built-out. Redevelopment projects like conversion of nurseries and mobile home parks to residential development may contribute to population growth in the City. In a built-out or nearly built-out area, changes are minor and difficult to predict.

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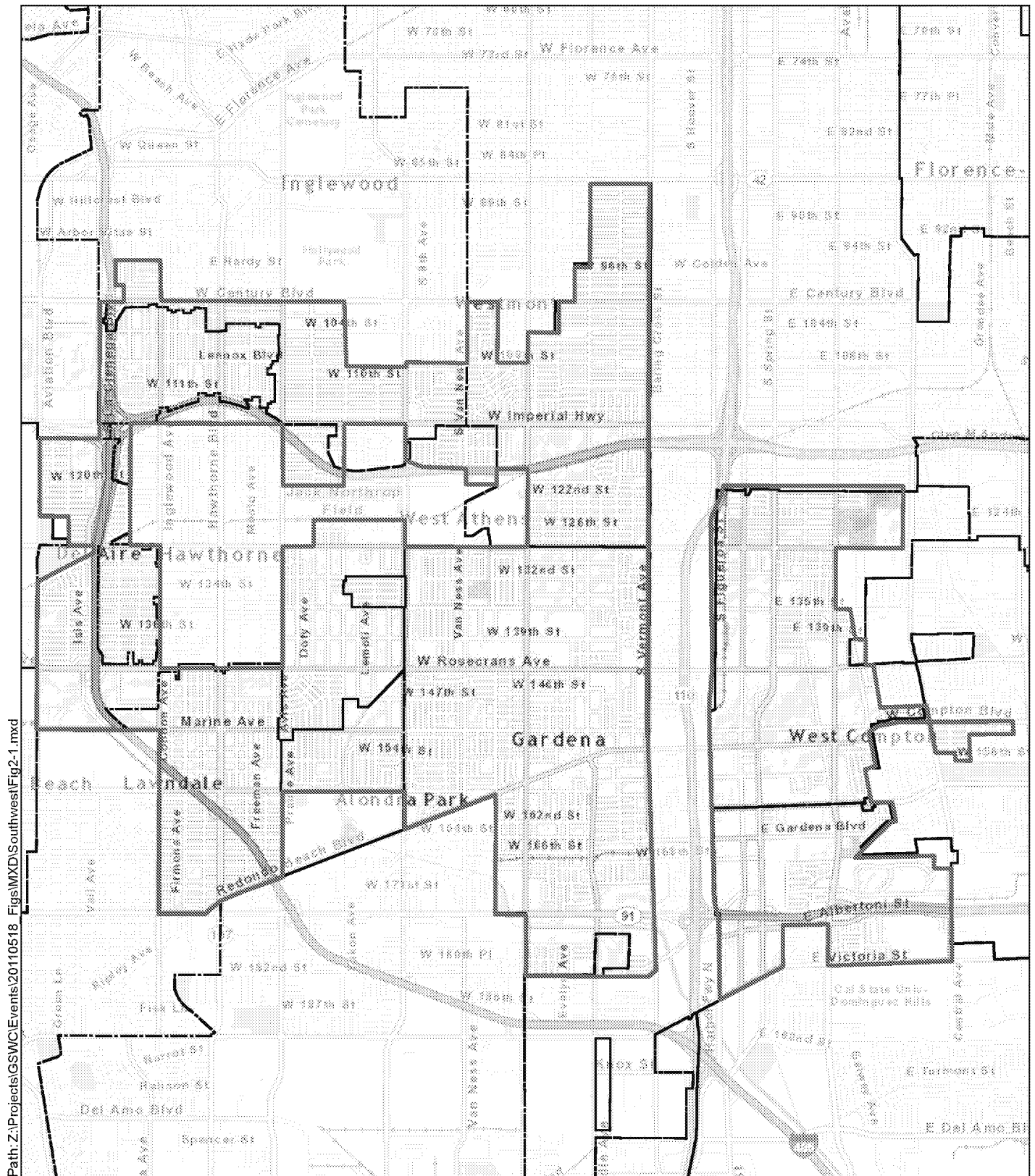
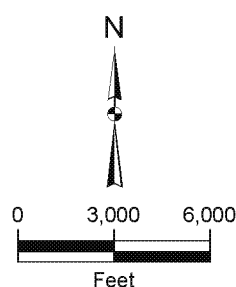


Image Source: ESRI

Legend

- Southwest System Boundary
- City Boundary



Kennedy/Jenks Consultants

Golden State Water Company
2010 Urban Water Management Plan

**Southwest System
Service Area**

K/J 1070001*00
July 2011

Figure 2-1

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2.3 Population, Housing and Employment

Population, housing, and employment projections were developed for the Southwest System using the Southern California Association of Governments (SCAG) population, housing and employment data. SCAG last 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 Southwest System. Previous and current projections utilize 2000 U.S. Census Data.

SCAG is currently in the process of developing its 2012 Regional Transportation Plan (2012 RTP) which will utilize a new population projection model based on 2010 U.S. 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 Southwest 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 Southwest 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 Southwest 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 Southwest 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 Southwest System.

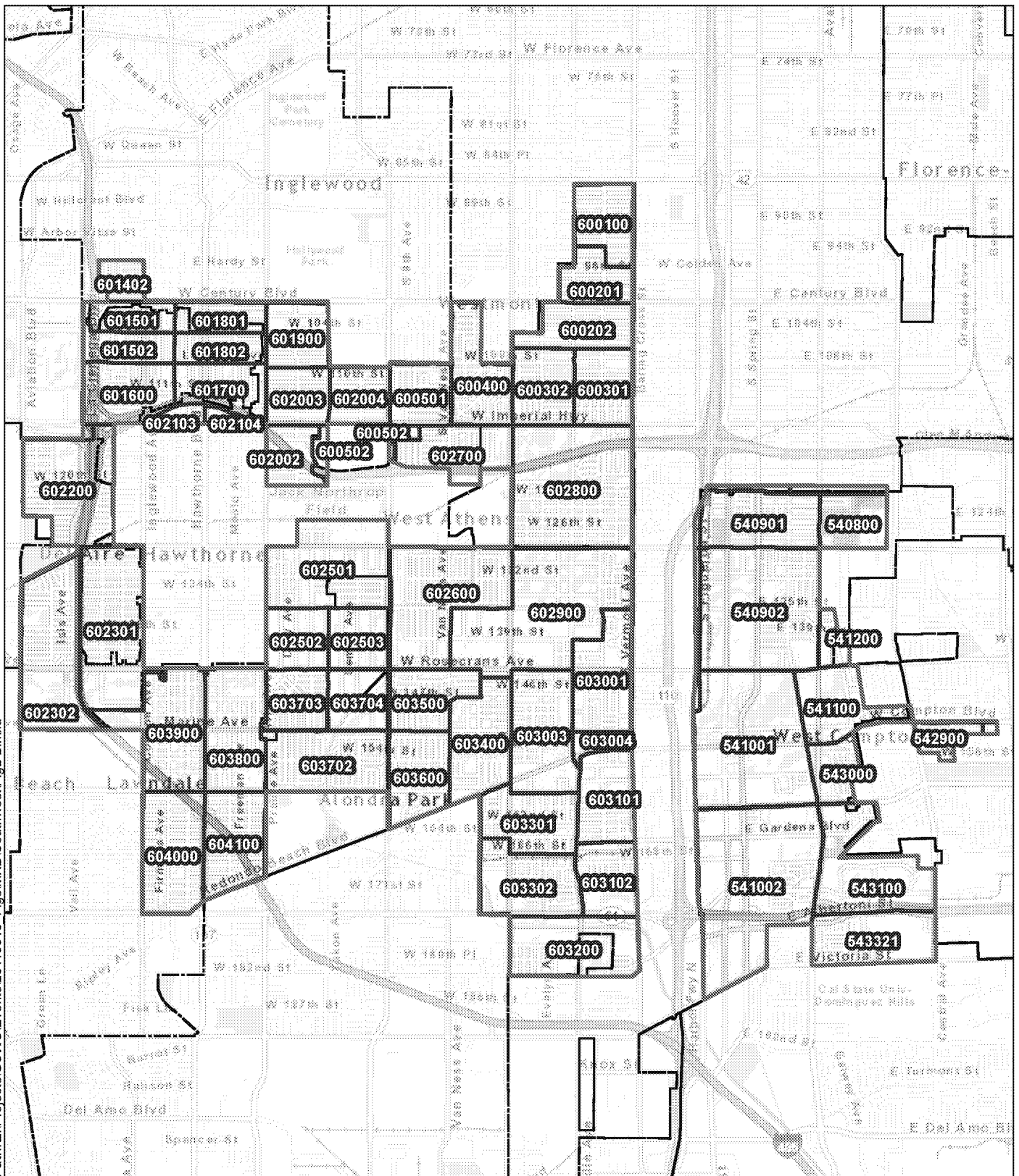
Annual estimates of historical population between 1997 and 2010 required for SBX7-7 are provided in Table 2-1. The population estimates were developed following DWR *Technical Methodology 2: Service Area Population*. GSWC is considered a Category 2 water supplier because they maintain a Geographic Information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

Table 2-1: Southwest System Historical Population	
Year	Service Area Population
1997	267,656
1998	264,821
1999	263,176
2000	263,786 ⁽¹⁾
2001	265,592
2002	266,478
2003	267,925
2004	268,583
2005	269,331
2006	270,060
2007	270,939
2008	270,467
2009	270,957
2010	271,861




Note:

1. Population for year 2000 from 2005 UWMP.

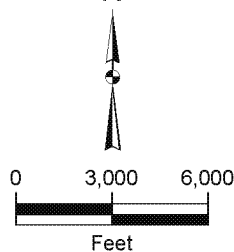
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Legend

-  Southwest System Boundary
-  Census Tract Boundary within Service Area
-  City Boundary

N



Kennedy/Jenks Consultants

Golden State Water Company
2010 Urban Water Management Plan

**Southwest System
Service Area with
Census Tract Boundary**

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July 2011

Figure 2-2

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As concluded from analysis of SCAG demographic data, the Southwest System had an estimated population of 271,861 in 2010 and is expected to reach 311,135 by 2035. A summary of historic and projected population, households, and employment within the Southwest System (based on SCAG growth rate data) is presented in Table 2-2 and illustrated in Figure 2-3. To ensure consistency between the historical and projected population data required for this plan, projections for 2015 through 2035 were adjusted relative to the 2010 population benchmark using the appropriate SCAG percentage growth rates in each category. For this reason, SCAG projections after 2000 for the Census Tracts do not correlate precisely with the estimates included in this plan. Population projections increased substantially from the 2005 UWMP due to the inclusion of portions of the Cities of Compton and West Compton to the Southwest System.

Table 2-2: Southwest System Historical and Projected Population				
Year	Service Area Population	Service Area Households	Service Area Employment	Data Source
2005	269,331	78,688	85,877	GSWC
2010	271,861	80,353	87,894	GSWC
2015 ⁽³⁾	280,629	82,840	89,505	SCAG
2020	288,509	85,043	90,535	SCAG
2025	296,301	86,734	91,753	SCAG
2030	303,858	88,375	93,040	SCAG
2035	311,135	89,705	94,286	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 Southwest population increased 1 percent, which is a growth rate of approximately 0.2 percent per year. By 2035, population is projected to increase by a total of 23 percent, from 271,861 in 2010 to 311,135 in 2035, which is a 0.9 percent growth rate per year. The number of households is expected to grow 12 percent during the same period, which equates to an annual household growth rate of 0.5 percent. Employment is expected to grow 7 percent during the same period, which equates to an annual employment growth rate of 0.3 percent. Areas with the highest projected growth increases are also the areas that will see the largest increase in water use. SCAG's demographic analysis does not project any planned residential developments for future years. As discussed in the demographics section, new development and redevelopment projects in the Southwest System may contribute to future growth.

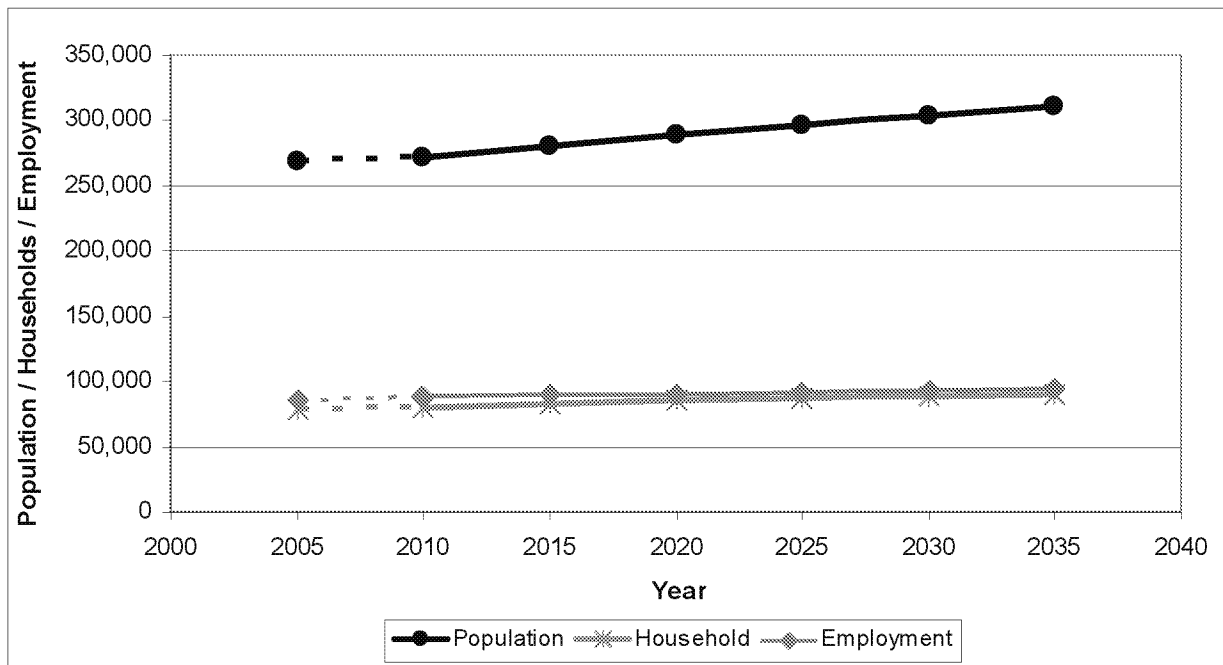


Figure 2-3: Historical and Projected Population, Household and Employment Growth within the Southwest System

2.4 Climate

Southwest System has cool, humid winters and warm, moderately humid summers. Western Regional Climate Center (WRCC) has maintained 30 years of historical climate records for some cities. WRCC does not have station within the Southwest System and therefore the Los Angeles Weather Service Office (WSO) Airport station, 15 miles from the Southwest System, was utilized for the climate data analysis.

The WRCC's website (www.wrcc.dri.edu) maintains historical climate records for the past 60 years for Los Angeles WSO Airport Station. Table 2-3 presents the average climate summary based on historical data for Los Angeles WSO Airport.

In the winter, the lowest average monthly temperature is approximately 47 degrees Fahrenheit. The highest average monthly temperature reaches approximately 76 degrees Fahrenheit in the summer. Figure 2-4 presents the monthly average precipitation based on 60-year historical data. The rainy season is typically from November to March. Monthly precipitation during the winter months ranges from 1 to 3 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 Southwest System, the California Irrigation Management Information System (CIMIS) website (<http://www.cimis.water.ca.gov>) tracks and maintains records of evapotranspiration (ETo) for only a few cities. ETo statistics used for this system come from the Long Beach station, which is 16 miles from Southwest 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 ETo 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 in correlation to high temperatures and low humidity, a greater quantity of water is evaporated during July and August, which may result in high water demand.

Table 2-3: Monthly Average Climate Data Summary for Southwest System				
Month	Standard Monthly Average ETo ⁽²⁾ (inches)	Average Total Rainfall (inches)	Average Temperature (degrees Fahrenheit)	
			Max	Min
January	1.8	2.68	65.1	47.4
February	2.0	2.72	65.3	48.9
March	3.4	1.84	65.3	50.4
April	4.2	0.76	67.5	53.0
May	4.5	0.17	69.2	56.4
June	4.5	0.05	72.0	59.7
July	5.4	0.02	75.3	63.0
August	5.0	0.07	76.4	63.8
September	3.9	0.16	76.0	62.6
October	3.0	0.37	73.7	58.5
November	1.9	1.41	70.3	52.4
December	1.6	1.73	66.0	47.9

Notes:

1. Data from WSO Airport Station.
2. Evapotranspiration (ETo) from <http://www.cimis.water.ca.gov/cimis/welcom.jsp>.

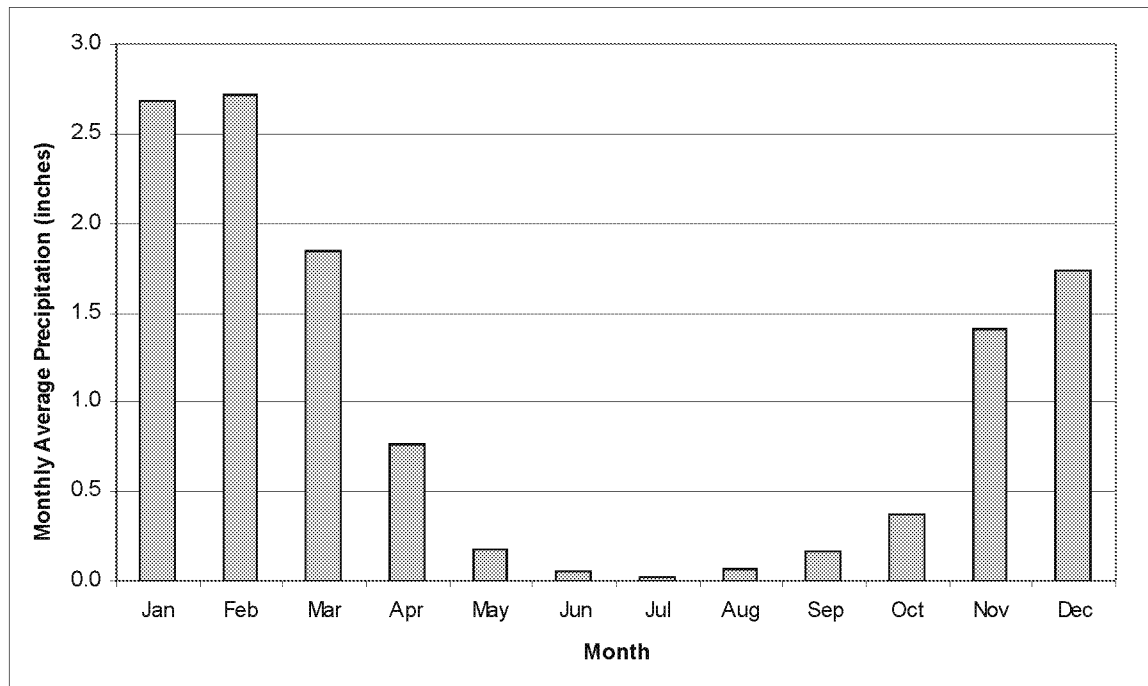


Figure 2-4: Monthly Average Precipitation at WSO Airport Based on 60-Year Historical Data

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Chapter 3: Water Use

Section 10631(e) of the Act requires that an evaluation of water use be performed for the Southwest 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 and requires statewide urban demand reduction of 20 percent by the year 2020. The bill sets specific methods for calculating both 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 Southwest 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 Southwest System. Figure 3-1 shows the historical number of metered service connections and water use for the Southwest System from 1994 through 2010.

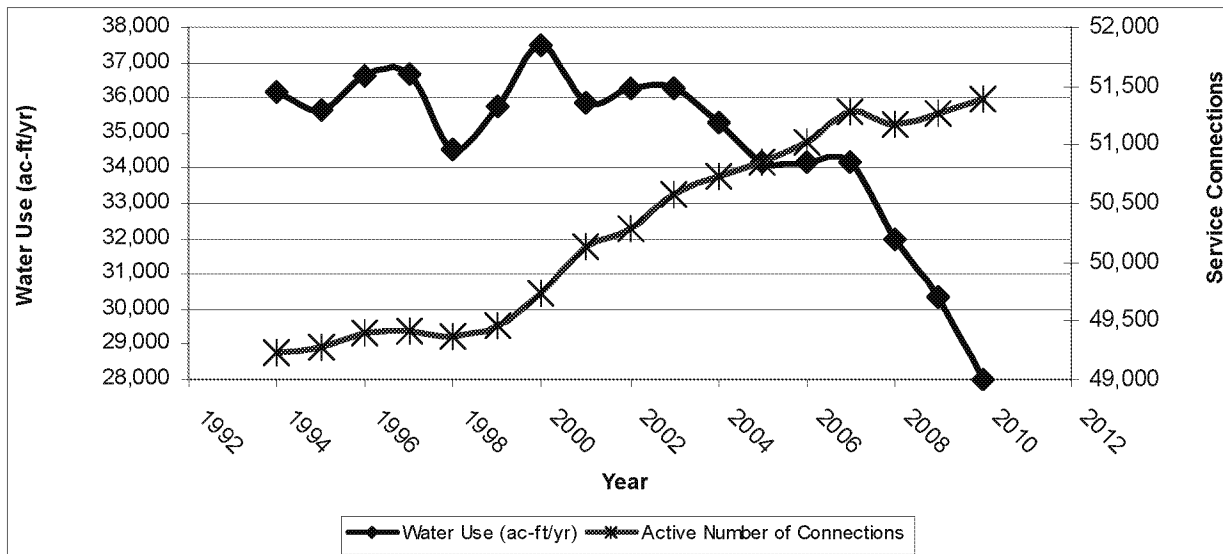


Figure 3-1: Historical Number of Metered Service Connections and Water Use

Figure 3-1 shows a decline in water use beginning in 2007 with an approximate 12 percent decline from 2008 to 2010. Review of similar data from other systems suggests the recent decline in water use has been widespread and is not isolated to the Southwest System. The 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 data were further grouped into the following

seven categories: single-family, multi-family, industrial, commercial, institutional/government, landscape, and others. Table 3-1 shows the historical water use by customer type.

Table 3-1: Historical Water Use (ac-ft/yr) by Customer Type										
YEAR	Single Family	Multi-Family	Commercial	Industrial	Institutional/ Government	Landscape	Agricultural	Recycled	Other	Total
1994	20,744	7,224	3,836	2,116	1,307	801	0	17	102	36,147
1995	17,916	7,697	4,120	2,921	1,364	1,453	0	53	129	35,653
1996	16,605	8,574	4,792	3,661	1,205	1,606	0	197	8	36,648
1997	16,075	9,252	4,402	4,253	1,286	874	0	525	16	36,683
1998	13,622	9,762	5,019	4,246	1,094	548	4	213	15	34,523
1999	13,071	10,779	5,147	4,460	1,295	747	5	235	10	35,749
2000	12,456	11,481	6,476	4,414	1,364	1,030	0	255	10	37,486
2001	11,883	11,474	6,145	3,674	1,277	1,152	6	212	10	35,833
2002	12,635	11,514	5,736	3,403	1,395	1,210	0	369	25	36,287
2003	12,653	11,725	5,833	3,204	1,229	1,244	0	354	28	36,270
2004	12,356	11,187	5,474	3,340	1,197	1,282	0	429	29	35,294
2005	11,846	11,019	5,574	3,269	1,138	907	0	407	27	34,187
2006	11,920	10,911	5,440	3,127	1,157	1,122	2	490	27	34,196
2007	12,425	10,723	5,510	2,685	1,186	1,054	5	545	35	34,168
2008	11,694	10,355	5,125	2,336	1,089	882	5	469	48	32,003
2009	11,013	9,936	4,773	2,338	1,075	845	5	344	39	30,368
2010	10,422	9,367	4,425	1,921	873	755	4	219	27	28,013

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 Southwest System was estimated and compared to actual water use records. The following three baseline gpcd calculation methods identified in SBX7-7 were evaluated for the Southwest 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 Southwest System does not currently receive more than 10 percent recycled water; therefore Baseline Method 2 is not applicable. Table 3-2 below presents the base period ranges, total water deliveries and the volume of recycled water delivered in 2008; these data are used to determine the number of years that can be included in the base period range. Also shown are the actual start and end years for the selected base period range.

Table 3-2: Base Period Ranges			
Base	Parameter	Value	Units
10-year base period	2008 total water deliveries	36,557	Ac-ft
	2008 total volume of delivered recycled water	495	Ac-ft
	2008 recycled water as a percent of total deliveries	1.37	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	267,656	33,932,623	127
1998	264,821	32,453,780	123
1999	263,176	33,476,849	127
2000	263,786	34,356,177	130
2001	265,592	32,620,098	123
2002	266,478	33,536,390	126
2003	267,925	32,784,576	122
2004	268,583	32,903,949	123
2005	269,331	34,441,859	128
2006	270,060	34,594,843	128
2007	270,939	33,703,137	124

Table 3-3: 1997-2010 Base Daily Use Calculation			
Calendar Year	Distribution System Population	Gallons/Day	Daily per Capita Water Use, gpcd
2008	270,467	32,194,061	119
2009	270,957	28,961,878	107
2010	271,861	26,482,376	97

Note:

Table format based on DWR Guidebook Tables 14 and 15.

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 usages of 126 and 125 gpcd, respectively, were selected.

Table 3-4: 10-Year Average Base Daily Per Capita Water Use	
10-Year Period	Average Base Daily Per Capita Water Use (gpcd)
1997-2006	126
1998-2007	125
1999-2008	125
2000-2009	123
2001-2010	120

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	125
2004-2008	124
2005-2009	121
2006-2010	115

3.2.2 Urban Water Use Targets

Retail suppliers must identify their urban water use reduction targets by utilizing one of four compliance methods identified in the 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 ET_o; plus 10 percent reduction in baseline commercial, industrial, and institutional (CII) water use by 2020.
- Compliance Method 3 – 95 percent of the applicable state hydrologic region target as identified in the 2020 Conservation Plan (DWR, 2010).
- Compliance Method 4 – A provisional method identified and developed by DWR through a public process released February 16, 2011, which aims to achieve a cumulative statewide 20 percent reduction. This method assumes water savings will be obtained through metering of unmetered water connections and achieving water conservation measures in three water use categories: (1) indoor residential, (2) landscape, water loss and other water uses and (3) CII.

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

Compliance Method 1 Calculation Summary

The Compliance Method 1 2020 water use target was calculated by multiplying the base daily gpcd by 80 percent. A 20 percent reduction in baseline water use would require a reduction of 25 gpcd by 2020 as shown in Table 3-6. The 2015 interim target would be 113 gpcd and water use target of 101 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)	126	113	101
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 Southwest 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 126 gpcd is less than 95 percent of the

hydrologic regional target of 142 gpcd, a review of the minimum reduction target was triggered per the DWR methodologies to ensure that the Southwest System

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

Table 3-7: 2020 Water Use Target Method 3 Calculation Summary			
Description	Baseline	2015 Interim Target	2020 Compliance Target
Per Capita Water Use (gpcd)	126	134	142
Percent Reduction	N/A	N/A	N/A

Minimum Compliance Reduction Target

Systems with a 5-year baseline per capita water use of greater than 100 gpcd must calculate a minimum water use reduction which the 2020 water use target cannot exceed. The minimum water use reduction compliance target is 95 percent of the 5-year 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 Southwest System is 119 gpcd, as presented in Table 3-8 below:

Table 3-8: Minimum 2020 Reduction Calculation Summary			
Description	5-Yr Average Baseline	2015 Interim Target	2020 Compliance Target
Minimum Allowable 2020 Target Calculation (gpcd)	125	122	119

3.2.3 Interim and Compliance Water Use Targets

The interim and compliance water use targets are provided per Section 10608.20(e) of the Act. Compliance Method 3 was selected by GSWC for the Southwest System, which in turn triggered the minimum reduction target since the Method 3 hydrologic region target (142 gpcd) is greater than the minimum 119 gpcd. As a result, Table 3-9 shows the 2020 SBX7-7 compliance target for the Southwest System is 119 gpcd and the 2015 interim water use target is 122 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
125	122	119

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

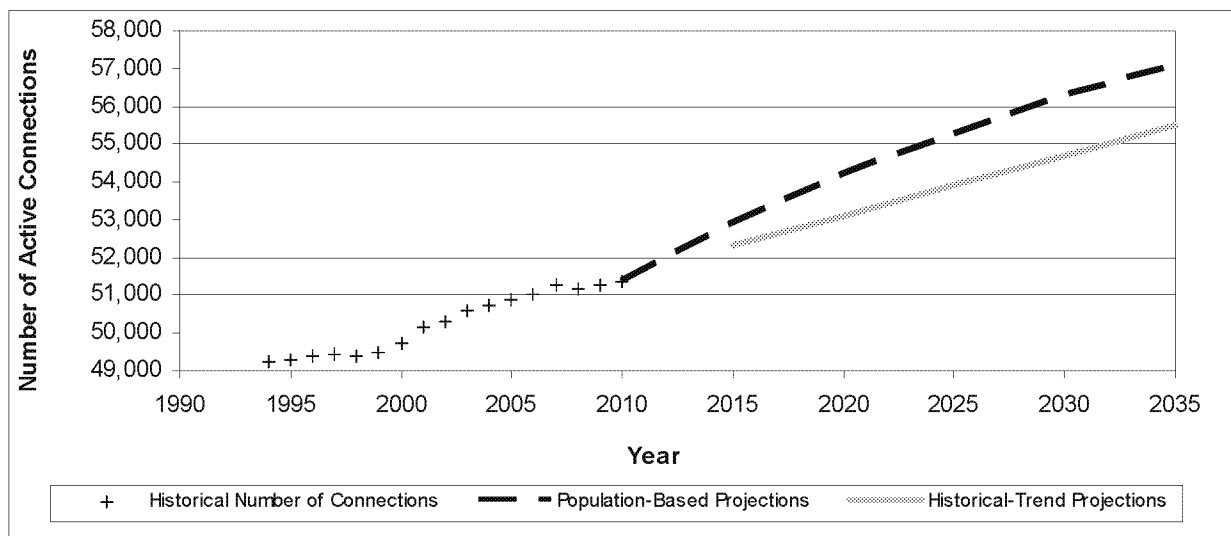


Figure 3-2: Historical and Projected Number of Metered Service Connections

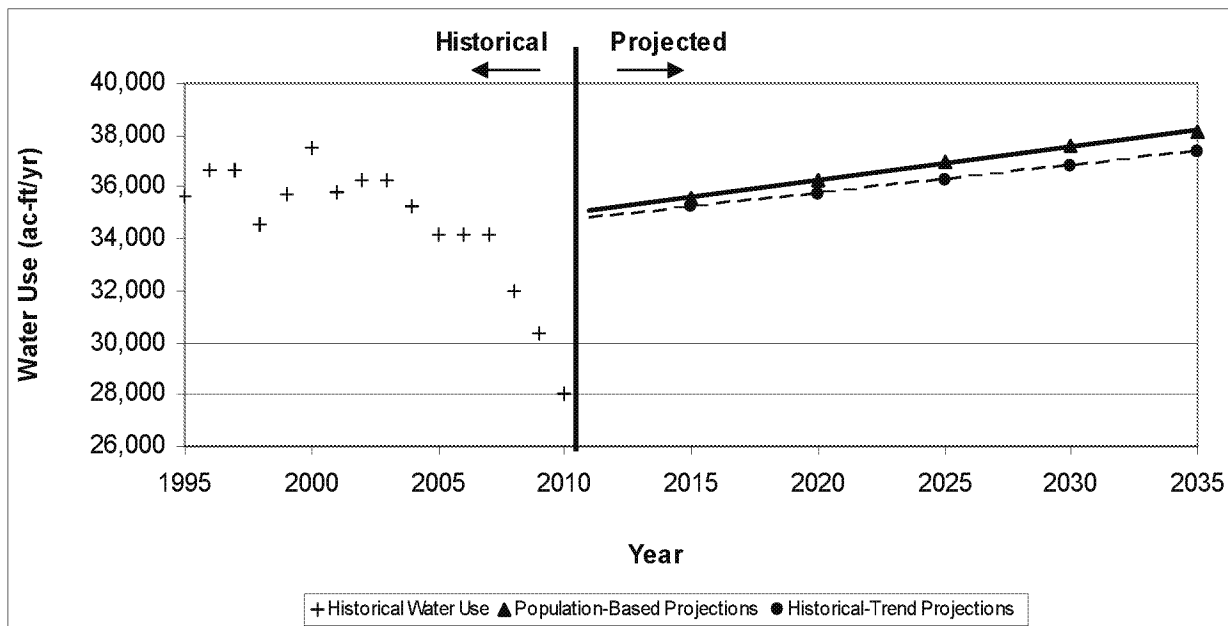


Figure 3-3: Historical Water Use and Future Water Use Projections

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

	Account Category								
	Single-Family	Multi-Family	Commercial	Industrial	Institutional/ Government	Landscape	Agriculture	Recycled	Other ⁽²⁾
Water Use Factor ⁽¹⁾	0.34	1.12	1.39	3.18	2.05	4.88	2.18	12.07	0.40

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.

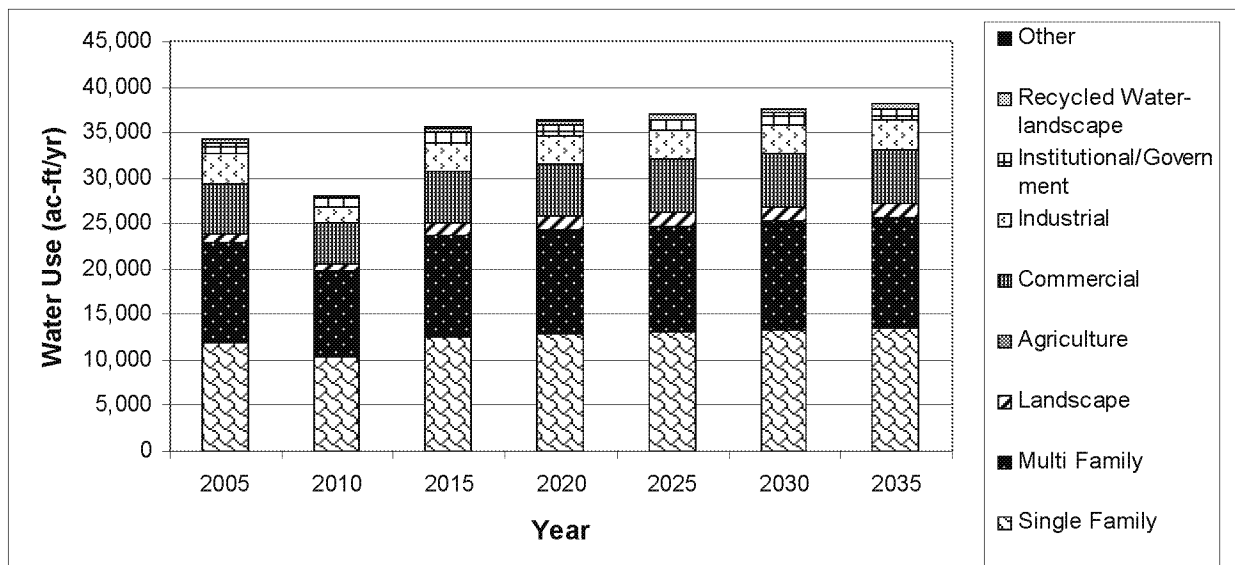


Figure 3-4: Projected Water Use by Customer Type

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

Year	Projection Type	Accounts by Type									
		Single-Family	Multi-Family	Commercial	Industrial	Institutional/ Government	Landscape	Agriculture	Recycled	Other ⁽³⁾	Total
2005 ⁽²⁾	No. of Accounts	35,322	9,708	3,959	966	572	218	1	28	85	50,859
	Water Use (ac-ft)	11,846	11,019	5,574	3,269	1,138	907	0	407	27	34,187
2010	No. of Accounts	35,895	9,558	3,992	951	580	307	2	35	62	51,382
	Water Use (ac-ft)	10,422	9,367	4,425	1,921	873	755	4	219	27	28,013
2015	No. of Accounts	37,007	9,854	4,066	969	591	313	3	36	64	52,903
	Water Use (ac-ft)	12,547	11,057	5,634	3,084	1,212	1,528	6	435	25	35,528
2020	No. of Accounts	37,991	10,116	4,112	980	598	317	3	37	64	54,218
	Water Use (ac-ft)	12,879	11,351	5,698	3,119	1,227	1,548	6	447	25	36,300
2025	No. of Accounts	38,746	10,318	4,168	993	606	321	3	37	65	55,257
	Water Use (ac-ft)	13,134	11,578	5,776	3,161	1,243	1,567	6	447	26	36,938
2030	No. of Accounts	39,479	10,513	4,226	1,007	614	325	3	38	66	56,271
	Water Use (ac-ft)	13,383	11,797	5,856	3,205	1,260	1,587	6	459	26	37,579
2035	No. of Accounts	40,073	10,671	4,283	1,021	623	330	3	38	67	57,109
	Water Use (ac-ft)	13,584	11,974	5,935	3,250	1,278	1,611	6	459	27	38,124

Notes:

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

3.4 Sales to Other Agencies

There are no anticipated sales to other agencies for the Southwest 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 Southwest 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 Southwest System, from 1997 through 2010, system water losses have averaged approximately 7 percent of the total production; therefore, this rate was incorporated into water demand projections. Table 3-13 provides a summary of projected system losses in the Southwest 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
System Losses ⁽³⁾	4,810	1,873	2,573	2,629	2,675	2,721	2,761
Total	4,810	1,873	2,573	2,629	2,675	2,721	2,761

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 Southwest System. Although there are no other water uses contributing to the total water demand in the Southwest 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 full compliance with the SBX7-7 interim and 2020 water use reduction targets are also provided in the Table 3-14 and Figure 3-5 for reference purposes. The SBX7-7 demand projections are slightly higher than the baseline water demand due to the fact that water use factors used for demand projections were calculated from the 2000-2010 time period, which had a per capita water use very close (within one gpcd) to the SBX7-7 compliance target for this system.

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	Projected Water Demand with SBX7-7 Compliance
2005	34,187	4,810	38,997	N/A
2010	28,013	1,873	29,886	N/A
2015	35,528	2,573	38,101	38,350
2020	36,300	2,629	38,929	38,457
2025	36,938	2,675	39,613	39,496
2030	37,579	2,721	40,300	40,503
2035	38,124	2,761	40,885	41,473

Notes:

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

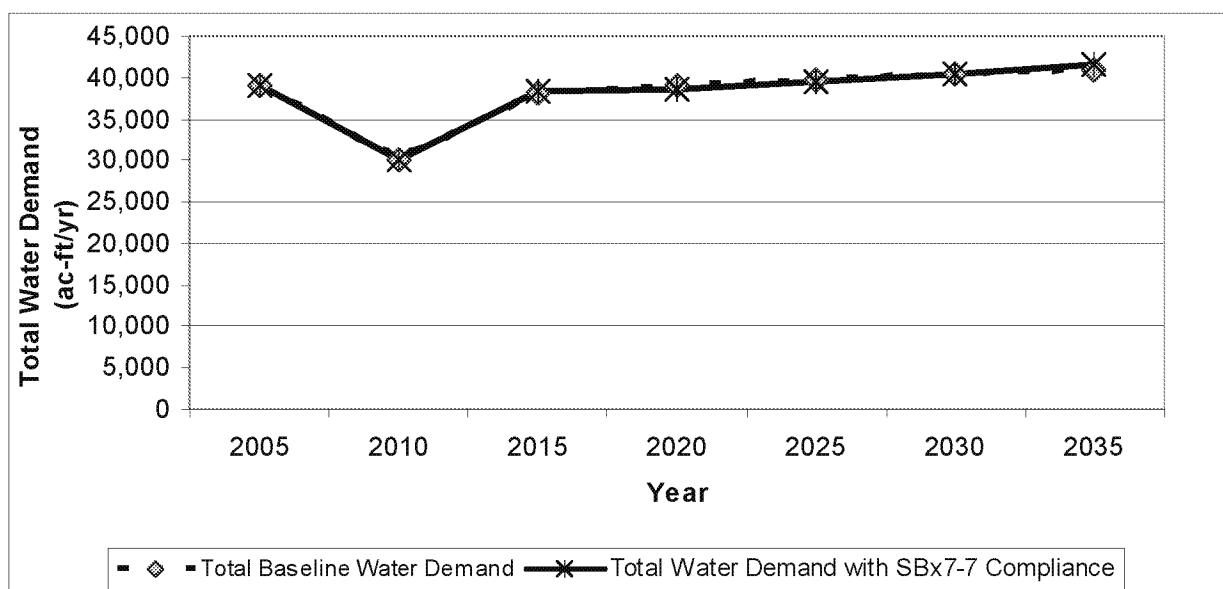


Figure 3-5: Total Water Demand

3.7 Data Provided to Wholesale Agency

GSWC provided the following preliminary projected water use data to the Central Basin Municipal Water District (CBMWD) and the West Basin Municipal Water District (WBMWD), the wholesale water suppliers for the Southwest System, as summarized in Table 3-15. Since then, the preliminary projections were submitted in 2010, GSWC has refined projections by integrating actual 2010 water use 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.

Wholesaler	Contracted Volume	2010	2015	2020	2025	2030	2035
CBMWD and WBMWD	N/A	31,796	32,878	33,763	34,510	35,266	35,896

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 of 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 Southwest 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	857	992	1,095	1,195	1,277
Multi-Family Residence	683	802	893	982	1,053
Total	1,540	1,793	1,988	2,177	2,330

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 Southwest System. The following chapter provides details in response to those requirements of this portion of the Act.

4.1 Water Sources

GSWC currently obtains its water supply for the Southwest System from three primary sources: imported water, recycled water and GSWC operated groundwater wells. Imported water is purchased from the WBMWD and the CBMWD. WBMWD and CBMWD obtain their imported water supplies from the Metropolitan Water District of Southern California (Metropolitan). Recycled water is also supplied by WBMWD. GSWC operates several groundwater wells within the Southwest System, and has adjudicated allowed groundwater pumping allocations in both the West Coast Basin and Central Basin. In addition to adjudicated groundwater pumping rights, GSWC also has the ability to lease groundwater rights when they are available.

Table 4-1, below, summarizes the approximate amount of water supplied from each source in acre feet per year. The availability of water from each source is estimated through the year 2035, in accordance with GSWC's long-term water supply planning projections and those of its wholesale suppliers. GSWC's water supply is projected to increase by about 35 percent from 2010 to 2035 to meet projected water demands, with most of this demand being met by imported water obtained from WBMWD and CBMWD, and leased groundwater. Leased groundwater quantities are determined annually for all GSWC systems that obtain groundwater from the Central and West Coast Basins. Therefore, quantifiable estimates of planned groundwater leases which would reduce the need to purchase water from WBMWD and CBMWD are not provided. Water demand projections are documented in Chapter 3.

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

Source	2010	2015	2020	2025	2030	2035
Imported water from WBMWD and CBMWD	12,594	29,560	30,388	31,072	31,759	32,344
Groundwater Supply, Central Basin ^(1,2)	3,230	639	639	639	639	639
Groundwater Supply, West Coast Basin ^(1,2)	13,843	7,502	7,502	7,502	7,502	7,502
Recycled water	219	400	400	400	400	400
Total	29,886	38,101	38,929	39,613	40,300	40,885

Notes:

1. Based on projected use in the Coastal Plain of Los Angeles County Groundwater Basin.
2. Projected supplies only include GSWC-owned groundwater rights. GSWC may lease additional groundwater rights to extract additional groundwater within the basin as available.
3. Table format based on DWR Guidebook Table 16.

In 2010, imported water made up approximately 42 percent of the available supply, 57 percent of the supply is from GSWC groundwater pumping and 1 percent is provided by recycled water sources. In future years, imported water could be as great as 80 percent or higher depending on groundwater allocations, the availability to lease additional groundwater rights, and groundwater quality considerations. Therefore, GSWC is actively pursuing the availability of a reliable, cost effective supply of imported water through the implementation of conjunctive use storage programs in the Central and West Coast basins, discussed in further detail below. Storage programs could utilize water imported from WBMWD and CBMWD or water imported from other suppliers. This water supply summary was developed based on information provided by Metropolitan, WBMWD, CBMWD and GSWC.

The sources and the reliability of each source are discussed in greater detail in the following sections. A brief description of the components of each source is provided below.

Imported water: Includes imported water from Metropolitan delivered through WBMWD and CBMWD, and potential transfer water from other sources for conjunctive use in the Central and West Coast Basins.

Recycled water: The Southwest System has received an average of 386 ac-ft/yr of recycled water from WBMWD over the past 10 years. Treated water from the Hyperion Wastewater Treatment Plant (WWTP) owned by the City of Los Angeles is provided to WBMWD. The 2009 WBMWD *Capital Implementation Master Plan for Recycled Water Systems* identified additional potential recycled water customers within the service area of the Southwest System. It is anticipated that additional customers will be served with recycled water for irrigation and industrial use within the next 20 years. Recycled water projects are discussed in Section 4.8.

Groundwater: GSWC is currently allowed to pump groundwater based on an adjudicated allowable pumping allocation in the Central and West Coast Basins. GSWC is allowed to pump additional groundwater beyond the pumping allocation in the West Coast and Central Basins through the use of leased water rights. In the future, GSWC plans on continuing to lease additional groundwater pumping rights in the Central and West Coast basins to meet projected demands.

4.2 Imported Water

CBMWD and WBMWD are large purveyors of water in southern California. The CBMWD and WBMWD provide water to several agencies including GSWC. GSWC obtains water from these districts for several systems including the Southwest System. Water imported from the CBMWD and WBMWD is delivered to the Southwest System through the following connections:

- Metropolitan CB-4 connection with a design capacity of 4,488 gallons per minute (gpm)
- Metropolitan CB-55 connection with a design capacity of 6,727 gpm
- Metropolitan WB-1 connection with a design capacity of 4,488 gpm
- Metropolitan WB-2A connection with a design capacity of 8,977 gpm
- Metropolitan WB-11 connection with a design capacity of 2,244 gpm
- Metropolitan WB-12 connection with a design capacity of 2,244 gpm
- Metropolitan WB-13 connection with a design capacity of 2,244 gpm
- Metropolitan WB-15 connection with a design capacity of 11,212 gpm
- Metropolitan WB-25 connection with a design capacity of 4,486 gpm
- Metropolitan WB-30 connection with a design capacity of 3,366 gpm
- Metropolitan WB-31 connection with a design capacity of 5,610 gpm
- Metropolitan WB-33 connection with a design capacity of 4,488 gpm

GSWC has 5-year agreements to purchase water with both WBMWD and CBMWD. The agreements between GSWC and WBMWD and CBMWD provide a firm supply of imported water at an average rate of 26,006 ac-ft/yr for the 5-year agreement period. The maximum annual supply is 42,073 ac-ft/yr, as shown in the summary of the water supply agreement quantities between the three agencies provided in Table 4-2. The total 5-year supply is 130,026 ac-ft. The agreements are both based on a two tier rate structure; Tier 1 for quantities

purchased within the agreement allocation and Tier 2 for supply purchase in excess of the agreement quantity. Additional water may be purchased by GSWC over the Tier 1 maximum annual allowance as available, but will be charged at the higher Tier 2 rate. Five (5) years is the regular contract term used by both wholesalers; it is expected that both contracts will be perpetually renewed prior to the conclusion of each respective 5-year term.

The 5-year purchase agreement between WBMWD and GSWC became effective January 1, 2008, and remains in effect until December 31, 2012. This agreement provides GSWC with an annual maximum allocation of 30,651 ac-ft/yr with a total purchase commitment of 91,953 ac-ft over the 5-year term of the agreement. A summary of the annual maximum purchased amount, 5-year total and 5-year average is presented in Table 4-2.

GSWC has a similar agreement with CBMWD that started on January 1, 2008 and ends on December 31, 2012. The Tier 1 annual maximum is 90 percent of the Base Allocation of 12,691 ac-ft/yr or 11,422 ac-ft/yr, with a total 5-year commitment of 38,073 ac-ft. The agreement stipulates that the purchase commitment for the 5-year period is 60 percent of the Base Allocation over the 5-year period ($60\% \times 5 \text{ years} \times 12,691 = 38,073 \text{ ac-ft}$). A summary of the CBMWD purchase agreement quantities is presented in Table 4-2.

Table 4-2: Summary of GSWC Imported Water Purchase Agreements			
	Maximum Tier 1 Annual Allocation (ac-ft/yr)	5-year Total (ac-ft)	5-Year Average (ac-ft/yr)
WBMWD Purchase Agreement ⁽¹⁾	30,651	91,953	18,391
CBMWD Purchase Agreement ⁽²⁾	11,422	38,073	7,615
Total	42,073	130,026	26,006

Notes:

1. Shared by all of GSWC's systems served by WBMWD, including Culver City and Southwest.
2. Shared by all of GSWC's systems served by CBMWD, including Artesia, Bell-Bell Gardens, Florence-Graham, Hollydale, Norwalk, Southwest and Willowbrook.

The Southwest System has 10 connections with WBMWD, rated at a total of 44,872 gpm (72,243 ac-ft/yr) and two with CBMWD, rated at 11,215 gpm (18,057 ac-ft/yr). Together, these connections have a total capacity of 51,620 gpm (83,304 ac-ft/yr). It should be noted that the connection capacity to deliver imported water to GSWC is significantly higher than the projected imported water supply that is expected to meet normal year demands.

Finally, GSWC maintains emergency connections with several adjoining municipalities to provide emergency supplemental water sources. GSWC has six emergency connections with the City of Inglewood with design capacities of 9,200 gpm (14,847 ac-ft/yr). The Southwest System has four additional emergency connections that are normally closed. Three are with the City of Hawthorne and one with Park Water Company with design capacities of 3,500 gpm (5,635 ac-ft/yr) and 1,250 gpm (2,017 ac-ft/yr), respectively. Nine storage tanks with a total volume of 11.4 million gallons serve as storage in the Southwest System.

4.3 Groundwater

The Southwest System is supplied by two wells in the Central Basin and 13 wells in the West Coast Basin of the Coastal Plain of the Los Angeles County Groundwater Basin.

4.3.1 Central Basin

The adjudicated Central Basin Watermaster Service Area overlies about 227 square miles of the Central Basin in the southeastern part of the Los Angeles Coastal Plain in Los Angeles County. The Watermaster Service Area is bounded by the Newport-Inglewood Uplift on the southwest, the Los Angeles-Orange County line on the southeast, and an irregular line that approximately follows Stocker Street, Martin Luther King Boulevard, Alameda Street, Olympic Boulevard, the boundary between the City of Los Angeles and unincorporated East Los Angeles, and the foot of the Merced and Puente Hills on the north. Twenty-three incorporated cities and several unincorporated areas are found within the Watermaster Service Area. Groundwater in the Central Basin provides a substantial portion of the water supply needed by the residents and industries in the overlying area (DWR, 2009). GSWC currently operates two wells in the Southwest System that pump from the Central Basin: Belhaven No. 3 and Belhaven No. 4.

The Central Basin is subdivided into four areas: The Los Angeles Forebay, the Montebello Forebay, the Whittier area, and the Central Basin Pressure Area. The Los Angeles Forebay is located in the northern part of the Central Basin where the Los Angeles River enters the Basin through the Los Angeles Narrows. The Montebello Forebay extends southward from the point at which the San Gabriel River enters the Central Basin through the Whittier Narrows. The Montebello Forebay is considered the most important area of recharge in the Central Basin (DWR, 2003). Both forebay areas have unconfined groundwater conditions and aquifers that extend up to 1,600 feet deep to provide recharge to the aquifer systems of the Central Basin (DWR, 1961). The Whittier area extends south and southwest from the Puente Hills to the axis of the Santa Fe Springs-Coyote Hills uplift. The Whittier area contains up to 1,000 feet of freshwater-bearing sediments (DWR, 2003). The Central Basin pressure area contains many aquifers of permeable sands and gravels separated by semi-permeable to low permeability sandy-clay and clay. Aquifers in the Central Basin pressure area extend approximately 2,200 feet below the surface (DWR, 1961). The aquifers in the Whittier area and Central Basin pressure area are generally confined, but areas with semi-permeable aquitards allow some interaction between aquifers (DWR, 2003).

The main freshwater-bearing aquifers are contained within the Holocene alluvium and the Pleistocene Lakewood and San Pedro Formations. The main productive aquifers within the Basin are the Gardena and Gage aquifers in the Lakewood Formation, and the Silverado, Lynwood, and Sunnyside aquifers in the San Pedro Formation (DWR, 1961). The Gardena and Gage aquifers are primarily comprised of sand and gravel and have a total maximum thickness of 280 feet (DWR, 2003). Aquifers within the San Pedro Formation are comprised of coarse sand, gravel, and sandy gravel; and have a combined maximum thickness of 800 feet (DWR, 2003).

Recharge occurs from: percolation of precipitation, stream flow, and return flow of applied waters such as irrigation; artificial recharge activities at spreading grounds; and injection of imported water into the Alamitos Barrier Project, a seawater intrusion barrier located in the southeastern part of the Basin. Recharge of the Basin occurs in the forebay areas due to the presence of permeable sediments. Recharge in the pressure area is precluded by overlying,

less permeable silt and clay units. Imported water from Metropolitan and recycled water from the Whittier and San Jose Treatment Plants is used for recharge in the spreading grounds in the Montebello Forebay area. The total groundwater storage capacity of the Central Basin is about 13,800,000 ac-ft (DWR, 1961). Groundwater flow is predominantly from the foothills northeast of the Central Basin towards the ocean to the southwest.

4.3.1.1 Central Basin Adjudication

In 1965, the Central Basin was adjudicated in the case *Central and West Basin Water Replenishment District vs. Charles E. Adams, et al* (Superior Court, County of Los Angeles, Case no. 786656). The Central Basin Judgment limits the amount of groundwater each party can extract annually from the Basin. This limit is referred to as the “Allowed Pumping Allocation” (APA), which is a fraction of each party’s water rights and is monitored by a court-appointed Watermaster. The Watermaster administers and enforces the terms of the Judgment and reports annually to the Court on significant groundwater-related events that occur in the Basin. The Court also retained jurisdiction to monitor ongoing management of the Basin, including the conjunctive use of Basin storage space, to assure the Basin will be capable of supplying sufficient water to meet local needs, including future growth and development.

The Central Basin adjudication limit for groundwater extraction across the entire basin is 217,367 ac-ft/yr. GSWC maintains an APA of 16,439 ac-ft/yr. GSWC’s APA is shared between all of their systems that extract groundwater from the Central Basin: Norwalk, Florence-Graham, Hollydale, Willowbrook, Artesia, Bell/Bell Gardens, and portions of the Southwest System as shown in Table 4-3. GSWC reports total groundwater extractions (on a per-well basis) to the Watermaster.

Three agencies, Los Angeles County Department of Public Works (LACDPW), Water Replenishment District of Southern California (WRDSC), and CBMWD, work with the water producers to ensure that the APA is available to the pumpers in the Central Basin. LACDPW operates and maintains the Rio Hondo and San Gabriel spreading grounds in the Montebello Forebay. LACDPW diverts and recharges storm flows from the Rio Hondo and San Gabriel Rivers, highly treated wastewater from the Sanitation Districts of Los Angeles County (LACSD) (Whittier and San Jose Wastewater Reclamation Plants), and purchased water from Metropolitan (including both State Water Project [SWP] water and Colorado River water). LACDPW, in conjunction with Orange County Water District, operates and maintains the Alamitos Barrier Project to recharge imported water into this injection barrier, which is designed to prevent seawater intrusion into the Central Basin. WRDSC collects a replenishment assessment from all groundwater producers in the Basin to pay for water supplies to replenish the Basin. Annually, by statute, WRDSC is required to determine replenishment requirements. WRDSC pays CBMWD for imported and recycled water for recharge into the Central Basin.

4.3.2 West Coast Basin

The adjudicated West Coast Basin underlies 160 square miles in the southwestern part of the Los Angeles Coastal Plain in Los Angeles County. The Basin is bounded on the west by Santa Monica Bay, on the north by the Ballona Escarpment, on the east by the Newport-Inglewood Uplift, and on the south by San Pedro Bay and the Palos Verdes Hills. Twenty incorporated cities and several unincorporated areas overlie the Basin. A substantial portion of the water needed by the residents and industries in the area overlying the Basin is pumped directly from groundwater storage (DWR, 2009).

The main freshwater-bearing aquifers are contained within the Holocene alluvium and the Pleistocene Lakewood and San Pedro Formations. The most productive aquifers within the Basin are the Gardena and Gage aquifers in the Lakewood Formation and the Silverado, Lynwood, and the unnamed aquifers in the San Pedro Formation (DWR, 1961). The Gardena and Gage aquifers are comprised primarily of fine to coarse sand and gravel and have a total maximum thickness of 320 feet (DWR, 2003). Wells completed in the Gage aquifer typically produces water at rates ranging from 100 to 1300 gpm. The aquifers within the San Pedro Formation are comprised of coarse sand, gravel, and sandy gravel; and have a combined maximum thickness of 1200 to 1400 feet (DWR, 2003). The Silverado aquifer, underlying most of the West Coast Basin, is the most productive aquifer in the Basin, yielding approximately 80 to 90 percent of the groundwater extracted annually (DWR, 1999).

Natural recharge to the West Basin's groundwater supply is largely limited to underflow from water spread in the Central Basin that flows through the Newport-Inglewood fault zone. Injection wells in the West Coast Basin Barrier and Dominguez Gap Barrier create mounds of freshwater that help protect the West Coast Basin from seawater intrusion. Other minor sources of recharge include percolation of precipitation, irrigation return flow from fields and lawns, and other applied surface waters (DWR, 2003). The storage capacity of the primary water producing aquifer, the Silverado aquifer, is estimated to be 6,500,000 ac-ft (DWR, 2003). Groundwater levels have risen about thirty feet since the Basin was adjudicated in 1961 (DWR, 2003). Injection along the West Coast Basin Barrier and Dominguez Gap Barrier causes groundwater to flow inland from the coast.

4.3.2.1 West Coast Basin Adjudication

In 1961, the West Coast Basin was adjudicated in the case *California Water Service Company, et al vs. City of Compton, et al* (Superior Court, County of Los Angeles, Case No. 506806, Appendix F). GSWC has adjudicated groundwater pumping rights to 7,502 ac-ft/yr in the West Coast Basin as shown in Table 4-3. The West Coast Basin Judgment limits the amount of groundwater each party can extract annually from the Basin. Groundwater producers held by the Judgment have the right to annually pump the volume of water as decided in the adjudication. These limits are monitored by a court-appointed Watermaster. The Watermaster administers and enforces the terms of the Judgment and reports annually to the Court on significant groundwater-related events that occur in the Basin. The Court also retained jurisdiction to monitor ongoing management of the Basin, including the conjunctive use of Basin storage space, to assure the Basin will be capable of supplying sufficient water to meet local needs, including future growth and development.

The West Coast Basin adjudication limit for groundwater extraction across the entire basin is 64,468 ac-ft/yr. GSWC maintains legal rights to 7,502 ac-ft/yr, as shown in Table 4-3. GSWC reports monthly groundwater extractions (on a per-well basis) to the Watermaster.

Table 4-3: Groundwater Pumping Rights	
Basin Name	Pumping Rights (ac-ft/yr)
Central Basin ⁽¹⁾	16,439
West Coast Basin	7,502

Notes:

1. Values are the allowed pumping allocation (80% of GSWC's adjudicated water right) for all seven systems GSWC owns and operates in the Central Basin. These systems are Artesia, Florence-Graham, Hollydale, Willowbrook, Bell-Bell Gardens, Norwalk, and portions of the Southwest System.
2. Groundwater pumping rights in the Central Basin are referred to as "Allowed Pumping Allocation."

GSWC currently operates 15 active wells in the Southwest System. Thirteen (13) of the active wells are in the West Coast Basin, and the remaining two are in the Central Basin as listed in Table 4-4. Well production capacity for the Southwest System is provided in terms of instantaneous capacity in gpm and annual yield in ac-ft/yr. The Southwest System has a total normal year active well capacity of 12,060 gpm (19,453 ac-ft/yr).

Table 4-4: Well Name and Capacity		
Well Name	Current Well Capacity (gpm) ⁽¹⁾	Current Well Capacity (ac-ft/yr)
Central Basin		
Belhaven No. 3	1,100	1,774
Belhaven No. 4	950	1,532
West Coast Basin		
Ballona No. 4	510	823
Ballona No. 5	750	1,210
Compton Doty No. 1	600	968
Dalton No. 1	500	807
Doty No. 1	600	968
Doty No. 2	1,000	1,613
Goldmedal No. 1	950	1,532
Southern No. 5	750	1,210
Southern No. 6	1,000	1,613
Truro No. 4	700	1,129
Yukon No. 4	800	1,290
Yukon No. 5	800	1,290
129 th Street No. 2	1,050	1,694
Total Capacity	12,060	19,453

Note:

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

Table 4-5 shows the groundwater pumping history for the Southwest System from calendar years 2005 through 2010. The total groundwater pumping for the Southwest System has ranged from 9,810 ac-ft/yr to 14,828 ac-ft/yr.

Table 4-5: Groundwater Pumping History by Southwest System (2005 to 2010) in ac-ft						
Basin Name	2005	2006	2007	2008	2009	2010
Central Basin	0	0	601	3,162	3,190	3,230
West Coast Basin	9,810	10,308	11,239	12,947	14,828	13,843
Percent of Total Water Supply	25%	27%	31%	45%	56%	58%

Notes:

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

The projected volume of groundwater needed to supply the Southwest System through 2035 are shown in Table 4-6. GSWC's groundwater rights and future leases within the Central Basin are shared among all GSWC systems in the basin. Therefore, the actual pumping amounts for wells in each system could vary based on GSWC's overall system management. Access to local groundwater and imported water affords GSWC flexibility to meet demands in all of its systems. In addition to GSWC's APA in the Central Basin and adjudicated rights in the West Coast Basin, GSWC also has the ability to annually lease groundwater rights, if needed and available. Since 1991, GSWC has leased up to 7,500 ac-ft/yr to augment their Central Basin APA and up to 6,475 ac-ft/yr to augment their West Coast Basin APA. As noted in other parts of this UWMP, it is possible that additional wells will be constructed and a greater volume of groundwater pumping allowed in accordance with the terms of a future groundwater basin management plan, and an amended or new Judgment that could be filed in the basins.

The projected groundwater pumping amounts by the Southwest System between 2010 and 2035 is shown in Table 4-6. The groundwater pumping amounts include adjudicated rights only. Ongoing groundwater leases (as available), consistent with current system operation strategies, would allow GSWC to obtain 50 percent or more of total water supply. However, since leases are determined annually, water provided by groundwater lease pumping cannot be reliably projected for the time period 2015 – 2035.

Table 4-6: Projected Groundwater Pumping Amounts by Southwest System to 2035 in ac-ft						
Basin Name	2010	2015	2020	2025	2030	2035
Central Basin	3,230	639	639	639	639	639
West Coast Basin	13,843	7,502	7,502	7,502	7,502	7,502
Percent of Total Water Supply	57%	21%	21%	20%	20%	20%

Notes:

1. Table format based on DWR Guidebook Table 19.
2. 2010 groundwater pumping includes APA and leased quantities. Projected values (2015 through 2035) are based on GSWC's allowed pumping allocation from adjudicated rights only. Leased groundwater rights as obtained in the future will result in groundwater constituting a greater percentage of total water supply to the system.
3. Years are reported in fiscal years (July 1 – June 30).

GSWC has historically obtained leases to augment its APA in the Central Basin, averaging 4,047 ac-ft/yr from 1999 to 2010. Leases for additional groundwater in the Central Basin are renewed annually, on an as-needed basis, and after an evaluation of the economic benefits to their rate payers. Table 4-7 presents the total unused APA from all groundwater users in the Central Basin, as reported by the Central Basin Watermaster, from 2005 to 2010. In each year, between 6,251 and 27,406 ac-ft/yr of available APA has not been pumped. A portion of this unpumped water could be available for GSWC to lease, on an annual basis, to augment their Central Basin APA and support overall water supply reliability. Water transfers and exchanges may also be undertaken as part of conjunctive use storage programs to be developed.

Table 4-7: Annual Unused APA in Central Basin	
Fiscal Year⁽²⁾	Unused APA^(1,3) (ac-ft/yr)
2005 - 2006	27,406
2006 - 2007	21,478
2007 - 2008	6,251
2008 - 2009	17,436
2009 - 2010	20,609

Notes:

1. Total APA for Central Basin for these years is 217,367 ac-ft/yr.
2. Fiscal year is July 1 through June 30.
3. Data reported in annual Watermaster reports.

GSWC has historically leased groundwater pumping rights in the West Coast Basin, averaging 4,732 ac-ft/yr from 1999 to 2010. Leases for additional groundwater pumping rights in the West Coast Basin are renewed annually, on an as-needed basis, and after an evaluation of the economic benefits to their rate payers. Table 4-8 presents the total unused APA from all groundwater users of the West Coast Basin, as reported by the West Coast Basin Watermaster, from 2005 to 2010. In each year, the West Coast Basin has maintained an unused APA between 20,062 and 27,677 ac-ft/yr. A portion of this unpumped water could be available for GSWC to lease, on an annual basis, to augment their West Coast Basin water rights and further increase their water supply reliability.

Table 4-8: Annual Unused Water Rights in West Coast Basin	
Fiscal Year⁽²⁾	Unused APA^(1&3) (ac-ft/yr)
2005 - 2006	27,677
2006 - 2007	27,529
2007 - 2008	25,767
2008 - 2009	20,666
2009 - 2010	20,062

Notes:

1. Total available rights for West Coast Basin for these years is 64,468 ac-ft/yr.
2. Fiscal year is July 1 through June 30.
3. Data reported in annual Watermaster reports.

4.4 Transfers and Exchanges

4.4.1 Central Basin

No specific transfer or exchange opportunities have been identified in the Central Basin for the Southwest System at this time; therefore, Table 4-9 has been left blank.

Table 4-9: Transfer and Exchange Opportunities in Central Basin					
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.

4.4.2 West Basin

GSWC maintains one long-term lease agreement with Chevron USA, Inc for 3,651 ac-ft/yr of water rights (Table 4-10). The lease expires at the end of Water Year 2013. No other specific transfer or exchange opportunities have been identified in the Southwest System at this time, although water transfers and exchanges may be undertaken as part of future conjunctive use storage programs.

Table 4-10: Transfer and Exchange Opportunities in West Basin in ac-ft/yr					
Source Transfer Agency	Transfer or Exchange	Short Term	Proposed Quantities	Long-Term	Proposed Quantities
GSWC	Transfer (Lease)	N/A	N/A	Through 2013	3,651

Note:

Table format based on DWR Guidebook Table 20.

4.5 Planned Water Supply Projects and Programs

If approved, GSWC plans to purchase and store water in the Central and West Coast basins in accordance with amendments to the existing court Judgments or new Judgments, the terms of which are presently unknown. Implementation of storage programs may involve constructing new wells and other infrastructure improvements. In addition, GSWC will construct new wells, pipelines, and treatment systems as part of its normal operations and maintenance. Such efforts are part of GSWC's ongoing Capital Investment Program to maintain its supply and meet distribution system requirements.

Another 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.

The projected future water supply from the Cadiz Project is shown in Table 4-11. Supply associated with a conjunctive use storage program in the Central and West Coast Basins is not determined.

Table 4-11: 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

Table 4-12 provides CBMWD and WBMWD’s existing and planned water sources available to the Southwest System.

Table 4-12: Existing and Planned Wholesale Water Sources in ac-ft/yr							
Wholesaler Sources	Contracted Volume	2010	2015	2020	2025	2030	2035
WBMWD and CBMWD	N/A	12,594	29,560	30,388	31,072	31,759	32,344

Note:

This table is based on DWR Guidebook Table 17.

The reliability of wholesale water supply available to meet annual water demand under an average, single-dry, and multiple-dry year condition for the Southwest System is provided in Table 4-13. The table includes a single-dry year and multiple-dry year supplies for 2035. The available supply from Metropolitan through WBMWD and CBMWD is higher than the supply needed to meet demands during various hydrologic conditions. It should also be noted that the available active connection capacity for imported water is much more than the supply quantities required to meet the projected water demands during various hydrologic conditions.

Table 4-13: Reliability of Wholesale Supply for Year 2035 in ac-ft/yr					
			Multiple-Dry Water Years		
Wholesaler	Average / Normal Water Year Supply	Single-Dry	Year 1	Year 2	Year 3
CBMWD and WBMWD	32,344 ⁽¹⁾	32,344	32,344	32,344	32,344
Percent Normal	100	100	100	100	100

Notes:

1. Projected CBMWD and WBMWD imported water values are calculated assuming groundwater is provided within the APA only. Leased groundwater rights as obtained in the future will result in groundwater constituting a greater percentage of total water supply to the system.
2. Table format based on DWR Guidebook Table 31.

Table 4-14 lists factors affecting wholesale supply for the Southwest System. Metropolitan intends to provide 100 percent supply reliability to WBMWD and CBMWD, which in turn provides 100 percent reliability of imported water supply to the Southwest System. Although no factors are expected to affect the overall reliability of supply, a detailed discussion of wholesale supply factors that were considered may be found in the respective CBMWD and WBMWD 2010 UWMPs.

Table 4-14: Factors Affecting Wholesale Supply				
Name of Supply	Legal	Environmental	Water Quality	Climatic
CBMWD and WBMWD	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 Southwest System. Section 10631 (i) of the Act requires an evaluation of desalination opportunities within the Southwest 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 Southwest 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 Southwest System. However, it is not possible at this point to quantify the amount of desalinated water that will be available for the GSWC's Southwest System. The following

discussion summarizes the desalination plans of water wholesalers. Metropolitan and its member agencies, including the Central and Western Basin Municipal Water Districts (CBMWD and WBMWD, respectively) 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.

The WBMWD is also involved in researching new water supplies in support of Metropolitan's desalination initiative, and sees ocean water desalination as an economically viable source of future water supply. In 2002 WBMWD initiated piloting efforts and operated a 40,000 gallons per day (gpd) seawater desalination pilot project with a goal of identifying optimal performance conditions and evaluating water quality. The data obtained from this pilot project indicate that the treatment approach of utilizing microfiltration pretreatment and reverse osmosis provides a reliable water quality that meets all State and Federal drinking water standards.

WBMWD is planning to install a full-scale seawater desalination plant with a capacity of 20,000 ac-ft/yr by 2017, and as a first step, dedicated the Oceanwater Desalination Demonstration Facility in November 2010. The demonstration project produces 100,000 gpd and will operate for 2 years. It will be used to evaluate the water quality, performance and treatment stability, optimize operational performance utilizing full scale process equipment, and acquire the necessary data to achieve regulatory compliance and approval. In addition, WBMWD anticipates developing a Desalination Program Master Plan in 2011 that will evaluate potential siting opportunities within WBMWD's service area that could accommodate a full-scale facility.

CBMWD 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 barriers are not employed within CBMWD's service area, so recovery and desalination of brackish groundwater is not a viable potential water resource. However, CBMWD could provide financial assistance to other SWP contractors or wholesalers such as WBMWD in the construction of their seawater desalination facilities in exchange for SWP supplies.

Table 4-15 provides a summary of current opportunities for water desalination. Any future desalination projects of Metropolitan and WBMWD would increase the reliability of water supply for the region. However, it is unknown at this time to what extent desalinated water supplies would directly benefit GSWC's systems.

Table 4-15: Summary of Opportunities for Water Desalination

Source of Water	Potential Yield (ac-ft/yr)	Anticipated Source Availability Date	Type of Use	Other
Seawater (WBMWD)	20,000	2017	Municipal	N/A
Seawater (Metropolitan) ⁽¹⁾	150,000	2025	Municipal	N/A

Note:

1. Metropolitan goal for seawater desalination does not identify specific sources, but instead documents a regional objective representative of all 26 Metropolitan retailers.

4.8 Recycled Water

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

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

- A 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.*
- 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.*
- 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.*
- 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.*
- 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.*
- 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 4-16 summarizes the role of the agencies that participated in the development of recycled water plans that affect the Southwest System of the GSWC.

Table 4-16: Role of Participating Agencies in the Development of the Recycled Water Plan

Participating Agencies	Role in Plan Development
Water agencies	GSWC provides data to WBMWD for its use in planning a potential recycled water distribution system expansion and identifying additional recycled water customers. WBMWD, acting as the recycled water wholesaler, has sole decision-making authority regarding the implementation of the recycled water plan and distribution network.
Wastewater agencies	WBMWD 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. The wastewater originates at the City of Los Angeles' Hyperion WWTP.
Groundwater agencies	Not applicable for this System.
Planning agencies	The city governments affected by any future recycled water projects may play a role in conducting economic analysis, data assessment, customer assessment, analyzing community impacts, defining customer involvement, establishing conceptual pipeline routes, and estimating costs.

Note:

The role of planning agencies is solely defined by West Basin Municipal Water District, the owner and operator of the recycled water distribution network affecting the Southwest System.

4.8.2 Wastewater Quantity, Quality, and Current Uses

Wastewater in the Southwest System is collected by gravity sewers and lift stations owned by the Cities of Inglewood, Hawthorne, Gardena, and Lawndale, as well as by the LACSD. The wastewater is transported through trunk sewers to the LACSD's Joint Water Pollution Control Plant (JWPCP), in Carson, California.

The JWPCP provides both primary and secondary wastewater treatment for an average dry weather flow (DWF) of 300 million gallons per day (mgd). The JWPCP has a design capacity of 400 mgd. The plant serves a population of approximately 3.5 million people throughout Los Angeles County. The treated wastewater is disinfected with hypochlorite and discharged to the Pacific Ocean through a network of outfalls. These outfalls extend 2 miles off the coast of Southern California near the Palos Verdes Peninsula to a depth of 200 feet.

Because the JWPCP treats wastewater for a larger population than exists in the Southwest System, an estimated per capita wastewater generation factor was used to calculate the volume of wastewater generated by the customers in the Southwest System. The wastewater generation factor is based on the population served and the average DWF for the JWPCP. The plant serves approximately 3.5 million residents and treats an average of 300 mgd, making the average per capita wastewater generation factor for JWPCP 86 gallons per day (gpd). Table 4-17 summarizes the estimates of existing and projected volumes of wastewater collected and treated in the Southwest System, based on the average generation factor described above. JWPCP only provides primary and secondary treatment, and does not meet recycled water quality standards. Therefore, 100 percent of the wastewater flow generated in the Southwest System is discharged into the Pacific Ocean through LACSD's network of outfalls (refer to Table 4-18).

Although the wastewater generated in the Southwest System is treated by LACSD and 100 percent of the wastewater flow is discharged, the Southwest System does receive recycled water that originates in the City of Los Angeles' Hyperion WWTP. This recycled water source is provided by WBMWD and described in more detail below. Table 4-19 summarizes the sales of recycled water for the year 2010.

Table 4-17: Estimates of Existing and Projected Wastewater Collection and Treatment in ac-ft/yr (mgd) for the Southwest System							
	2005⁽²⁾	2010⁽²⁾	2015	2020	2025	2030	2035
Projected population in service area	269,331	271,861	280,629	288,509	296,301	303,858	311,135
Wastewater collected and treated in service area	25,945 (23.16)	26,189 (23.38)	27,034 (24.13)	27,793 (24.81)	28,543 (25.48)	29,271 (26.13)	29,972 (26.76)
Quantity that meets recycled water standard	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 21.
2. Based on actual year.
3. Values of wastewater collected and treated are estimated. For a description of the methodology, refer to the text.

Table 4-18: Estimates of Existing and Projected Disposal of Non-Recycled Wastewater in ac-ft/yr (mgd) for the Southwest System								
Method of Disposal	Treatment Level	2005⁽²⁾	2010⁽²⁾	2015	2020	2025	2030	2035
Pacific Ocean Discharge	Secondary	25,945 (23.16)	26,189 (23.38)	27,034 (24.13)	27,793 (24.81)	28,543 (25.48)	29,271 (26.13)	29,972 (26.76)

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 4-19: Existing Recycled Water Use in the Southwest System		
Type of Use	Treatment Level	2010 Use (ac-ft/yr)
Landscape Irrigation	Tertiary	219

4.8.3 Potential and Projected Use

The WBMWD acquires, controls, distributes, and sells recycled water to several cities, agencies, and customers in the greater Los Angeles area. The Southwest System currently receives recycled water from WBMWD as part of the district's West Basin Recycled Water Project (WBRWP). The WBRWP collects secondary effluent from the Hyperion WWTP and treats it to meet Title 22 recycled water standards at WBMWD's West Basin Water Recycling Facility in El Segundo, California. The recycled water produced by WBMWD is used throughout the region for beneficial uses such as landscape irrigation, industrial applications (including cooling water and boiler feed water), and other purposes such as groundwater injections to control seawater intrusion.

WBMWD owns all of the existing recycled water pipelines that fall within the boundaries of the Southwest System and is planning to expand its distribution system to continue offsetting potable water demands in its service area. In 2009 WBMWD completed their *Capital Implementation Master Plan for Recycled Water Systems* (Plan). The Plan identifies and prioritizes capital improvement projects required to expand the recycled water distribution system. The capital improvement projects identified within the Southwest system for phased construction in fiscal years 2015 through 2020 are presented in Table 4-20 below. The potential customers identified for these projects are primarily parks, schools and other facilities that would use the recycled water for landscape irrigation.

Table 4-20: WBMWD Recycled Water Capital Improvements Project for the Southwest System	
Project Description	Average Demand (ac-ft/yr)
Gardena Lateral – Normandie Ave	165
Gardena Lateral Normandie and Vermont	70
Gardena Lateral – Van Ness	55
Dyehouse Lateral	220
Total	510

WBMWD records show that the average recycled water used in the Southwest System from 2000 through 2010 was 374 ac-ft/yr, and the maximum (in year 2007) was 546 ac-ft/yr. Given that this maximum demand was met by the WBMWD supply, the value of 546 ac-ft/yr is assigned as the current potential recycled water use for the Southwest System. The total potential recycled water use for the Southwest System is calculated as the sum of the existing potential recycled water use (546 ac-ft/yr) and the future potential use (510 ac-ft/yr) resulting from projects identified in the Plan, which would take effect in 2020. This is summarized in Table 4-21.

Refer to Table 4-23 for a comparison of the actual recycled water use in 2010 versus the projections made in the 2005 UWMP. Note that the actual use for the year 2010 was significantly smaller than projected. This may have occurred because the 2005 UWMP assumed a linear increase in recycled water use followed by a plateau at 800 ac-ft/yr. Due in part to the economic downturn in 2008, however, much of the industrial applications for recycled water in the Southwest System have declined, and the total recycled water use has decreased since its

peak in 2007. Thus, the projected recycled water use (Table 4-22), is calculated using the observed average use (374 ac-ft/yr) plus the projected increase in demand summarized in Table 4-20, above.

Although there is great potential to increase recycled water use in their service area, there are challenges and limitations in connecting customers. WBMWD lists proximity to recycled water pipelines, capacity and pressure to serve, and retrofit cost-feasibility as the challenges that limit the extent of recycled water distribution in the West Basin (WBMWD 2010). However, if and when additional customers are identified, GSWC will work with WBMWD to determine the feasibility of increasing the potential recycled water use for the Southwest System and additional demands will be updated in future UWMPs.

Table 4-21: Potential Future Recycled Water Uses in ac-ft/yr									
Type of Use	Treatment Level	Description	Feasibility	2010 ⁽²⁾	2015	2020	2025	2030	2035
Landscape/Industrial	Tertiary	Industrial/Landscape	Good	219	546	1,056	1,056	1,056	1,056
Total				219	546	1,056	1,056	1,056	1,056

Notes:

1. This table is based on the DWR Guidebook Table 23.
2. Based on actual year.

Table 4-22: Projected Future Recycled Water Use in Southwest System in ac-ft/yr					
Type of Use	2015	2020	2025	2030	2035
Industrial/Landscape Irrigation	374	884	884	884	884

Table 4-23: Comparison of Recycled Water Uses—Year 2000 Projections versus 2005 Actual		
Type of Use	2005 Projection for 2010	2010 Actual Use
N/A	750	219

Note:

This table is based on the DWR Guidebook Table 24.

4.8.4 Optimization and Incentives for Recycled Water Use

GSWC provides data to WBMWD for planning system expansion and identifying potential recycled water customers. Once identified, GSWC works with the wholesaler in meeting with potential customers and explaining the benefits of using recycled water. The wholesaler then leads the way in securing a contract and implementing retro-fit installations for conversion to recycled water. GSWC participates in the local workshops held by the wholesalers and distributes conservation materials and literature, including a discussion of recycled water and its benefits at local community events. GSWC has developed a special recycled water tariff approved by the CPUC, and provides a discount from the potable water rates.

Table 4-24 provides a summary of the actions performed by GSWC to encourage recycled water use and the resulting projected use. For the Southwest System, it is assumed that the financial incentives of using recycled water account for 100 percent of the projected recycled water. The CPUC encourages recycled water use and is currently conducting a proceeding to evaluate targets for recycled water use, and potential penalties for not participating in the program. Additional program actions such as this may support increased recycled water use within the service area in the future.

Table 4-24: Methods to Encourage Recycled Water Use and the Resulting Projected Use in ac-ft/yr					
Actions	2015	2020	2025	2030	2035
Financial Incentives	374	884	884	884	884

Note:

This table is based on the DWR Guidebook Table 25.

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 Southwest System currently meets the demand of the entire system with their existing groundwater sources and imported treated water from Metropolitan delivered through the West and Central Basin Municipal Water Districts.

Surface water served in the Southwest System is Metropolitan treated water received through 12 active interconnections. Metropolitan is responsible for meeting all drinking water standards as water leaves the treatment plant and at all inter-connections. While it is assumed that Metropolitan will be responsible for any required water treatment, this may not be the case for parameters monitored in the distribution system, such as disinfection byproducts.

5.2.1 Groundwater Quality

The groundwater wells in the Southwest System meet all current California Title 22 drinking water standards before water is delivered to customers. Table 5-1 summarizes water quality issues and recommendations for wells within the Southwest System. The following discussion relates to contaminants with maximum contaminant levels (MCLs) that are either existing or have been proposed by the U.S. Environmental Protection Agency (USEPA) and/or CDPH.

Drinking water regulations pertaining to emerging contaminants of concern, such as chromium (VI), nitrosamines, and volatile organic compounds (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.

Manganese. Five wells within the Southwest System are affected by manganese (Mn) which originates from leaching of natural deposits and has a California secondary MCL of 50 micrograms per liter (µg/L). In order to address the Mn issue, four out of the five affected wells have existing treatment processes, including pyrolusite media and dual media filtration.

Hydrogen Sulfide Odor. Hydrogen Sulfide (H₂S) is another naturally occurring constituent within the Southwest System affecting 7 of the total 15 wells. Currently H₂S is unregulated; however the odor is being reduced by oxidation with chlorine.

Iron. Iron levels are very closely monitored in the Southwest System although no sources exceed the California secondary MCL of 300 µg/L.

Table 5-1: Summary of Water Quality Assessment					
Well	Current Well Capacity (gpm) ⁽¹⁾	Status	Water Quality Issue/Concern	Existing Treatment	Recommendations
129 th St. No. 2	1,050	Active	None	None	
Ballona No. 4	510	Active	H ₂ S Odor	None	Future H ₂ S odor removal
Ballona No. 5	750	Active	H ₂ S Odor	None	Future H ₂ S odor removal
Belhaven No. 3	1,100	Active	None	None	
Belhaven No. 4	950	Active	None	None	
Compton-Doty No. 1	600	Active	None	None	
Dalton No. 1	500	Active	None	None	
Doty No. 1	600	Active	Mn, H ₂ S Odor	Removal with Pyrolusite Media for Mn, and H ₂ S odor removal	
Doty No. 2	1,000	Active	Mn, H ₂ S Odor	Removal with Pyrolusite Media for Mn, and H ₂ S odor removal	
Goldmedal No. 1	950	Active	Mn	Dual media filter for Mn removal	
Southern No. 5	750	Active	Mn	Dual media filter for Mn removal	
Southern No. 6	1,000	Active	Mn	None	Continue monitoring and possibly install Mn treatment system in the future
Truro No. 4	700	Inactive	H ₂ S Odor, Mn	Aeration for H ₂ S odor removal and dual media filter for Mn removal	To be destroyed
Yukon No. 4	800	Active	H ₂ S Odor	Free chlorination for H ₂ S odor removal	See section 5.2.2
Yukon No. 5	800	Active	H ₂ S Odor	Free chlorination for H ₂ S odor removal	See section 5.2.2

Note:

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

5.2.2 Distribution System Water Quality

Distribution System water quality monitoring is performed for several water quality parameters in the Southwest System, including general physical properties, presence of coliform bacteria, disinfectant and disinfection byproduct levels, and corrosivity of the water by monitoring lead and copper levels at customers' water taps. All monitoring parameters and levels currently meet drinking water standards and it is expected that these standards will continue to be met in the future.

The Southwest System utilizes an approved Sample Siting Plan for the collection, recording, and reporting of all bacteriological analyses. The Southwest System has also established a 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.

Drinking water standard levels for disinfection by-products will be lowered in the future in accordance with the Stage 2 D/DBP Rule. Under the Stage 2 D/DBP Rule, the results of sampling will be averaged each quarter at each sampling site, and the running annual average of the results at each location must meet the MCLs. The locational running annual average at each site must be below 80 µg/L for total trihalomethanes (TTHM) and 60 µg/L for 5 Haloacetic Acids (HAA5). The Southwest system has one sample location with TTHM concentrations that will not meet the Stage 2 DBP Rule. The water source for this location is the Yukon plant which uses chlorination treatment for controlling odor caused by hydrogen sulfide. Due to the higher level of organics in the well source, extended contact time with free chlorine produces higher levels of TTHMs.

The Southwest System must comply with the Stage 2 DBP Rule by April 2012. Therefore, a different treatment process needs to be in place that adequately removes the hydrogen sulfide odor without creating high levels of TTHMs. Currently an alternative is being evaluated.

5.3 Projected Water Quality Impacts

There are no known or projected impacts to water quality within the Southwest System except for Truro Well No. 4 through 2035 as shown in Table 5-2.

Table 5-2: Summary of Projected Water Supply Impacts Due to Water Quality in ac-ft/yr

Water Source	2010	2015	2020	2025	2030	2035
129 th St. Well No. 2	0	0	0	0	0	0
Ballona Well No. 4	0	0	0	0	0	0
Ballona Well No. 5	0	0	0	0	0	0
Belhaven Well No. 3	0	0	0	0	0	0
Belhaven Well No. 4	0	0	0	0	0	0
Compton-Doty Well No. 1	0	0	0	0	0	0
Dalton Well No. 1	0	0	0	0	0	0
Doty Well No. 1	0	0	0	0	0	0
Doty Well No. 2	0	0	0	0	0	0
Goldmedal Well No. 1	0	0	0	0	0	0
Southern Well No. 5	0	0	0	0	0	0
Southern Well No. 6	0	0	0	0	0	0
Truro Well No. 4	0	(1,290)	0	0	0	0
Yukon Well No. 4	0	0	0	0	0	0
Yukon Well No. 5	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 Southwest System currently obtains its water supply from two sources: groundwater and imported Metropolitan water from WBMWD and CBMWD. Since Metropolitan obtains water supply from a number of different sources, conditions in local and distant areas can affect the reliability of supplies. The following discussion summarizes the reliability of GSWC's water supply sources for the Southwest System. In general, GSWC's supply is expected to be 100 percent reliable through 2035. This reliability is a result of the following:

- Adjudicated groundwater rights in the Central and West Coast basins;
- Availability of contractual purchases of leased groundwater;
- Benefits of conjunctive use storage programs to be developed in accordance with amendments to the court Judgment that are anticipated at some time in the future;
- Water supplies available from the supplemental supplier, Metropolitan, projected to be 100 percent reliable;
- Conservation derived supply; and
- Availability of recycled water.

6.1.1 Wholesale Water Supply Reliability

WBMWD and CBMWD, the local wholesalers who supply imported water to GSWC are largely pass-through entities which obtain nearly all their imported water from Metropolitan. Metropolitan has prepared several resource management plans which are intended to document strategies that will be utilized to optimize the use of its available resources during both surpluses and droughts to minimize the probability of severe shortages, as well as shortage allocations. This section includes a discussion of Metropolitan, WBMWD, and CBMWD water supply reliability considerations. Significant additional supply reliability detail may be obtained from the CBMWD and WBMWD 2010 UWMPs and Metropolitan's 2010 Regional Urban Water Management Plan.

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, 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 SWP 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 WBMWD Supply Reliability

WBMWD expects its supplies to be 100 percent reliable through 2035 for normal, single and multiple-dry year scenarios. WBMWD's plan for reliability focuses on water resource diversification. WBMWD's Draft 2010 UWMP documents a planned shift from a 62 percent dependence on Metropolitan imported water to 36 percent of overall supply coming from Metropolitan by 2030 as shown in Table 6-1. This would be accomplished by employing a diversified water resources portfolio incorporating increased supply from recycled water, desalination, and conservation-derived supply initiatives.

Table 6-1: WBMWD Service Area Projected Water Supply Percent by Category

Supply Source	2010 Percent of Supply	2030 Percent of Supply
Conservation-derived supply	8%	11%
Recycled Water	8%	19%
Imported Water (MWD)	62%	36%
Groundwater	22%	23%
Desalination	0%	11%

Note:

West Basin Municipal Water District 2010 Draft Urban Water Management Plan.

6.1.1.3 CBMWD Supply Reliability

CBMWD also expects its overall supply reliability to be 100 percent through 2035 for normal, single, and multiple-dry year scenarios. CBMWD's Draft 2010 UWMP states that their plan for reliability focuses on water resource diversification. CBMWD plans to further diversify its water resource mix during the next 25 years with the expansion of the recycled water system and increased conservation efforts. CBMWD has stated that imported supplies will decrease with the increase of recycled water and conservation.

6.1.2 GSWC's Groundwater Supply Reliability

6.1.2.1 Central Basin

Any water extracted from the Central Groundwater Basin requires water rights. GSWC has a total APA of 16,439 ac-ft/yr in the Central Basin that is divided between all of their systems in the Basin. GSWC maintains a legal right to pump their Central Basin APA each year. GSWC also leases groundwater rights to extract additional groundwater in the Central Basin annually, on an as-needed basis. Historically, GSWC has leased up to an additional 7,500 ac-ft/yr in the Central Basin, averaging 3,550 ac-ft/yr from 1991 to 2010. If GSWC's actual demands exceed the adjudicated limits, GSWC can use leased rights to increase their allowed pumping.

Three agencies, LACDPW, WRDSC, and CBMWD, work together with the groundwater producers such as GSWC to ensure that the APA is available to be pumped from wells in the Central Basin. LACDPW operates and maintains the Rio Hondo and San Gabriel spreading grounds in the Montebello Forebay. LACDPW diverts and recharges storm flows from the Rio Hondo and San Gabriel Rivers, highly treated wastewater from the Los Angeles County Sanitation Districts (Whittier and San Jose Wastewater Reclamation Plants), and imported water from Metropolitan (including both SWP water and Colorado River water). LACDPW, in conjunction with Orange County Water District, operates and maintains the Alamitos Barrier Project which recharges imported water into a series of injection wells, designed to prevent seawater intrusion into the Central Basin. WRDSC collects a replenishment assessment from all groundwater producers in the Basin to pay for water supplies to replenish the Basin. Annually, by statute, WRDSC is required to determine replenishment requirements. WRDSC pays CBMWD for imported and recycled water for recharge into the Central Basin.

These agencies have worked cooperatively to increase the reliability of the Central Basin groundwater supply. Recycled water is one of the cornerstones of the CBMWD's efforts to

augment local supplies and reduce dependence on imported water. The use of recycled water assists in meeting demand for non-potable applications such as landscape irrigation, commercial and industrial processes, and seawater barriers (CBMWD, 2010). CBMWD currently delivers an average of 4,800 ac-ft/yr of recycled water and is planning to increase recycled water deliveries to 11,000 ac-ft/yr by 2020.

WRDSC provides recycled water to LACDPW for recharge as part of the Montebello Forebay Groundwater Recharge Project. LACDPW recharges up to 45,000 ac-ft/yr of recycled water annually through the spreading grounds. In addition, WRDSC plans to reduce imported water use at the Alamitos Barrier by 3,000 ac-ft/yr by replacing it with the delivery of recycled water through WRDSC's Leo Vander Lans Recycling facilities in Long Beach (CBMWD, 2005). Given the high cost of recycled water and the low cost of storage programs, it is possible that other purchasers of the recycled water may be found if regional needs are otherwise met in a groundwater management program to be developed according to the terms of an amended judgment.

One of the key tools that could be used to ensure future supply reliability is groundwater storage. Over the past 8 years, the groundwater producers, cities and regulated water utilities, who have extraction rights in the Central and West Coast Groundwater Basins have been working with DWR and other regional water agencies to develop an integrated water storage plan for conjunctive use in both basins. However, as mentioned previously, DWR, acting as the court appointed Watermaster, has determined that stored water above the pumping allocation has no legal standing under the Central Basin Judgment (Judgment). This opinion has been upheld to date through court proceedings, including a May 12, 2010 decision in Los Angeles County Superior Court. This decision established that storage rights were not encompassed in the original Judgment, and a new complaint, proceeding and trial would need to be held to develop a new Judgment including storage rights. This decision has been appealed by proponents of a storage program, but a final review of the appeal has not been completed.

Despite the recent Court findings, CBMWD has started working on a groundwater storage plan it could implement without amending the existing Judgment, titled "Central Basin Groundwater Storage Plan: A Blueprint for Future Reliability", and in 2011 released the Initial Study of the project for California Environmental Quality Act compliance. The purpose of the plan is to implement an aquifer storage plan that will improve water supply reliability through the groundwater basin. It is GSWC's position that CBMWD's current plans fall short of what is needed to ensure long-term reliable groundwater supply in the basin in that the plan does not include an amendment to the existing Judgment and does not fully address the costs or financial impacts of developing a plan. While GSWC supports implementation of conjunctive use management in the basin, any future management program must include an amendment to the existing Judgment or a new Judgment.

6.1.2.2 West Coast Basin

GSWC has a total APA of 7,502 ac-ft/yr in the West Coast Basin. GSWC maintains a legal right to pump their adjudicated rights each year. GSWC also leases groundwater rights to extract additional groundwater in the West Coast Basin annually, on an as-needed basis. Historically, GSWC has leased up to 6,475 ac-ft/yr in the West Coast Basin. If GSWC's actual demands exceed the adjudicated limits, GSWC can use leased rights to increase their allowed pumping.

Three agencies, LACDPW, WRDSC, and WBMWD, collaborate with the groundwater producers such as GSWC to ensure that the APA is available to be pumped from wells in the West Coast Basin. LACDPW operates and maintains the West Coast Barrier Project and Dominguez Gap

Barrier Projects, which maintain groundwater levels at the coast line to prevent seawater intrusion. LACDPW injects a combination of equal parts of highly treated wastewater from the WBMWD's water recycling plant located in El Segundo and imported water from Metropolitan (including both SWP water and Colorado River water). WBMWD is expanding the West Basin recycled water plant to allow up to 100 percent recycled water injection into the West Coast Basin Barrier Project. LACDPW injects imported water from Metropolitan (including both SWP water and Colorado River water) into the Dominguez Gap Barrier Project. WRDSC is working with the City of Los Angeles to replace up to 50 percent of the imported water injected into the Dominguez Gap Barrier Project with highly treated wastewater from the City's Terminal Island wastewater reclamation plant. WRDSC collects a replenishment assessment from all groundwater producers in the Basin to pay for water supplies to replenish the Basin, which is through the injection barrier. By statute, WRDSC is required to determine replenishment requirements annually. WRDSC pays WBMWD for imported and recycled water for recharge into the West Coast Basin.

In addition, during years when surplus imported water is available from Metropolitan, the retail suppliers may use more imported water and pump less groundwater in order to take advantage of the storage capacity of the basin and increase the overall water supplies to the basin through this conjunctive use operation.

6.1.3 Southwest System's Water Supply Reliability

Water supply projections for imported, recycled, and groundwater sources during normal year, single-dry year, and multiple-dry years scenario for the Southwest system are presented in Table 6-2. 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. Ongoing groundwater right leases (as available), consistent with current system operation strategies would allow GSWC to obtain 50 percent or more of total water supply which essentially increases supply reliability. However, since leases are determined annually, groundwater lease pumping estimates are not available for the water supply reliability analysis.

As described above, imported water supplies, whether from Metropolitan or other parties in conjunctive use storage programs that are anticipated to be developed, are expected to be 100 percent reliable and able to meet demands through 2035. Therefore, the imported 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 available supplies are sufficient to meet projected demands under all anticipated hydrologic conditions – whether it be from water transfers stored in conjunctive use storage programs that could be developed, or core or buffer water supplies from Metropolitan. Recycled water is expected to be available during all hydrologic conditions because it is not subject to hydrologic variations.

Table 6-2: Supply Reliability for the Southwest 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
Imported water from CBMWD and WBMWD	32,344	32,344	32,344	32,344	32,344
Groundwater APA Central Basin	639	639	639	639	639
Groundwater APA West Coast Basin	7,502	7,502	7,502	7,502	7,502
Recycled water, WBMWD	400	400	400	400	400
Total	40,885	40,885	40,885	40,885	40,885
Percent of Normal		100%	100%	100%	100%

Notes:

1. Table format based on DWR Guidebook Table 28.
2. Groundwater APA pumping supply reliability does not include potential groundwater right leases.

Table 6-3 lists single-dry year and multiple-dry year periods for both groundwater and imported water supplies. The single-dry year and multiple-dry year periods are based on WBMWD's and CBMWD's analysis on the lowest average precipitation for a single year and the lowest average precipitation for a consecutive multiple-year period, respectively. WBMWD's and CBMWD's estimates suggest that fiscal year (FY) 2009-10 represents a normal water year based on average rainfall over the last 100 years. FY 2006-07 represents the single-dry year, and the years of FY 2006-07, 2007-08, and 2008-09 represent the driest three consecutive years. WBMWD and CBMWD have determined that they can meet their projected water demands for these years, so the supply is equal to the projected demands. Moreover, effective management of the Basins in accordance with amendments to the existing court Judgments that could be developed in the future would greatly enhance the entire region's water supply reliability, allowing programs to be implemented at a lower cost.

Again, the Central Basin is operated to store surplus waters (storm water, recycled water, and imported water) when these waters are available, and then to draw down the basin in drier years to meet the requirements of the APA established under the West Coast and Central Basin Judgments. The Basins have proven to be very reliable under extreme climate conditions for over 40 years and are expected to remain reliable through 2035.

Table 6-3: Basis of Water Year Data		
Water Year Type	Base Year(s)	Historical Sequence
Normal Water Year	FY 2009-2010	1910 – 2010
Single-Dry Water Year	FY 2006-2007	1910 – 2010
Multiple-Dry Water Years	FY 2006-2009	1910 – 2010

Notes:

1. Analysis of precipitation data was provided by CBMWD and WBMWD.
2. Table format based on DWR Guidebook Table 27.

6.1.4 Factors Resulting in Inconsistency of Supply

Table 6-4 presents factors that could potentially result in inconsistency of supply for the Southwest System. As described above, GSWC's groundwater rights are adjudicated and its lease rights are contractual. While there is legal uncertainty regarding the terms under which storage programs could be implemented in the Central and West Coast basins, this legal uncertainty is ultimately expected to be resolved through amendments to the existing court Judgment based upon the outcome of ongoing discussions with DWR. While the legal uncertainty regarding storage affects the cost of water, it does not affect the reliability of the regional supply as a result of Metropolitan's core and buffer water supply programs which are expected to assure the region, including GSWC customers, of 100 percent reliability (Metropolitan 2010 UWMP).

Table 6-4: Factors Resulting in Inconsistency of Supply				
Name of Supply	Legal	Environmental	Water Quality	Climatic
Imported water (WBMWD and CBMWD)	Please refer to WBMWD and CBMWD 2010 UWMPs.			
Groundwater (Central Basin)	Adjudicated APA of 16,439 ac-ft for all GSWC systems in the Central Basin. GSWC also has lease agreements in place to supplement pumping above 16,439 ac-ft/yr.	N/A	GSWC does not project any groundwater supplies to be affected by changes in water quality. See Chapter 5 for detailed information.	N/A
Groundwater (West Coast Basin)	Adjudicated, 7,502 ac-ft for the Southwest System. GSWC also has the ability to increase water supply with lease agreements to supplement pumping above 7,502 ac-ft/yr.	N/A	GSWC does not project any groundwater supplies to be affected by changes in water quality. See Chapter 5 for detailed information.	N/A

Notes:

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

6.2 Normal Water Year Analysis

Table 6-5 summarizes the supply reliability assessment for a normal water year based on water supply and water demand projections for the Southwest System.

Table 6-5: Comparison of Projected Normal Year Supply and Demand					
	2015	2020	2025	2030	2035
Water Supply Total (ac-ft/yr)	38,101	38,929	39,613	40,300	40,885
Water Demand Total (ac-ft/yr)	38,101	38,929	39,613	40,300	40,885
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 6-6 demonstrates the reliability of water supplies to meet projected annual water demands for the Southwest System in a single-dry year. CBMWD and WBMWD have determined that they can meet their projected water demands in a single-dry year, so the projected combination of imported water, local groundwater and recycled water supplies are equal to the projected demands.

Table 6-6: Comparison of Projected Supply and Demand for Single-Dry Year					
	2015	2020	2025	2030	2035
Supply Total (ac-ft/yr)	38,101	38,929	39,613	40,300	40,885
Demand Total (ac-ft/yr)	38,101	38,929	39,613	40,300	40,885
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 6-7 presents the projected multiple-dry year water supply and demand assessment for the Southwest System. It is assumed that the multiple-dry year water supplies are the same as those for the normal years because Metropolitan (through CBMWD and WBMWD) intends to meet projected imported 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. CBMWD and WBMWD have determined that they can meet projected water demands for multiple-dry years, so the water supply is projected to equal the demand.

Table 6-7 demonstrates that the water supplies are sufficient to meet the projected water demand for each multiple-dry year period because:

- CBMWD and WBMWD has determined that they can meet projected water demands for the multiple-dry year periods (see Chapter 3);
- Groundwater from the Central and West Coast Basins is expected to be 100 percent reliable in multiple-dry years, and;
- Recycled water is expected to be available during all hydrologic conditions because it is not subject to hydrologic variations.

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

In summary, GSWC, Metropolitan, CBMWD and WBMWD have implemented and will continue to implement projects to ensure that imported water demands can be met under normal, single-dry, and multiple-dry years.

Table 6-7: 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	34,815	34,815	0	0%	0%
2014	36,458	36,458	0	0%	0%
2015	38,101	38,101	0	0%	0%
2016					
2017					
2018	38,598	38,598	0	0%	0%
2019	38,763	38,763	0	0%	0%
2020	38,929	38,929	0	0%	0%
2021					
2022					
2023	39,339	39,339	0	0%	0%
2024	39,476	39,476	0	0%	0%
2025	39,613	39,613	0	0%	0%
2026					
2027					
2028	40,025	40,025	0	0%	0%
2029	40,163	40,163	0	0%	0%
2030	40,300	40,300	0	0%	0%
2031					
2032					
2033	40,651	40,651	0	0%	0%
2034	40,768	40,768	0	0%	0%
2035	40,885	40,885	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 Southwest System and includes a summary of current and planned DMM implementation and an overview of the proposed program for compliance with SBX7-7, which requires 20 percent statewide reduction in urban water use by 2020. The DMM portions of the Act state the following:

Section 10631.

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

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

7.1 Conservation Program Background

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

To facilitate efficient BMP reporting for water systems located in GSWC's three regions in California, GSWC established a number of BMP "Reporting Units" based on geographic proximity. GSWC's Metro BMP Reporting Unit is defined as all of the company's water systems within their Region II. Therefore, this chapter includes conservation activities for the Artesia, Bell/Bell Gardens, Culver City, Florence/Graham, Hollydale, Norwalk, Southwest and Willowbrook Systems.

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

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

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

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

CUWCC BMP Organization and Names (2009 MOU)				UWMP DMMs	
Type	Category	BMP #	BMP name	DMM #	DMM name
Foundational	Operations Practices	1.1.1	Conservation Coordinator	L	Water conservation coordinator
		1.1.2	Water Waste Prevention	M	Water waste prohibition
		1.1.3	Wholesale Agency Assistance Programs	J	Wholesale agency programs
		1.2	Water Loss Control	C	System water audits, leak detection, and repair
		1.3	Metering with Commodity Rates for All New Connections and Retrofit of Existing Connections	D	Metering with commodity rates for all new connections and retrofit of existing connections
		1.4	Retail Conservation Pricing	K	Conservation pricing
	Education Programs	2.1	Public Information Programs	G	Public information programs
		2.2	School Education Programs	H	School education programs
Programmatic	Residential	3.1	Residential assistance program	A	Water survey programs for single-family residential and multi-family residential customers ⁽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 Metro Reporting Unit water systems. Signatories to the MOU are permitted by Water Code Section 10631(j) to include their biennial CUWCC BMP reports in an UWMP to meet the requirements of the DMMs sections of the UWMP Act if the agency is meeting all provisions of the MOU. The Metro Reporting Unit BMP coverage report for 2009 through 2010 is attached as Appendix C and supplements the summary of BMP implementation activities provided in this chapter.

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

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

7.3 Foundational DMMs

7.3.1 Utility Operations

7.3.1.1 Conservation Coordinator

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

7.3.1.2 Water Waste Prevention

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

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

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

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

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

7.3.1.3 Water Loss Control

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

For calendar year 2009, GSWC implemented the American Water Works Association (AWWA) M36 Standard Water Audit methodology. The approach consists of a component analysis of leaks for designation into “revenue” and “non-revenue” categories and an economic analysis of recoverable loss. Results of the analysis, which are included in Appendix E, show an infrastructure leakage index (ILI) of 0.56. The initial evaluation suggests that the Metro Reporting Unit systems are within the parameters of a high functioning system, as defined by the AWWA.

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

Table 7-2: Water Loss Control Evaluation Summary		
Report Year	Prescreen Completed	Prescreen Result
2006	Yes	92.0%
2007	Yes	99.2%
2008	Yes	91.5%
2009	Yes	94.8%

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 in Region II 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 (O&M) 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 Region II are billed volumetrically. In addition, effective December 2010, GSWC has implemented a third tier of a conservation pricing rate structure for residential customers, as approved by the CPUC for Region II. 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 Metropolitan 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 62.8 percent of Metropolitan Reporting Unit's total revenue which is on track to meet the 2012 MOU goal of 70 percent.

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 II 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

Region II customers are notified of various conservation programs by the Community Education Department. GSWC had a 2010 annual budget of \$35,000 for public outreach in Region II. 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	0	0	0	4	4
Bill Inserts / Newsletters / Brochures	3	1	1	4	4
Bill showing water usage in comparison to previous year's usage	Yes	Yes	Yes	Yes	Yes
Demonstration Garden Tours	0	0	0	6	12
Special Events, Media Events	3	3	4	8	8
Speaker's Bureau	0	0	0	2	2
Program to coordinate with other government agencies, industry, public interest groups and media	Yes	Yes	No	Yes	Yes

School Education Programs

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

Results from the program are tracked, and a comprehensive Program Summary Report is generated at the end of each school year. This report documents the estimated reduction in water usage that was achieved through the retrofits and provides data on the percentage of

students who participated in the program. Table 7-4 provides a summary of program participation results between 2006 and 2010.

Table 7-4: School Education Activities					
	2006	2007	2008	2009	2010
Presentations	155	120	95	275	275
Grade	4 th – 6 th	4 th – 6 th	5 th – 6 th	5 th – 6 th	5 th – 6 th
Number of students	5,938	7,445	8,300	8,900	8,900

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

Implementation Steps and Schedule

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

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

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

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

The effectiveness of implementing Public Education BMPs will be measured by tracking the number of public outreach events and education programs where customers receive information on conservation. A successful public information program should encourage customers to take advantage of conservation incentives being offered by GSWC 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 Region II's demand.

7.4 Programmatic DMMs

GSWC intends to continue to comply with the MOU using the BMP compliance approach for the Metro Reporting Unit. Implementation of the programmatic BMPs will continue to be a joint effort with Metropolitan. Metropolitan is responsible for administering most of the Residential, Landscape, and CII BMPs currently being offered to Region II customers. Additional detailed descriptions of wholesaler DMM implementation can also be found in Metropolitan's 2010 Regional Water Management Plan, as well as CBMWD and WBMWD's 2010 UWMPs where appropriate. GSWC will continue to support Metropolitan activities and will focus on improving outreach to its customers and promoting awareness of the programs available to them.

Once the pending rate case is approved by the CPUC, GSWC will develop a prioritized water use efficiency program and implementation schedule for all customer service areas in the company focusing on systems with the highest SBX7-7 water use reduction targets, and those where specific conservation activities can be implemented that are locally cost effective. Programs that are cost-effective to implement on a companywide basis will also be considered. At this time, all of the BMPs are cost effective for implementation in Region II, where the avoided cost of water is \$980 per acre-foot.

7.4.1 Residential DMMs

7.4.1.1 Residential Assistance Programs

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

Table 7-5: Residential Surveys and Retrofits in the Metro Reporting Unit					
	2006	2007	2008	2009	2010
Single-Family Accounts					
Surveys Offered	0	0	5,878	13,286	14,100
Surveys Completed	0	0	1,821	3,186	2,945
Multi-Family Accounts					
Surveys Offered	0	0	5,878	97	119
Surveys Completed	0	0	1,821	32	20
Devices					
Showerheads	700	700	8,800	10,165	11,072
Aerators	1,000	700	8,500	26,766	28,255

Implementation Steps and Schedule

Over the next 5 years, GSWC will continue distributing low flow showerheads and aerators to customers, and offering audits to high-use SF and MF customers until saturation requirements are satisfied for this BMP. It is estimated that 1,308 devices per year will need to be installed in SF and MF residences. Once saturation requirements are met, GSWC will continue to offer the programs as required by the MOU.

Methods Used to Evaluate Effectiveness and Water Savings

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

- **Residential Assistance Surveys:** According to the CUWCC, SF surveys are estimated to save 40 gpd and MF surveys are estimated to save 20 gpd. At 1,308 surveys per year, it is estimated that GSWC will save more than 2,400 ac-ft over the next 10 years.
- **Plumbing Retrofit kits:** Per the CUWCC, it is estimated that 7.7 gpd per unit is conserved from installation of low flow showerheads and 1.5 gpd for a faucet aerator. At 75 percent saturation, the potential total savings is approximately 404 ac-ft over the next 10 years.

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

7.4.1.2 Landscape Water Surveys

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

Implementation Steps and Schedule

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

Methods Used to Evaluate Effectiveness and Water Savings

See residential assistance programs description.

7.4.1.3 High-Efficiency Clothes Washers

GSWC customers are eligible to participate in the HECW rebate program provided by Metropolitan, which has been available since 2003. Metropolitan has supplemented its HECW rebate using state or federal grants whenever possible. The water efficiency of clothes washers is represented by the "water factor," which is a measure of the amount of water used to wash a standard load of laundry. Washers with a lower water factor save more water. Metropolitan has continued to transform the market by changing its program requirement to lower water factors.

The program eligibility requirement is currently set at water factor 4.0, which saves more than 10,000 gallons per year per washer over a conventional top loading washer. GSWC does not contribute funds to the HECW rebate program. The GSWC conservation webpage advertises the rebates and provides a link to the Metropolitan website for full program details. A summary of the HECW Rebates received by GSWC customers in Region II is provided in Table 7-6.

Table 7-6: HECW Rebates Received by GSWC Region II Customers						
	2006	2007	2008	2009	2010	TOTAL
Rebates	50	0	581	400	134	1,165

Implementation Steps and Schedule

To comply with the BMP, rebates need to be issued to 704 customers per year in Region II until saturation requirements are met. GSWC intends to continue to participate in the HECW rebate program administered by Metropolitan. To increase program participation, GSWC will increase marketing efforts to raise customer awareness that the program is being offered. GSWC will develop an updated conservation website, and prominently include HECW rebate incentives on future bill stuffers or other direct mail campaigns.

Methods Used to Evaluate Effectiveness and Water Savings

Metropolitan tracks customer participation in the HECW rebate program and estimates that 28 gallons per day are saved for each HECW installed. At the required implementation levels, it is estimated that GSWC will save a total of approximately 965 ac-ft from 704 HECWs installed per year over the next 10 years. There are no anticipated impacts on GSWC's ability to further reduce demands.

7.4.1.4 WaterSense Specification (WSS) Toilets

GSWC customers have been eligible to participate in the HET rebate program administered by Metropolitan since 2008. Metropolitan has provided incentives for toilet programs since 1988. 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 Region II advertises the rebates and provides a link to the Metropolitan website for full details. The number of rebates issued by Metropolitan to GSWC Region II customers is provided in Table 7-7.

Table 7-7: Toilet Rebates and Replacements Received by Southwest System Customers

Type	2006	2007	2008	2009	2010
Single-Family					
ULFT Rebates	461	0	418	0	0
HET Rebates	0	0	0	500	362
Multi-Family					
ULFT Rebates	101	0	417	0	0
HET Rebates	0	0	0	0	30

Implementation Steps and Schedule

To comply with the BMP, rebates need to be issued to 634 SF and 302 MF customers per year in Region II. GSWC intends to continue to participate in the HET rebate program administered by Metropolitan as described above. GSWC will also evaluate augmenting existing public outreach efforts through direct mail and enhanced website features to inform customers about current incentive opportunities and increase program participation.

Methods Used to Evaluate Effectiveness and Water Savings

Metropolitan tracks customer participation in the HET rebate program to measure effectiveness. According to the CUWCC research and evaluation committee, it is estimated that 21.1 and 26.6 gallons per day are saved for each HECW installed in SF and MF units, respectively. It is estimated that GSWC will save approximately 1,172 ac-ft from HET installations completed over the next 10 years at required implementation levels of 634 SF and 302 MF installations. There are no anticipated impacts on GSWC's ability to further reduce demands.

7.4.1.5 WaterSense Specification for Residential Development

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

Implementation Exemption

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

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

7.4.1.6 Commercial, Industrial, and Institutional DMMs

The CII programs are implemented by Metropolitan on behalf of GSWC. Table 7-8 provides a summary of CII program participation from GSWC's Region II customers from 2006 to 2010. GSWC customers are eligible to participate in Metropolitan's CII program, 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: HETs, zero water and ultra low water urinals, connectionless food steamers, air-cooled ice machines (Tier III), cooling tower and pH conductivity controllers, water brooms, dry vacuum pumps (see 7.3.2.7 below). Additionally, the Save-A-Buck program offers rebates for outdoor landscaping equipment such as: weather-based irrigation controllers (WBIC), central computer irrigation controllers, rotating spray nozzles retrofits, and high efficiency large rotary nozzle retrofits.

Table 7-8: Commercial, Industrial, and Institutional Programs					
Program	2006	2007	2008	2009	2010
CII HET Rebates	310	0	442	500	500
CII ULFT Rebates	0	0	74	0	0
Dual Flush Toilets	0	0	29	0	0
CII Urinal Rebates	47	0	17	330	240
CII HECW Rebates	0	0	71	25	0
Cooling Tower Controllers	0	0	1	0	0

Implementation Steps and Schedule

GSWC's goal for the next 3 to 5 years is to focus on advertising and outreach programs, including CII rebates, as described elsewhere in this chapter. If, after additional advertising efforts it is determined that Metropolitan's program is not meeting coverage requirements, GSWC will evaluate augmenting Metropolitan's program. To meet BMP requirements for the required 10 percent water savings (about 380 ac-ft/yr) by 2020, GSWC will need to support or augment Metropolitan's program to encourage customers to participate in rebate incentive programs. GSWC will also evaluate implementing additional CII water savings programs, such as industrial process water use reductions.

Methods Used to Evaluate Effectiveness and Water Savings

Effectiveness of the CII program will be evaluated by tracking multiple parameters, including program participation, metered CII water use, high water users, and measuring water savings from specific CII activities where practicable to show a water savings of at least 151 ac-ft per year. There are no anticipated impacts on GSWC's ability to further reduce demands.

7.4.1.7 Large Landscape

GSWC's large landscape program consists of identifying and contacting high-use customers, providing information and offering water use surveys, voluntary landscape water use budgets, and landscape training. While the program is available to all large landscape customers free of charge. WBMWD and GSWC are currently partnering in the "Ocean-Friendly" program where GSWC's customers who are in WBMWD's service territory can apply for free landscape audits

and the installation of free WBICs. An increase in conservation pricing rates in 2011 is expected to prompt increased participation, and funding has been designated for improved program marketing.

Table 7-9: 2010 CII and MF Irrigation Rebates		
Rebate Programs	Number of Incentives	Dollar Value of Incentives
Smart Irrigation Controller	100	\$14,675
Drip Irrigation Retrofits	11	\$275
MP Rotator Retrofits	1,200	\$3,600
Total	1,311	\$18,550

Implementation Steps and Schedule

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

In order to meet BMP coverage requirements, GSWC/Metropolitan will need to develop ETo-based landscape water budgets for 72 accounts with dedicated irrigation meters per year. GSWC will also continue to offer landscape water use surveys to customers without dedicated irrigation meters. Devices such as WBICs and precision nozzles will also be distributed to mix-metered high water use customers who have been determined not to be water efficient.

Methods Used to Evaluate Effectiveness and Water Savings

GSWC will track increased customer participation in the CII large landscape water budgeting and rebate programs. At the implementation rate described above, it is estimated that as much as 2,764 AF could be conserved by 2020. There are no anticipated impacts on GSWC's ability to further reduce demands.

7.5 SBX7-7 Compliance Strategy

The SBX7-7 water use baseline for the Southwest System is 125 gpcd, and the 2020 compliance goal is 119 gpcd, as detailed in Chapter 3. Several factors have contributed to a rapid reduction in gpcd over the past few years including the economic recession, recent mild climate conditions, implementation of a residential tiered conservation pricing structure and other conservation measures. Over the past 3 years, there has been a recent 18 percent decline in gpcd in the Southwest System from 119 gpcd in 2008 to an estimated 97 gpcd in 2010. Therefore, the Southwest System is on track to meet its SBX7-7 goals, and will remain focused on maintaining these savings over the next 10 years.

However, if the gpcd begins to increase to previous levels, GSWC's continued commitment to complying with the CUWCC MOU and implementation of all BMPs should provide sufficient

water savings to meet the goal of 119 gpcd. GSWC will assess implementation of a suite of programs over the next 2 to 3 years to meet conservation targets companywide. Implementation levels and specific program offerings will vary by system depending on system goals, including existing implementation levels, demographics, and hydrologic characteristics.

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

Conservation Pricing

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

Financial Incentives

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

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

Building Code/New Standards

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

Information/Tracking

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

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

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

7.5.1 Consideration of Economic Impacts

Since funding for all conservation activities is subject to approval by the CPUC before programs can be implemented, the economic impacts of complying with SBX7-7 have not yet been fully determined. However, an economic analysis to help develop programs that avoid placing disproportionate burdens on any single sector will be prepared during development of the SBX7-7 water use efficiency program. The annual costs associated with implementing all traditional CUWCC programmatic BMPs cannot be determined because it represents the combined efforts of Metropolitan 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 Southwest 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 States 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 imported water supplies will meet projected imported water demands under all anticipated hydrologic conditions. It should be noted that the active connection capacity to deliver imported water from WBMWD and CBMWD is significantly higher than the projected imported water supply required to meet projected demands.

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

- adjudicated groundwater rights in the West and Central basins,
- anticipated benefits of conjunctive use storage programs in accordance with the terms of amendments to the existing court Judgments to be developed,
- the projected reliability of Metropolitan water supplies imported through WBMWD and CBMWD, which are expected to be 100 percent reliable, and
- the availability of recycled water

Table 8-2: Three-Year Estimated Minimum Water Supply in ac-ft/yr

Source	2011	2012	2013	2010 Average Year
Imported water from WBMWD/CBMWD ⁽¹⁾	23,133	24,739	26,346	12,594
Groundwater	8,141	8,141	8,141	17,073
Recycled water	255	291	328	219
Total	31,529	33,171	34,815	29,886

Notes:

1. Projected CBMWD and WBMWD imported water values are calculated assuming groundwater is provided within the APA only. Leased groundwater rights as obtained in the future will result in groundwater constituting a greater percentage of total water supply to the system.
2. Table format based on DWR Guidebook Table 31.

8.3 Catastrophic Supply Interruption Plan

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

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

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

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

Table 8-3: Summary of Actions for Catastrophic Events

Possible Catastrophe	Summary of Actions
Regional power outage	<ul style="list-style-type: none">• 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	<ul style="list-style-type: none">• 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	<ul style="list-style-type: none">• 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.

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Chapter 9: References

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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.

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

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

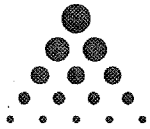
"Memorandum of Understanding Regarding Urban Water Conservation in California" is deemed to be reasonable for the purposes of this section.

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

19 July 2010

Sheri Repp-Loadsman
Planning Manager
City of Carson
P.O. Box 6234
701 E. Carson St.
Carson, CA 90745

Subject: Golden State Water Company - Southwest System
2010 Urban Water Management Plan Preparation Notification and Information Request
K/J 1070001*00

Dear Sheri Repp-Loadsman:

Golden State Water Company (GSWC) is currently in the process of preparing its 2010 Urban Water Management Plan (UWMP) for the Southwest system as required by State of California Law through the Urban Water Management Planning Act. The UWMP Act requires that Urban Water Retailers document water supply, reliability and other issues through the year 2035. This letter is provided as your official notice of UWMP preparation and request for information since your agency has governmental jurisdiction, possibly including land use planning over the Southwest system area. The UWMP process is intended to be a collaborative effort between all project stakeholders to the extent practicable.

Please review the enclosed figure showing the Southwest system service area and advise whether there are any issues that should be considered by GSWC in preparation of this UWMP. Items for consideration may include land developments anticipated between 2010 and 2035 within or immediately adjacent to the water system. Please also provide any pertinent supporting documentation. We will be happy to provide you with an electronic copy of the 2005 UWMP at your request.

We appreciate timely attention to the information requested above and ask you to provide a response no later than **3 August 2010**. Kennedy/Jenks Consultants is preparing the UWMP under contract with GSWC and will be contacting you directly within the next few weeks to follow up on this request. In the meantime, should you have any questions or concerns please feel free to contact Sean Maguire with Kennedy/Jenks Consultants at seanmaguire@kennedyjenks.com or (916) 858-2700.

Very truly yours,

GOLDEN STATE WATER COMPANY

Dan W. Talaga, P.E.
Sr. Civil Engineer

Enclosure



19 July 2010

Cliff Graves
Economic Development General Manager
City of Carson
P.O. Box 6234
701 E. Carson St.
Carson, CA 90745

Subject: Golden State Water Company - Southwest System
2010 Urban Water Management Plan Preparation Notification and Information Request
K/J 1070001*00

Dear Cliff Graves:

Golden State Water Company (GSWC) is currently in the process of preparing its 2010 Urban Water Management Plan (UWMP) for the Southwest system as required by State of California Law through the Urban Water Management Planning Act. The UWMP Act requires that Urban Water Retailers document water supply, reliability and other issues through the year 2035. This letter is provided as your official notice of UWMP preparation and request for information since your agency has governmental jurisdiction, possibly including land use planning over the Southwest system area. The UWMP process is intended to be a collaborative effort between all project stakeholders to the extent practicable.

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Very truly yours,

GOLDEN STATE WATER COMPANY

A handwritten signature in black ink that reads "Dan W. Talaga". The signature is written in a cursive, flowing style.

Dan W. Talaga, P.E.
Sr. Civil Engineer

Enclosure



19 July 2010

Derek Hull
Director of the Planning Department
City of Compton
205 South Willowbrook Avenue
Compton, CA 90220

Subject: Golden State Water Company - Southwest System
2010 Urban Water Management Plan Preparation Notification and Information Request
K/J 1070001*00

Dear Derek Hull:

Golden State Water Company (GSWC) is currently in the process of preparing its 2010 Urban Water Management Plan (UWMP) for the Southwest system as required by State of California Law through the Urban Water Management Planning Act. The UWMP Act requires that Urban Water Retailers document water supply, reliability and other issues through the year 2035. This letter is provided as your official notice of UWMP preparation and request for information since your agency has governmental jurisdiction, possibly including land use planning over the Southwest system area. The UWMP process is intended to be a collaborative effort between all project stakeholders to the extent practicable.

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Very truly yours,

GOLDEN STATE WATER COMPANY

Dan W. Talaga, P.E.
Sr. Civil Engineer

Enclosure



19 July 2010

Kimberly Christensen
Planning Manager
City of El Segundo
350 Main Street
El Segundo, CA 90245

Subject: Golden State Water Company - Southwest System
2010 Urban Water Management Plan Preparation Notification and Information Request
K/J 1070001*00

Dear Kimberly Christensen:

Golden State Water Company (GSWC) is currently in the process of preparing its 2010 Urban Water Management Plan (UWMP) for the Southwest system as required by State of California Law through the Urban Water Management Planning Act. The UWMP Act requires that Urban Water Retailers document water supply, reliability and other issues through the year 2035. This letter is provided as your official notice of UWMP preparation and request for information since your agency has governmental jurisdiction, possibly including land use planning over the Southwest system area. The UWMP process is intended to be a collaborative effort between all project stakeholders to the extent practicable.

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Very truly yours,

GOLDEN STATE WATER COMPANY

Dan W. Talaga, P.E.
Sr. Civil Engineer

Enclosure



19 July 2010

Greg Carpenter
Planning Manager
City of El Segundo
350 Main Street
El Segundo, CA 90245

Subject: Golden State Water Company - Southwest System
2010 Urban Water Management Plan Preparation Notification and Information Request
K/J 1070001*00

Dear Greg Carpenter:

Golden State Water Company (GSWC) is currently in the process of preparing its 2010 Urban Water Management Plan (UWMP) for the Southwest system as required by State of California Law through the Urban Water Management Planning Act. The UWMP Act requires that Urban Water Retailers document water supply, reliability and other issues through the year 2035. This letter is provided as your official notice of UWMP preparation and request for information since your agency has governmental jurisdiction, possibly including land use planning over the Southwest system area. The UWMP process is intended to be a collaborative effort between all project stakeholders to the extent practicable.

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Very truly yours,

GOLDEN STATE WATER COMPANY

Dan W. Talaga, P.E.
Sr. Civil Engineer

Enclosure



19 July 2010

Mitchell Landsdell
City Manager
City of Gardena
1700 West 162nd Street, Room 1
Gardena, CA 90247

Subject: Golden State Water Company - Southwest System
2010 Urban Water Management Plan Preparation Notification and Information Request
K/J 1070001*00

Dear Mitchell Landsdell:

Golden State Water Company (GSWC) is currently in the process of preparing its 2010 Urban Water Management Plan (UWMP) for the Southwest system as required by State of California Law through the Urban Water Management Planning Act. The UWMP Act requires that Urban Water Retailers document water supply, reliability and other issues through the year 2035. This letter is provided as your official notice of UWMP preparation and request for information since your agency has governmental jurisdiction, possibly including land use planning over the Southwest system area. The UWMP process is intended to be a collaborative effort between all project stakeholders to the extent practicable.

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Very truly yours,

GOLDEN STATE WATER COMPANY

Dan W. Talaga, P.E.
Sr. Civil Engineer

Enclosure



19 July 2010

Gregg McClain
Planning Department Director
City of Hawthorne
4455 West 126th Street
Hawthorne, CA 90250

Subject: Golden State Water Company - Southwest System
2010 Urban Water Management Plan Preparation Notification and Information Request
K/J 1070001*00

Dear Gregg McClain:

Golden State Water Company (GSWC) is currently in the process of preparing its 2010 Urban Water Management Plan (UWMP) for the Southwest system as required by State of California Law through the Urban Water Management Planning Act. The UWMP Act requires that Urban Water Retailers document water supply, reliability and other issues through the year 2035. This letter is provided as your official notice of UWMP preparation and request for information since your agency has governmental jurisdiction, possibly including land use planning over the Southwest system area. The UWMP process is intended to be a collaborative effort between all project stakeholders to the extent practicable.

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Very truly yours,

GOLDEN STATE WATER COMPANY

Dan W. Talaga, P.E.
Sr. Civil Engineer

Enclosure



19 July 2010

Wanda Williams
Planning Manager
City of Inglewood
One Manchester Boulevard
Inglewood, CA 90301

Subject: Golden State Water Company - Southwest System
2010 Urban Water Management Plan Preparation Notification and Information Request
K/J 1070001*00

Dear Wanda Williams:

Golden State Water Company (GSWC) is currently in the process of preparing its 2010 Urban Water Management Plan (UWMP) for the Southwest system as required by State of California Law through the Urban Water Management Planning Act. The UWMP Act requires that Urban Water Retailers document water supply, reliability and other issues through the year 2035. This letter is provided as your official notice of UWMP preparation and request for information since your agency has governmental jurisdiction, possibly including land use planning over the Southwest system area. The UWMP process is intended to be a collaborative effort between all project stakeholders to the extent practicable.

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Very truly yours,

GOLDEN STATE WATER COMPANY

Dan W. Talaga, P.E.
Sr. Civil Engineer

Enclosure



19 July 2010

Otis Ginoza
Deputy City Manager
City of Lawndale
14717 Burin Ave
Lawndale, CA 90260

Subject: Golden State Water Company - Southwest System
2010 Urban Water Management Plan Preparation Notification and Information Request
K/J 1070001*00

Dear Otis Ginoza:

Golden State Water Company (GSWC) is currently in the process of preparing its 2010 Urban Water Management Plan (UWMP) for the Southwest system as required by State of California Law through the Urban Water Management Planning Act. The UWMP Act requires that Urban Water Retailers document water supply, reliability and other issues through the year 2035. This letter is provided as your official notice of UWMP preparation and request for information since your agency has governmental jurisdiction, possibly including land use planning over the Southwest system area. The UWMP process is intended to be a collaborative effort between all project stakeholders to the extent practicable.

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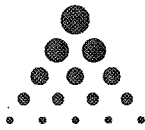
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Very truly yours,

GOLDEN STATE WATER COMPANY

Dan W. Talaga, P.E.
Sr. Civil Engineer

Enclosure



**Golden State
Water Company**

A Subsidiary of American States Water Company

19 July 2010

Con Howe
Director of Planning
City of Los Angeles
200 N. Spring Street, Room 303

Los Angeles, CA 90012

Subject: Golden State Water Company - Southwest System
2010 Urban Water Management Plan Preparation Notification and Information Request
K/J 1070001*00

Dear Con Howe:

Golden State Water Company (GSWC) is currently in the process of preparing its 2010 Urban Water Management Plan (UWMP) for the Southwest system as required by State of California Law through the Urban Water Management Planning Act. The UWMP Act requires that Urban Water Retailers document water supply, reliability and other issues through the year 2035. This letter is provided as your official notice of UWMP preparation and request for information since your agency has governmental jurisdiction, possibly including land use planning over the Southwest system area. The UWMP process is intended to be a collaborative effort between all project stakeholders to the extent practicable.

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Very truly yours,

GOLDEN STATE WATER COMPANY

Dan W. Talaga, P.E.
Sr. Civil Engineer

Enclosure



19 July 2010

Gail Goldberg
General Manager City Planning
City of Los Angeles
200 N. Spring Street, Room 303

Los Angeles, CA 90012

Subject: Golden State Water Company - Southwest System
2010 Urban Water Management Plan Preparation Notification and Information Request
K/J 1070001*00

Dear Gail Goldberg:

Golden State Water Company (GSWC) is currently in the process of preparing its 2010 Urban Water Management Plan (UWMP) for the Southwest system as required by State of California Law through the Urban Water Management Planning Act. The UWMP Act requires that Urban Water Retailers document water supply, reliability and other issues through the year 2035. This letter is provided as your official notice of UWMP preparation and request for information since your agency has governmental jurisdiction, possibly including land use planning over the Southwest system area. The UWMP process is intended to be a collaborative effort between all project stakeholders to the extent practicable.

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Very truly yours,

GOLDEN STATE WATER COMPANY

Dan W. Talaga, P.E.
Sr. Civil Engineer

Enclosure



19 July 2010

Gail Farber
Director of Public Works
County of Los Angeles
P.O. Box 1460
Alhambra, CA 91802-1460

Subject: Golden State Water Company - Southwest System
2010 Urban Water Management Plan Preparation Notification and Information Request
K/J 1070001*00

Dear Gail Farber:

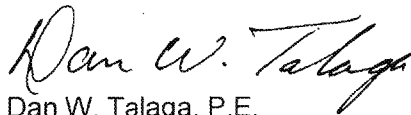
Golden State Water Company (GSWC) is currently in the process of preparing its 2010 Urban Water Management Plan (UWMP) for the Southwest system as required by State of California Law through the Urban Water Management Planning Act. The UWMP Act requires that Urban Water Retailers document water supply, reliability and other issues through the year 2035. This letter is provided as your official notice of UWMP preparation and request for information since your agency has governmental jurisdiction, possibly including land use planning over the Southwest system area. The UWMP process is intended to be a collaborative effort between all project stakeholders to the extent practicable.

Please review the enclosed figure showing the Southwest system service area and advise whether there are any issues that should be considered by GSWC in preparation of this UWMP. Items for consideration may include land developments anticipated between 2010 and 2035 within or immediately adjacent to the water system. Please also provide any pertinent supporting documentation. We will be happy to provide you with an electronic copy of the 2005 UWMP at your request.

We appreciate timely attention to the information requested above and ask you to provide a response no later than **3 August 2010**. Kennedy/Jenks Consultants is preparing the UWMP under contract with GSWC and will be contacting you directly within the next few weeks to follow up on this request. In the meantime, should you have any questions or concerns please feel free to contact Sean Maguire with Kennedy/Jenks Consultants at seanmaguire@kennedyjenks.com or (916) 858-2700.

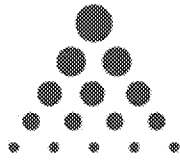
Very truly yours,

GOLDEN STATE WATER COMPANY



Dan W. Talaga, P.E.
Sr. Civil Engineer

Enclosure



Golden State Water Company

A Subsidiary of American States Water Company

April 28, 2011

City of Carson
Sheri Repp-Loadsman
Planning Manager
P.O. Box 6234
701 E. Carson St.
Carson, CA 90745

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

Dear Sheri:

Golden State Water Company (GSWC) is providing you this reminder of our July 19, 2010 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: Southwest. We anticipate the UWMP will be available for public review one week 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:**

Southwest Customer Service Office
1600 Redondo Beach Blvd.
Gardena, CA 90247

A public hearing to solicit comments on the draft UWMP will be held at 6:00 p.m., on Wednesday, June 8, 2011 and take place at:

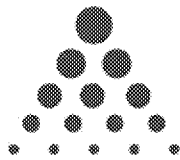
Nakaoka Community Center
Room E
1670 West 162nd Street
Gardena, CA

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

April 28, 2011

City of Carson
Cliff Graves
Economic Development General Manager
P.O. Box 6234
701 E. Carson St.
Carson, CA 90745

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

Dear Cliff:

Golden State Water Company (GSWC) is providing you this reminder of our July 19, 2010 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: Southwest. We anticipate the UWMP will be available for public review one week 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:**

Southwest Customer Service Office
1600 Redondo Beach Blvd.
Gardena, CA 90247

A public hearing to solicit comments on the draft UWMP will be held at 6:00 p.m., on Wednesday, June 8, 2011 and take place at:

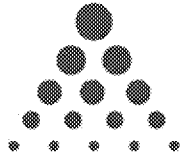
Nakaoka Community Center
Room E
1670 West 162nd Street
Gardena, CA

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

April 28, 2011

City of Compton
Derek Hull
Director of Planning Manager
205 South Willowbrook Avenue
Compton, CA 90220

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

Dear Derek:

Golden State Water Company (GSWC) is providing you this reminder of our July 19, 2010 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: Southwest. We anticipate the UWMP will be available for public review one week 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:**

Southwest Customer Service Office
1600 Redondo Beach Blvd.
Gardena, CA 90247

A public hearing to solicit comments on the draft UWMP will be held at 6:00 p.m., on Wednesday, June 8, 2011 and take place at:

Nakaoka Community Center
Room E
1670 West 162nd Street
Gardena, CA

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

Very truly yours,

GOLDEN STATE WATER COMPANY

Ernest A Gisler
Planning Manager



April 28, 2011

City of El Segundo
Kimberly Christensen
Planning Manager
350 Main Street
El Segundo, CA 90220

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

Dear Kimberly:

Golden State Water Company (GSWC) is providing you this reminder of our July 19, 2010 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: Southwest. We anticipate the UWMP will be available for public review one week 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:**

Southwest Customer Service Office
1600 Redondo Beach Blvd.
Gardena, CA 90247

A public hearing to solicit comments on the draft UWMP will be held at 6:00 p.m., on Wednesday, June 8, 2011 and take place at:

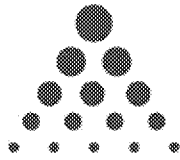
Nakaoka Community Center
Room E
1670 West 162nd Street
Gardena, CA

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

April 28, 2011

City of El Segundo
Greg Carpenter
Planning Manager
350 Main Street
El Segundo, CA 90220

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

Dear Greg:

Golden State Water Company (GSWC) is providing you this reminder of our July 19, 2010 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: Southwest. We anticipate the UWMP will be available for public review one week 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:**

Southwest Customer Service Office
1600 Redondo Beach Blvd.
Gardena, CA 90247

A public hearing to solicit comments on the draft UWMP will be held at 6:00 p.m., on Wednesday, June 8, 2011 and take place at:

Nakaoka Community Center
Room E
1670 West 162nd Street
Gardena, CA

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

Very truly yours,

GOLDEN STATE WATER COMPANY

Ernest A Gisler
Planning Manager



April 28, 2011

City of Gardena
Mitchell Landsdell
City Manager
1700 West 162nd Street, Room 1
Gardena, CA 90247

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

Dear Mitchell:

Golden State Water Company (GSWC) is providing you this reminder of our July 19, 2010 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: Southwest. We anticipate the UWMP will be available for public review one week 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:**

Southwest Customer Service Office
1600 Redondo Beach Blvd.
Gardena, CA 90247

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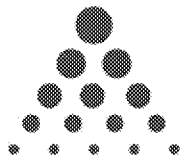
Nakaoka Community Center
Room E
1670 West 162nd Street
Gardena, CA

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

April 28, 2011

City of Hawthorne
Gregg McClain
Planning Department Director
4455 West 126th Street
Hawthorne, CA 90250

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

Dear Gregg:

Golden State Water Company (GSWC) is providing you this reminder of our July 19, 2010 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: Southwest. We anticipate the UWMP will be available for public review one week 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:**

Southwest Customer Service Office
1600 Redondo Beach Blvd.
Gardena, CA 90247

A public hearing to solicit comments on the draft UWMP will be held at 6:00 p.m., on Wednesday, June 8, 2011 and take place at:

Nakaoka Community Center
Room E
1670 West 162nd Street
Gardena, CA

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

Very truly yours,

GOLDEN STATE WATER COMPANY

Ernest A Gisler
Planning Manager



April 28, 2011

City of Inglewood
Wanda Williams
Planning Manager
One Manchester Boulevard
Inglewood, CA 90301

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

Dear Wanda:

Golden State Water Company (GSWC) is providing you this reminder of our July 19, 2010 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: Southwest. We anticipate the UWMP will be available for public review one week 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:**

Southwest Customer Service Office
1600 Redondo Beach Blvd.
Gardena, CA 90247

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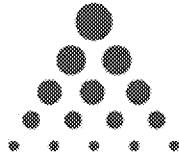
Nakaoka Community Center
Room E
1670 West 162nd Street
Gardena, CA

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

April 28, 2011

City of Lawndale
Otis Ginoza
Deputy City Manager
14717 Burin Ave
Lawndale, CA 90260

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

Dear Otis:

Golden State Water Company (GSWC) is providing you this reminder of our July 19, 2010 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: Southwest. We anticipate the UWMP will be available for public review one week 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:**

Southwest Customer Service Office
1600 Redondo Beach Blvd.
Gardena, CA 90247

A public hearing to solicit comments on the draft UWMP will be held at 6:00 p.m., on Wednesday, June 8, 2011 and take place at:

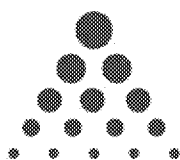
Nakaoka Community Center
Room E
1670 West 162nd Street
Gardena, CA

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

April 28, 2011

City of Los Angeles
Con Howe
Director of Planning
200 N. Spring Street, Room 303
Los Angeles, CA 90012

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

Dear Con:

Golden State Water Company (GSWC) is providing you this reminder of our July 19, 2010 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: Southwest. We anticipate the UWMP will be available for public review one week 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:**

Southwest Customer Service Office
1600 Redondo Beach Blvd.
Gardena, CA 90247

A public hearing to solicit comments on the draft UWMP will be held at 6:00 p.m., on Wednesday, June 8, 2011 and take place at:

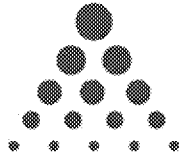
Nakaoka Community Center
Room E
1670 West 162nd Street
Gardena, CA

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

April 28, 2011

City of Los Angeles
Gail Goldberg
General Manager City Planning
200 N. Spring Street, Room 303
Los Angeles, CA 90012

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

Dear Gail:

Golden State Water Company (GSWC) is providing you this reminder of our July 19, 2010 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: Southwest. We anticipate the UWMP will be available for public review one week 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:**

Southwest Customer Service Office
1600 Redondo Beach Blvd.
Gardena, CA 90247

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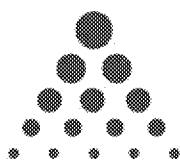
Nakaoka Community Center
Room E
1670 West 162nd Street
Gardena, CA

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

April 28, 2011

County of Los Angeles
Gail Farber
Director of Public Works
P.O. Box 1460
Alhambra, CA 91802-1460

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

Dear Gail:

Golden State Water Company (GSWC) is providing you this reminder of our July 19, 2010 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: Southwest. We anticipate the UWMP will be available for public review one week 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:**

Southwest Customer Service Office
1600 Redondo Beach Blvd.
Gardena, CA 90247

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Nakaoka Community Center
Room E
1670 West 162nd Street
Gardena, CA

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

Very truly yours,

GOLDEN STATE WATER COMPANY

Ernest A Gisler
Planning Manager

Proof of Publication

Los Angeles Times

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 I am not a party to or interested in the notice published. I am the chief legal advertising clerk of the publisher of the LOS ANGELES TIMES a newspaper of general circulation, printed and published daily in the City of Los Angeles, County of Los Angeles. The LOS ANGELES TIMES has been adjudged a newspaper of general circulation by the Superior Court of the County of Los Angeles, State of California, under the date of May 21, 1952, Case No. 598,599. The notice, of which the annexed is a 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:

April 5

all in the year 2011

I certify (or declare) under penalty of perjury that the foregoing is true and correct

Dated at Los Angeles, California, this

5 day of April 2011

Aliciana Quares

Signature

2074805


California Newspaper Service Bureau

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

Notice of Public Hearing

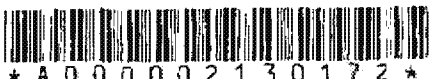
In conformance with the California Urban Water Management Planning Act, Golden State Water Company is hosting a public hearing on June 8, from 6 to 7 p.m. at the Nakagawa Community Center, Room E, 1670 West 162nd Street, Gardena, to solicit comments on the Urban Water Management Plan (UWMP) for the Southwest Water System. The system serves all of Gardena and Lawndale, and portions of Carson, Compton, El Segundo, Hawthorne, Inglewood, Redondo Beach, and unincorporated Athens, Del Aire, El Camino Village, Lennox and Gardena Heights.

The UWMP is 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:

Southwest Customer Service Office
1600 Redondo Beach Boulevard,
Suite 101
Gardena, CA 90247

For more information, visit www.gswater.com.

CNB#2074805



* A 0 0 0 0 2 1 3 0 1 7 2 *

**LONG BEACH
PRESS-TELEGRAM**

**300 Oceangate
Long Beach, CA 90844**

**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 the Long Beach Press-Telegram, a newspaper of general circulation printed and published daily in the City of Long Beach, County of Los Angeles, and which newspaper has been adjudged a newspaper of general circulation by the Superior Court of the County of Los Angeles, State of California, on the date of March 21, 1934, Case Number 370512. 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,

April 5, 2011


The Long Beach Press-Telegram, a newspaper of general circulation, is delivered to and available in, but not limited to the following cities: Long Beach, Lakewood, Bellflower, Cerritos, Downey, Norwalk, Artesia, Paramount, Wilmington, Compton, South Gate, Los Alamitos, Seal Beach, Cypress, La Palma, Lynwood, San Pedro, Hawaiian Gardens, Huntington Park, La Mirada, Santa Fe Springs, Carson. I declare under penalty of perjury that the foregoing is true and correct.

Executed at Long Beach, LA Co, California
this 5 day of April 2011

[Signature]
signature

Proof of Publication of

**Paste Clipping of Notice
SECURELY in this space.**



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

Notice of Public Hearing

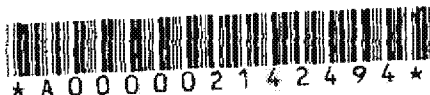
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The UWMP is available for public review prior to the public hearing and can be reviewed during normal business hours. Please call 1-800-999-4033 to make an appointment to view the plan at:

Southwest Customer Service Office
1600 Redondo Beach Boulevard,
Suite 101
Gardena, CA 90247

For more information, visit www.gswater.com

CNS#2074554





About Golden State
Water Company

Customer Service

Conservation Information
& Rebates

Rates, Schedules & Tariffs

Water Quality

[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 » Southwest](#)

Southwest Customer Service Area

Areas Served

This Customer Service Area serves approximately 51,300 customers in Southwest Los Angeles County, including all of Gardena and Lawndale, and portions of Carson, Compton, El Segundo, Hawthorne, Inglewood, Redondo Beach, and unincorporated Athens, Del Aire, El Camino Village, Lennox and Gardena Heights

Office Location

Southwest CSA
1600 W. Redondo Beach Blvd., #101
Gardena, CA 90247

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

Urban Water Management Plan Public Meeting Notice

Golden State Water Company (GSWC) is in the process of updating its Southwest Customer Service Area Urban Water Management Plan and is seeking public input. To review the plan, please [click here](#).

See [public notice](#) for more information.

Monthly Billing Beginning in June 2011 for Southwest Customer Service Area

Starting June 1, Golden State Water Company customers in the Southwest Customer Service Area will begin receiving monthly bills instead of bi-monthly bills. See more information.

GSWC Torrance Office is Closed

Beginning Monday, January 31, the Golden State Water Company Customer Service Office in Torrance is closed.

Customers may still pay their bills or speak to a representative at the Gardena Customer Service Office located at: 1600 Redondo West Beach Boulevard, Suite 101.

Check this website for a list of other offices, or call our 24 hour Customer Service Center at 1-800-999-4033.

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 Southwest Customer Service Area for 2010, 2011 and 2012

WATER CONSERVATION TIPS

Don't run the hose while washing your car. Use a bucket of water and a quick hose rinse at the end and save as much as 150 gallons each time.




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 II, which includes the Southwest 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 Southwest Customer Service Area to Encourage Water Use Efficiency

GSWC residential customers in the utility's Southwest 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 Southwest CSA, residential customers will pay the lowest rate for each Ccf they use in tier one, up to 11 Ccf. For every unit of water used in tier two, which is 12-15 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 16 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 \(Spanish\)](#)

Golden State Water Company's Water Shortage Plan for Southwest Customers

Golden State Water Company developed a water shortage plan ([Schedule 14.1](#)) for its Southwest Los Angeles County region 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 Southwest Los Angeles County 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 Los Angeles County customers. Funding is limited.

FREE Smart Irrigation Controller

Available for a limited time, [click here](#) for more information.

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

 Southwest

[Home Page](#) | [About Golden State Water Company](#) | [Customer Service](#) | [Find Your Local Office](#) | [Understanding Your Bill](#)
[Conservation Information and Rebate Programs](#) | [Rates, Schedules and Tariffs](#) | [Water Quality](#) | [Contact Us](#)

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**
Retail

District Name: **Metro**

CUWCC Unit #: **5041**

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	139
GPCD Target for 2018	142

Year	Report	Target	Highest Acceptable Bound			
			% Base	GPCD	% Base	GPCD
2010	1		96.4%	167	100%	173
2012	2		92.8%	161	96%	167
2014	3		89.2%	155	93%	161
2016	4		85.6%	148	89%	155
2018	5		82.0%	142	82%	142

Not on Track if 2010 GPCD is \geq than target

GPCD in 2010 **139**

Highest

Acceptable GPCD **173**

for 2010

On Track

Agency: Golden State Water Company
Retail

District Name: Metro

CUWCC Unit #: 5041



CUWCC BMP RETAIL COVERAGE REPORT 2009-2010

Foundation Best Management Practices for Urban Water Efficiency

Foundational BMPs

BMP 1.1 Operational Practices

		2009	2010	Conservation Coordinator provided with necessary resources to implement BMPs?
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	AlbertFrias@gswwater.com	On Track
2. Water waste prevention documentation				
	Descriptive File	http://www.aswater.com/Organization/Rates_and_Regulations/Rates_and_Tariffs/Rule_20.pdf	Rule 20 = Water Conservation. Rule 11B = Discontinuance of Service based upon Water Wastage. Rule 14 = can be implemented when mandatory conservation measures are necessary to maintain sufficient water.	On Track if any one of the 6 ordinance actions done, plus documentation or links provided
	Descriptive File 2010	Retail		
	URL	Retail		
	URL 2010		http://www.aswater.com/Organization/Rates_and_Regulations/Rates_and_Tariffs/Rule_20.pdf	
	Describe Ordinance Terms	Retail		
	Describe Ordinance Terms 2010	On Track	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.	On Track



CUWCC BMP RETAIL COVERAGE REPORT 2009-2010

Foundation Best Management Practices for Urban Water Efficiency

BMP 1.2 Water Loss Control

Compile Standard Water Audit using AWWA Software?	See Note below	2009 Yes	On Track
AWWA files for each area provided to CUWCC?		Yes	On Track
AWWA Water Audit Validity Score?		See files	
Completed Training in AWWA Audit Method?		0	
Completed Training in Component Analysis Process?		0	
Complete Component Analysis?		0	
Repaired all leaks and breaks to the extent cost effective?		Yes	On Track
Locate and repair unreported leaks to the extent cost effective.		Yes	On Track
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.			
Provided 7 types of Water Loss Control Info			
Leaks Repaired	Value Real Losses	Value Apparent Losses	Miles Surveyed
0	\$ -	\$ -	0
			Press Reduction
			0
			Cost of Interventions
			\$ -
			Water Saved
			- 0

Metro Districts consist of small, medium and large rate making areas, or CSA's (Customer Service Area's).

On Track if Yes, Not on Track if No

Artesia
Bell-Bell Gardens
Culver City
Florence Graham
Norwalk
Hollydale
Southwest (Carson) (SW)
Willowbrook

On Track if Yes, Not on Track if No

Info only until 2012

Info only until 2012

Info only until 2012

On Track if Yes, Not on Track if No

On Track if Yes, Not on Track if No

Info only until 2012

Info only until 2012

Compile Standard Water Audit using AWWA Software?		2010 Yes	On Track
AWWA file provided to CUWCC?	Yes		On Track
AWWA Water Audit Validity Score?		See files	
Completed Training in AWWA Audit Method?		Off	
Completed Training in Component Analysis Process?		Off	
Complete Component Analysis?		Off	
Repaired all leaks and breaks to the extent cost effective?		Yes	On Track
Locate and repair unreported leaks to the extent cost effective.		Yes	On Track
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.			
Provided 7 types of Water Loss Control Info			
Leaks Repaired	Value Real Losses	Value Apparent Losses	Miles Surveyed
0	\$ -	\$ -	0
			Press Reduction
			0
			Cost of Interventions
			\$ -
			Water Saved
			- 0

On Track if Yes, Not on Track if No

On Track if Yes, Not on Track if No

Info only until 2012

Info only until 2012

Info only until 2012

On Track if Yes, Not on Track if No

On Track if Yes, Not on Track if No

Info only until 2012

Info only until 2012

Agency: **Golden State Water Company**
Retail

District Name: **Metro**

CUWCC Unit #: **5041**



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

Exemption or 'At least as Effective As' accepted by CUWCC

Numbered Unmetered Accounts **2008**

Metered Accounts billed by volume of use

Number of CII accounts with Mixed Use meters

Conducted a feasibility study to assess merits of a program to provide incentives to switch mixed-use accounts to dedicated landscape meters?

Feasibility Study provided to CUWCC?

Completed a written plan, policy or program to test, repair and replace meters

2009		2010	
0	On Track	0	On Track
Yes	On Track	Yes	On Track
2,028		2,050	
No	On Track until 2012	No	On Track until 2012
No	On Track until 2012	No	On Track until 2012
Yes	On Track	Yes	On Track

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

On Track if no unmetered accounts

Volumetric billing required for all connections on same schedule as metering

Info only

On Track if Yes, Not on Track if No

On Track if Yes, Not on Track if No

On Track if Yes, Not on Track if No



CUWCC BMP RETAIL COVERAGE REPORT 2009-2010

Foundation Best Management Practices for Urban Water Efficiency

Agency: **Golden State Water Company**
Retail

District Name: **Metro**

CUWCC Unit #: **5041**

Coverage Report Date: **June 9, 2011**

Primary Contact: **John Turner**

Email: **johnturner@gswater.com**

1.4 Retail Conservation Pricing

Metered Water Rate Structure

Date 2009 data received **June 15, 2011**

Date 2010 data received **June 15, 2011**

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

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

Agency: **Golden State Water Company**
Retail

District Name: **Metro**

CUWCC Unit #: **5041**

Coverage Report Date: **June 9, 2011**



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	\$ 6,111	Single-Family	\$ 7,929
Multi-Family	Increasing Block	\$ 1,433	Multi-Family	\$ 1,860
Commercial	Uniform	\$ 9,467	Commercial	\$ 12,282
Industrial	Uniform	\$ 477	Industrial	\$ 619
Institutional	Uniform	\$ 1,050	Institutional	\$ 1,363
Dedicated Irrigation		\$ 138		\$ 179
Other		\$ 217		\$ 282
Total Revenue Commodity Charges (V):		\$ 18,894		\$ 24,513
Total Revenue Fixed Charges (M):		\$ 11,171		\$ 14,493
Calculate: $V / (V + M)$:		63%		63%
		On Track		Not on Track

Agency Choices for rates:

A) Agencies signing MOU prior to 13 June2007, implementation starts 1 July2007: On Track if $(V / (V + M)) \geq 70\% \times .8 = 56\%$ for 2009 and $70\% \times 0.90 = 63\%$ for 2010; Not on track if $(V / (V + M)) < 70\%$;

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

Canadian Water & Wastewater Rate Design Model Used and Provided to CUWCC
If Canadian Model is used, was 1 year or 3 year period applied?

No
On Track

No
On Track

Wastewater Rates

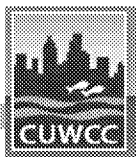
Does Agency Provide Sewer Service?

2009 If 'No', then wastewater rate info not required.
No

2010
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

Does a wholesale agency implement Public Outreach Programs for this utility's benefit?

Names of Wholesale Agencies

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

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

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

4) Description of materials used to meet minimum requirement.

5) Annual budget for public outreach program.

6) Description of all other outreach programs

2009	2010
Yes	Yes
Metropolitan Water District of Los Angeles, West Basin Municipal Water District, Central Basin Municipal Water District	Metropolitan Water District of Los Angeles, West Basin Municipal Water District, Central Basin Municipal Water District
25	25
4	4
Yes	Yes
Newsletter articles on conservation Website Newspaper contacts	Water Conservation Tips, Water Conservation videos, Mandatory rationing, Voluntary rationing, May is Water Awareness Month, Tiered Rates
\$ 25,000	\$ 25,000
Description is too large for text area. Data will be stored in the BMP Reporting database when online.	Description is too large for text area. Data will be stored in the BMP Reporting database when online.
On Track	On Track

Yes/No

All 6 action types implemented and reported to CUWCC to be '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

Does a wholesale agency implement School Education Programs for this utility's benefit?
Name of Wholesale Supplier?

1) Curriculum materials developed and/or provided by agency

2) Materials meet state education framework requirements and are grade-level appropriate?

3) Materials Distributed to K-6?

Describe K-6 Materials

Materials distributed to 7-12 students?

4) Annual budget for school education program.

5) Description of all other water supplier education programs

2009	2010	
No	No	
0	0	
Discover Science Center Each participant receives classroom materials and a water conservation and activity Kit containing efficiency measures for their homes to perform the hands-on activities. Modifications were made to select materials which incorporate	Discover Science Center Each participant receives classroom materials and a water conservation and activity Kit containing efficiency measures for their homes to perform the hands-on activities. Modifications were made to select materials which incorporate	Yes/ No
Yes	Yes	All 5 actions types implemented and reported to CUWCC to be 'On
Yes	Yes	
Discover Science Center Each participant receives classroom materials and a water conservation and activity Kit containing efficiency measures for their homes to perform the hands-on activities. Modifications were made to select materials which incorporate	Discover Science Center Each participant receives classroom materials and a water conservation and activity Kit containing efficiency measures for their homes to perform the hands-on activities. Modifications were made to select materials which incorporate	Describe materials to meet minimum requirements
No	No	Info Only
\$ 200,000	\$ 200,000	
Harvest Festival & Water Awareness Month held at West Basin.	Harvest Festival & Water Awareness Month held at West Basin.	
0 On Track	0 On Track	



CUWCC BMP COVERAGE REPORT BMP 3 RESIDENTIAL

Agency: Golden State Water Company

District Name: Metro

CUWCC Unit #: 5041

Primary Contact John Turner

Date: January 0, 1900

Email: johnturner@gswater.com

Compliance Option Chosen By Reporting Agency:

Flex Track

BMP 3 C 1) Residential Assistance

Total Number of Customers

Total Participants during Reporting Period

Number of Leak Detection Surveys or Assistance on Customer Property

Number of Faucet Aerators Distributed

Number of WSS Showerheads Distributed

2009	2009	2009	2009
Single Family Accounts	SF Target	Multi Family Units	MF Targets
50,487		21,637	
13,268		97	
4,186	757	32	325
		900	
26,572		194	
10,100		65	
	On Track		On Track

2010	2010	2010	2010
Single Family Accounts	SF Target	Multi Family Units	MF Targets
50,620		21,694	
14,100		119	
2,945	759	20	325
		921	
28,200		55	
11,045		27	
	On Track		On Track

"On Track" if annual number of surveys/assistance >= 1.5% of SF accounts and MF units

Agency: Golden State Water Company

District Name: Metro

CUWCC Unit #: 5041

BMP 3 C2) Landscape Water Surveys

Number of SF account landscape
water surveys completed
Surveys as Percent of SF Accounts

2009
SF
5,308 757
10.50%
On Track

MF surveys

932

2010
SF
5,391 758
10.65%
On Track

MF surveys

941

"On Track" if annual number of
landscape surveys >= 1.5% of
SF accounts

BMP 3 C3) High Efficiency Clothes Washers

Number Financial Incentives Provided
to Customers

Percent

2009
277 454
0.55%
Not on Track

2010
905 506
1.79%
On Track

"On Track" if number of
incentives for HECW (WVF.=5.0)
=> 0.9% SF accounts in 2009
and 1.0 % in 2010

BMP 3 C4) Water Sense Specification Toilets

2009

2010

Retrofit 'On Resale' Ordinance exists

No

No

75% Market Penetration Achieved

If 'Yes' is documentation provided?

No

No

Ordinance must require
replacement of toilets => 3.5
gpf when property is sold
On Track if ordinance exists
On Track if 75% penetration achieved and
documentation provided

Five year average Resale Rate

SF 4%

MF Units 9%

SF 4%

MF Units 9%

Number Toilets per Household

2

1

2

1

Number WSS Toilets Installed

1,251

532

1,300

0

Ave Resale Rate X Toilets /residence

On Track if number of toilets installed =>
average resale rate X number toilets per
residence (from Base Year Data)

BMP 3 C5) WSS for New Residential Development

Does an Ordinance Exists Requiring WSS
Fixtures and Appliances in new SF and MF

2009 SF
Yes

2009 MF
Yes

2010 SF
Yes

2010 MF
Yes

On Track if ordinance exists requiring WSS in
new residential units and documentation is
provided

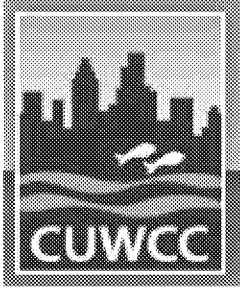
Agency Row # _____

Enter District ID No. **5041**

Data File Name _____

2009 BMP5 _____

2010 BMP 5 _____



CUWCC BMP COVERAGE REPORT

Traditional BMP 4 - Comercial Industrial Institutional

Agency: **Golden State Water Company**

District Name: **Metro**

CUWCC Unit #: **5041**

Primary Contact John Turner

Email: johnturner@gswater.com

Compliance Option Chosen By Reporting Agency: Traditional

Date Agency Signed MOU: 12/11/1991

CII Baseline Water Use (AF): 10,204 AF/Year

Target CII Water Use Reduction (AF)

1,020

Water Efficiency Measures

	2009 Quantity Installed	2009 Water Savings AF	2010 Quantity Installed	2010 Water Savings AF	Type of Program	Other type of Program
1 High Efficiency Toilets (1.2 GPF or less)	1242	51.85	500	20.87	Incentive	
2 High Efficiency Urinals (0.5 GPF or less)						
3 Ultra Low Flow Urinals			40	3.44	Incentive	
4 Zero Consumption Urinals	282	25.97	200	18.42	Incentive	
5 Commercial High Efficiency Single Load Clothes Washers	55	6.41			Incentive	
6 Cooling Tower Conductivity Controllers	1	1.03				
7 Cooling Tower pH Controllers						
8 Connectionless Food Steamers						
9 Medical Equipment Steam Sterilizers						
10 Water Efficient Ice Machines						
11 Pressurized Water Brooms		1 0.15				
12 Dry Vacuum Pumps						
Total Water Savings		85.41		42.73		

Target Reduction is 10% of Baseline CII water use over 10 years.

Guideline: 'On Track' if estimated savings as percent of baseline: 0.5% by the end of first reporting per 2.4% by end of yr 4, 6.4% by end of year 8

9 % by end of yr 10

CII List of Efficiency Measures from MOU Compliance Policies Tier 3, page 5, dated 10-06-09

128.14 On Track


Agency Row # _____

Enter District ID No. **5041**

Data File Name _____

2009 BMP5 _____

2010 BMP 5 _____



CUWCC BMP COVERAGE REPORT

Traditional BMP 5 - Landscape

Agency: **Golden State Water Company** District Name: **Metro** CUWCC Unit #: **5041**
 Primary Contact **John Turner** Email: **johnturner@gswater.com** Report Date: _____
 Compliance Option Chosen By Reporting Agency: **Traditional**
 Date Agency Signed MOU: **12/11/1991** Initial 10 year period completed: **Y/N** If "Yes" , 50% credit for past BMP 9 Implementation? **y/n**

Required Documentation

	2009	2010	
Number of dedicated irrigation meter accounts	298	341	
Number of dedicated irrigation meter accounts with water budgets.			
Percent of dedicated irrigation meters with water budgets			
Target Rate for Year 1	9%	Target Rate for Year 2	18% Not On Track
Aggregate water use for dedicated non-recreational landscape accounts with budgets			
Aggregate acreage assigned water budgets and average ET for dedicated non-recreational landscape accounts with budgets.	2009 Acres 2009 Average ET	2010 Acres 2010 Average ET	
	2009 Accounts $\geq 20\%$ over-budget	2010 Accounts $\geq 20\%$ over-budget	
	Number of Accounts	Number of Accounts	
	Offered Technical Assistance	Offered Technical Assistance	
	Accepting Technical Assistance	Accepting Technical Assistance	
Aggregate acreage of recreational areas assigned water budgets and average ET for dedicated recreational landscape accounts with budgets.	2009 Acres 2009 Average ET	2010 Acres 2010 Average ET	Not On Track - No Data

ETo-based water use budgets developed for 90% of CII accounts with dedicated irrigation meters at an average rate of 9% per year over 10 years

Offer site-specific technical assistance annually to all accounts that are 20% over budget within six years of the date implementation was to commence.

Agency: **Golden State Water Company**District Name: **Metro**CUWCC Unit #: **5041****CII Accounts without Meters or with Mixed-Use Meters**

	2009	2010
Number of mixed use and un-metered accounts.		

Incentive Type	2009 Incentives and Responses		
	Incentive Value \$	Number offered to Customers	Number accepted by Customers
Rebate	2125		4
Smart irrigation Controller-Rebates Timers			

Incentive Type	2010 Incentives and Responses		
	Incentive Value \$	Number offered to Customers	Number accepted by Customers
	5850		11

Agency will implement and maintain a customer incentive program(s) for irrigation equipment retrofits.

	2009 Surveys	
	Number offered.	Number accepted
Landscape Irrigation Surveys		

	2010 Surveys	
	Number offered.	Number accepted
	14	14

Complete irrigation water use surveys for not less than 15% of CII accounts with mixed-use meters and un-metered accounts within 10 years of the date implementation is to commence. (Note: CII surveys that include both indoor and outdoor components can be credited against coverage requirements for both the Landscape and CII BMPs.)

Estimated annual water savings by customers receiving surveys and implementing recommendations.

**2009
Savings AF**

**2010
Savings AF**

Not On Track - No Data

Appendix D

CPUC Water Conservation and Rationing Rules and Regulations

Rule No. 11DISCONTINUANCE AND RESTORATION OF SERVICE**A. Customer's Request for Discontinuance of Service**

1. A customer may have service discontinued by giving not less than two day's advance notice thereof to the utility. Charges for service may be required to be paid until the requested date of discontinuance or such later date as will provide not less than the required two days' advance notice.
2. When such notice is not given, the customer will be required to pay for service until two days after the utility has knowledge that the customer has vacated the premises or otherwise has discontinued water service.

B. Discontinuance of Service by Utility**1. For Nonpayment of Bills**

- a. Past-Due Bills. When bills are rendered monthly or bimonthly, they will be considered past due if not paid within 19 days from the date of mailing. The utility shall allow every residential customer at least 19 days from the date of mailing its bill for services, postage prepaid, to make payment of the bill. The utility may not discontinue residential service for nonpayment of a delinquent account unless the utility first gives notice of the delinquency and impending discontinuance, at least 10 days prior to the proposed discontinuance, by means of a notice mailed, postage prepaid, to the customer to whom the service is provided if different than to whom the service is billed, not earlier than 19 days from the date of mailing the utility's bill for services. The 10-day discontinuance of service notice shall not commence until five days after the mailing of the notice.
- b. When a bill for water service has become past due and a 10-day discontinuance of residential service notice or a 7-day discontinuance of residential service notice for nonpayment has been issued, service may be discontinued if bill is not paid within the time required by such notice. The customer's service, however, will not be discontinued for nonpayment until the amount of any deposit made to establish credit for that service has been fully absorbed.

(T)

(Continued)

Rule No. 11DISCONTINUANCE 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. 11DISCONTINUANCE 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 discontinued. 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)

ISSUED BY

Date Filed July 29, 1993

Advice Letter No. 925-W

F. E. WICKS

Effective Date September 7, 1993

Decision No. _____

President

Resolution No. _____

SOUTHERN CALIFORNIA WATER COMPANY

630 E. FOOTHILL BLVD. P. O. BOX 9016

SAN DIMAS, CALIFORNIA 91773-9016

W

Revised Cal. P.U.C. Sheet No. 745-W

Cancelling Revised Cal. P.U.C. Sheet No. 3075-

Advice Letter No. 925-W

Decision No. _____

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F. E. WICKS

President

Date Filed July 29, 1993

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Resolution No. _____

Rule No. 11DISCONTINUANCE AND RESTORATION OF SERVICE

(Continued)

B. Discontinuance of Services by Utility (Continued)

1. For Nonpayment of Bills (Continued)

h. (Continued)

(2) Where said users are master metered.

The utility is not required to make service available to these users unless each user agrees to the terms and conditions of service, and meets the requirements of the law and the utility's rules and tariffs and the following:

The same Rule 11, item B.1.h. (1) above which applies to individually metered users also applies to master metered users, except a representative may act on the behalf of a master metered user, and the utility will not discontinue service in any of the following situations:

- (a) During the pendency of an investigation by the utility of a master-meter customer dispute or complaint.
- (b) When the master-metered customer has been granted an extension of the period for repayment of a bill.
- (c) For an indebtedness owned by the master metered customer to any other person or corporation or when the obligation represented by the delinquent account or any other indebtedness was incurred with a person or corporation other than the utility demanding payment therefor.
- (d) When a delinquent account relates to another property owned, managed, or operated by the master-metered customer.
- (e) When a public health or building officer certifies that determination would result in a significant threat to the health or safety of the residential occupants or the public. Proof of age or handicap are described in Rule 11.B.1.e.

(N)

(N)

(Continued)

Rule No. 11DISCONTINUANCE 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)

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. (N)
- (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. (N)
- (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. (N)

(Continued)

Advice Letter No. 925-W

Decision No. _____

ISSUED BY

F. E. WICKS

President

Date Filed July 29, 1993Effective Date September 7, 1993Resolution No. W 3770

Rule No. 11DISCONTINUANCE 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.

ISSUED BY

Date Filed July 29, 1993Advice Letter No. 925-W**F. E. WICKS**Effective Date September 7, 1993

Decision No. _____

President

Resolution No. W 3770

SOUTHERN CALIFORNIA WATER COMPANY

630 E. FOOTHILL BLVD. - P. O. BOX 9016
SAN DIMAS, CALIFORNIA 91773-9016

Revised Cal. P.U.C. Sheet No. 3748-W

Canceling Original Cal. P.U.C. Sheet No. 3077-W

Advice Letter No. 925-W

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F. E. WICKS

President

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Rule No. 11DISCONTINUANCE 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 (l) 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)

ISSUED BY

Date Filed August 12, 2004Advice Letter No. 1173-W**F. E. WICKS**Effective Date September 21, 2004Decision No. 04-03-039

President

Resolution No. _____

Rule No. 11DISCONTINUANCE 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.

ISSUED BY

F. E. WICKS

President

Date Filed July 29, 1993

Effective Date September 7, 1993

Resolution No. W 3770

Advice Letter No. 925-W

Decision No. _____

RULE 14.1
WATER CONSERVATION AND RATIONING PLAN

Page 1

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

Page 2
(N)

GENERAL INFORMATION (Continued)

6. In the event of a water supply shortage requiring a voluntary or mandatory program, the utility shall make available to its customers water conservation kits as required by its version of Rule 20. The utility shall notify all customers of the availability of conservation kits via a bill insert or direct mailers.

A. CONSERVATION - NON-ESSENTIAL OR UNAUTHORIZED WATER USE

No customer shall use utility-supplied water for non-essential or unauthorized uses, including but not limited to:

1. Use of potable water for more than minimal landscaping, as defined in the landscaping regulated of the jurisdiction or as described in Article 10.8 of the California Government Code in connection with new construction;
2. Use through any meter when the company has notified the customer in writing to repair a broken or defective plumbing, sprinkler, watering or irrigation system and the customer has failed to effect such repairs within five business days;
3. Use of potable water which results in flooding or runoff in gutters or streets;
4. Individual private washing of cars with a hose except with the use of a positive action shut-off nozzle. Use of potable water for washing commercial aircraft, cars, buses, boats, trailers, or other commercial vehicles at any time, except at commercial or fleet vehicle or boat washing facilities operated at a fixed location where equipment using water is properly maintained to avoid wasteful use;
5. Use of potable water washing buildings, structures, , driveways, patios, parking lots, tennis courts, or other hard-surfaced areas, except in the cases where health and safety are at risk;
6. Use of potable water to irrigate turf, lawns, gardens, or ornamental landscaping by means other than drip irrigation, or hand watering without quick acting positive action shut-off nozzles, on a specific schedule, for example: 1) before 8:00 a.m. and after 7:00 p.m.; 2) every other day; or 3) selected days of the week;

(N)

(Continued)

**RULE 14.1
WATER CONSERVATION AND RATIONING PLAN**

Page 3

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

Page 4

STAGED MANDATORY RATIONING OF WATER USAGE (Continued) (N)

- a. A staged Schedule 14.1 that has been authorized by the Commission shall remain dormant until triggered by specific conditions detailed in the Schedule 14.1 tariff and utility has requested and received authorization for activating a stage by Commission.
- b. Notice of the Tier 2 advice letter (example shown in Appendix C) and associated public participation hearing shall be provided to customers under General Order (GO) 96-B rules.
- c. Utility shall comply with all requirements of Sections 350-358 of the California Water Code.
- d. The Tier 2 advice letter requesting institution of a Schedule 14.1 shall include but not be limited to:
 - i. Proposed Schedule 14.1 tariff, which shall include but not be limited to:
 - 1. Applicability,
 - 2. Territory applicable to,
 - 3. A detailed description of each Stage of Rationing,
 - 4. A detailed description of the Trigger that Activates each Stage of Rationing,
 - 5. A detailed description of each water use restriction for each stage of rationing.
 - 6. Water use violation levels, written warning levels, associated fines, and exception procedures,

(Continued)

(N)

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,
- 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)

(N)

(Continued)

RULE 14.1
WATER CONSERVATION AND RATIONING PLAN

STAGED MANDATORY RATIONING OF WATER USAGE (Continued)

Page 6

(N)

- a. These monies shall be accumulated by the utility in a separate memorandum account for disposition as directed or authorized from time to time by the Commission.

C. ENFORCEMENT OF STAGED MANDATORY CONSERVATION AND RATIONING

1. The water use restrictions of the conservation program, in Section A of this rule, become mandatory when the authorized Schedule 14.1-Staged Mandatory Rationing Program is triggered, the utility files a Tier 1 advice letter requesting activation of a particular stage, and authorization is received from the Commission.
 - a. In the event a customer is observed to be using water for any nonessential or unauthorized use as defined in Section A of this rule, the utility may charge a water use violation fine in accordance with Schedule No. 14.1.
2. The utility may, after one written warning and one non-essential or unauthorized use violation notice, install a flow-restricting device on the service line of any customer observed by utility personnel to be using water for any non-essential or unauthorized use as defined in Section A above.
3. A flow restrictor shall not restrict water delivery by greater than 50% of normal flow. The restricting device may be removed only by the utility, only after a three-day period has elapsed, and only upon payment of the appropriate removal charge as set forth in Schedule No. 14.1.
4. After the removal of the restricting device, if any non-essential or unauthorized use of water shall continue, the utility may install another flow-restricting device. This device shall remain in place until water supply conditions warrant its removal and until the appropriate charge for removal has been paid to the utility.
5. Any tampering with flow restricting device by customer can result in fines or discontinuation of water use at the utility's discretion.

(N)

(Continued)

RULE 14.1
WATER CONSERVATION AND RATIONING PLAN

ENFORCEMENT OF STAGED MANDATORY CONSERVATION AND RATIONING
(Continued)

Page 7
(N)

6. If, despite installation of such flow-restricting device pursuant to the provisions of the previous enforcement conditions, any such non-essential or unauthorized use of water shall continue, then the utility may discontinue water service to such customer. In such latter event, a charge as provided in Rule No. 11 shall be paid to the utility as a condition to restoration of service.
7. All monies collected by the utility through water use violation fines shall not be accounted for as income. All expenses incurred by utility to implement Rule 14.1 and Schedule 14.1 that have not been considered in a General Rate Case or other proceeding, shall be recoverable by utility if determined to be reasonable by Commission. These additional monies shall be accumulated by the utility in a separate memorandum account for disposition as directed or authorized from time to time by the Commission.
8. The charge for removal of a flow-restricting device shall be in accordance with Schedule No. 14.1.

D. APPEAL PROCEDURE

1. Any customer who seeks a variance from any of the provisions of this water conservation and rationing plan shall notify the utility in writing, explaining in detail the reason for such a variation. The utility shall respond to each such request in writing.
2. Any customer not satisfied with the utility's response may file an appeal with the staff of the Commission. The customer and the utility will be notified of the disposition of such appeal by letter from the Executive Director of the Commission.

(N)

(Continued)

RULE 14.1
WATER CONSERVATION AND RATIONING PLAN

APPEAL PROCEDURE (Continued)

Page 8

(N)

3. If the customer disagrees with such disposition, the customer shall have the right to file a formal complaint with the Commission. Except as set forth in this Section, no person shall have any right or claim in law or in equity, against the utility because of, or as a result of, any matter or thing done or threatened to be done pursuant to the provisions of this water conservation and rationing plan.

E. PUBLICITY

1. As stated under Section B.1.b and c, when a utility requests authorization of a Schedule 14.1 – Staged Mandatory Water Conservation and Rationing tariff, via a Tier 2 advice letter, it shall provide notice of the Tier 2 advice letter (example shown in Attachment C) and associated public meeting provided to customers, under General Order (GO) 96-B rules, and shall comply with all requirements of Sections 350-358 of the California Water Code (CWC), including but not limited to the following:
 - a. In order to be in compliance with both the GO and CWC, the utility shall provide notice via both newspaper and bill insert/direct mailing.
 - b. Utility shall file one notice for each advice letter filed, that includes both notice of the filing of the Tier 2 advice letter as well as the details of the public meeting (date, time, place, etc).
 - c. The public meeting shall be held after the utility files the Tier 2 advice letter, and before the Commission authorizes implementation of the tariff.
 - d. Utility shall consult with Division of Water and Audits staff prior to filing advice letter, in order to determine details of public meeting.
2. In the event that a Schedule 14.1-Staged Mandatory Rationing Plan is triggered, and an utility requests activation through the filing of a Tier 1 advice letter, the utility shall notify its customers and provide each customer with a copy of Schedule 14.1 by means of bill insert or direct mailing. Notification shall take place prior to imposing any fines associated with this plan.

(N)

(Continued)

RULE 14.1
WATER CONSERVATION AND RATIONING PLAN

PUBLICITY (Continued)

Page 9

3. During the period that a stage of Schedule 14.1 is activated, the utility shall provide customers with updates in at least every other bill, regarding its water supply status and the results of customers' conservation efforts.

(N)

(N)

Rule No. 20

WATER CONSERVATION

(N)

A. Purpose

The purpose of this rule is to ensure that water resources available to the utility are put to a reasonable beneficial use and that the benefits of the utility's water supply and service extend to the largest number of persons.

B. Waste of Water Discouraged

Refer to Rule 11 B. (3).

C. Use of Water-Saving Devices and Practices

Each customer of the utility is urged to install devices to reduce the quantity of water to flush toilets and to reduce the flow rate of showers.

Each customer is further urged to adopt such other water usage and reuse practices and procedures as are feasible and reasonable.

D. Water-Saving Kits

The utility will make available, without initial cost to the customer, for use in each residence receiving water service from the utility, a water-saving kit containing the following:

- (1) A device or devices for reducing toilet flush water requirements;
- (2) A device or devices for reducing shower flow rates;
- (3) A dye tablet or tablets for determining if a toilet tank leaks;
- (4) Other devices from time to time approved by the utility;
- (5) Installation and other instructions and information pertinent to conservation of water.

(N)

ISSUED BY

Date Filed June 12, 1978Advice Letter No. 521-W**W. W. FRANKLIN**Effective Date July 12, 1978Decision No. 88466

President

Resolution No. _____

Appendix E

DMM Supporting Documents

Schedule No. ME-1-R
Metropolitan District
RESIDENTIAL METERED SERVICE

APPLICABILITY

Applicable to all residential metered water services provided to single-family residential customers.

TERRITORY

Portions of the Cities of Artesia, Bell, Bell Gardens, Carson, Cerritos, Compton, Cudahy, Culver City, Downey, El Segundo, Gardena, Hawaiian Gardens, Hawthorne, Huntington Park, Inglewood, Lakewood, La Mirada, Lawndale, Long Beach, Norwalk, Paramount, Santa Fe Springs, South Gate, and the communities of Athens, Lennox, and Moneta and vicinity, Los Angeles County, and portions of the City of Los Alamitos, Orange County.

RATES

Quantity Rates:

First 1,100 cu. ft., per 100 cu. ft.....	\$3.417	(I)
Next 400 cu. ft., per 100 cu. ft.....	\$3.930	(I)
Over 1,500 cu. ft., per 100 cu. ft.....	\$4.519	(I)

Service Charge:

	<u>Per Month</u>	
For 5/8 x 3/4-inch meter.....	\$ 13.75	(I)
For 3/4-inch meter.....	20.65	(I)
For 1-inch meter.....	34.45	(I)
For 1-1/2 inch meter.....	68.85	(I)
For 2-inch meter.....	110.00	(I)
For 3-inch meter.....	207.00	(I)
For 4-inch meter.....	344.00	(I)
For 6-inch meter.....	689.00	(I)
For 8-inch meter.....	1,102.00	(I)
For 10-inch meter.....	1,584.00	(I)

Sprinkler Service Charge \$15.15 (I)

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 Rates.

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 \$0.140 per Ccf for Tier 1, \$0.161 per Ccf for Tier 2 and \$0.185 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 1380-W, which is March 21, 2010. (C)
This surcharge will recover the undercollection in the WRAM/MCBA Balancing Accounts, as of December 31, 2009.
4. As authorized by the California Public Utilities Commission, an amount of \$0.090 per Ccf for Tier 1, \$0.104 per Ccf for Tier 2 and \$0.119 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 1400-W, which is June 7, 2010. This surcharge will recover the undercollection in the CARW Balancing Account, as of December 31, 2009. (C)
5. Pursuant to Decision 10-11-035, a surcharge of \$0.0056 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 1416-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, an amount of \$0.0116 per Ccf is to be added to the Quantity Rate for a period of 12 months, beginning on the effective date of Advice Letter 1371-WA, which is November 1, 2010. This surcharge will recover the under-collection in the Outside Services Memorandum Account.
7. As authorized by the California Public Utilities Commission in D. 10-11-035, an amount of \$0.12933 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.

ISSUED BY

Date Filed: December 15, 2010

Advice Letter No. 1423-W

R. J. SPROWLS

Effective Date: January 1, 2011

Decision No. 10-11-035

President

Resolution No. _____

GOLDEN STATE WATER COMPANY

630 E. FOOTHILL BLVD. - P. O. BOX 9016

SAN DIMAS, CALIFORNIA 91773-9016

Revised Cal. P.U.C. Sheet No. 5958-WCanceling Revised Cal. P.U.C. Sheet No. 5942-W

Schedule No. ME-1-NR
Metropolitan District
NON-RESIDENTIAL METERED SERVICE

APPLICABILITY

Applicable to all metered water service except those covered under ME-1-R.

TERRITORY

Portions of the Cities of Artesia, Bell, Bell Gardens, Carson, Cerritos, Compton, Cudahy, Culver City, Downey, El Segundo, Gardena, Hawaiian Gardens, Hawthorne, Huntington Park, Inglewood, Lakewood, La Mirada, Lawndale, Long Beach, Norwalk, Paramount, Santa Fe Springs, South Gate, and the communities of Athens, Lennox, and Moneta and vicinity, Los Angeles County, and portions of the City of Los Alamitos, Orange County.

RATES

Quantity Rates:

For all water delivered, per 100 cu. ft.....	\$ 2.965	(I)
--	----------	-----

Service Charge:

	<u>Per Month</u>	
For 5/8 x 3/4-inch meter.....	\$ 21.40	(I)
For 3/4-inch meter.....	32.10	(I)
For 1-inch meter.....	53.50	(I)
For 1-1/2 inch meter.....	107.00	(I)
For 2-inch meter.....	171.00	(I)
For 3-inch meter.....	321.00	(I)
For 4-inch meter.....	535.00	(I)
For 6-inch meter.....	1,070.00	(I)
For 8-inch meter.....	1,712.00	(I)
For 10-inch meter.....	2,461.00	(I)

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 Rates.

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 \$0.131 per Ccf is to be added to the Quantity Rate for a period of 24 months, beginning on the effective date of Advice Letter 1380-W, which is March 21, 2010. This surcharge will recover the undercollection in the WRAM/MCBA Balancing Accounts, as of December 31, 2009.
3. As authorized by the California Public Utilities Commission, an amount of \$0.08471 per Ccf is to be added to the Quantity Rate for a period of 12 months, beginning on the effective date of Advice Letter 1400-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 \$0.0056 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 1416-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, an amount of \$0.0116 per Ccf is to be added to the Quantity Rate for a period of 12 Months beginning on the effective date of Advice Letter 1371-W, which is November 1, 2010. This surcharge will recover the under-collection in the Outside Services Memorandum Account.
6. As authorized by the California Public Utilities Commission in D. 10-11-035, an amount of \$0.12933 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.

ISSUED BY

Date Filed: December 15, 2010Advice Letter No. 1423-W**R. J. SPROWLS**Effective Date: January 1, 2011Decision No. 10-11-035

President

Resolution No. _____

AWWA WLCC Water Audit Software: Reporting Worksheet

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WAT-10

[Back to Instructions](#)

[Click to access definition](#)

Water Audit Report for: **Golden State Water Company - Southwest**

Reporting Year: **2008**

Please enter data in the white cells below. Where possible, metered values should be used; if metered values are unavailable please estimate a value. Indicate this by selecting a choice from the gray box to the left, where M = measured (or accurately known value) and E = estimated.

All volumes to be entered as: **ACRE-FEET PER YEAR**

WATER SUPPLIED

Volume from own sources:	<input type="radio"/> M	12,297.000	acre-ft/yr
Master meter error adjustment:	<input type="radio"/> E	0.000	under-registered acre-ft/yr
Water imported:	<input type="radio"/> M	24,999.000	acre-ft/yr
Water exported:	<input type="radio"/> E	0.000	acre-ft/yr
WATER SUPPLIED:		37,296.000	acre-ft/yr

AUTHORIZED CONSUMPTION

Billed metered:	<input type="radio"/> M	34,203.270	acre-ft/yr
Billed unmetered:	<input type="radio"/> E	0.000	acre-ft/yr
Unbilled metered:	<input type="radio"/> E	1,206.510	acre-ft/yr
Unbilled unmetered:	<input type="radio"/> E	456.200	acre-ft/yr
AUTHORIZED CONSUMPTION:		35,875.980	acre-ft/yr

Click here: [for help using option buttons below](#)

Pcnt: ☐ 1.25% ☐ Value:

Use buttons to select percentage OR value

WATER LOSSES (Water Supplied - Authorized Consumption)

Apparent Losses

Unauthorized consumption:	<input type="radio"/> E	93.240	acre-ft/yr
Customer metering inaccuracies:	<input type="radio"/> E	732.645	acre-ft/yr
Systematic data handling errors:	<input type="radio"/> E	5.000	acre-ft/yr
Apparent Losses:		820.885	acre-ft/yr

Pcnt: ☐ 9.23% ☐ Value: ☐ 2.00% ☐

Real Losses

Real Losses = (Water Losses - Apparent Losses):		599.131	acre-ft/yr
WATER LOSSES:		1,420.020	acre-ft/yr

NON-REVENUE WATER

NON-REVENUE WATER:		3,092.730	acre-ft/yr
---------------------------	--	------------------	-------------------

SYSTEM DATA

Length of mains:	<input type="radio"/> M	420.0	miles
Number of active AND inactive service connections:	<input type="radio"/> E	53,769	
Connection density:		128	conn./mile main
Average length of customer service line:	<input type="radio"/> E	30.0	ft (pipe length between curbside and customer meter or property boundary)
Average operating pressure:	<input type="radio"/> M	76.2	psi

COST DATA

Total annual cost of operating water system:	<input type="radio"/> E	\$37,527,841	\$/Year
Customer retail unit cost (applied to Apparent Losses):	<input type="radio"/> E	\$40.77	\$/100 cubic feet (ccf)
Variable production cost (applied to Real Losses):	<input type="radio"/> E	\$655.00	\$/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:
5 as measured values
4 as estimated values
2 as default values
7 without specifying measured, estimated or default
- Water Supplied Data: No problems identified
- Unbilled unmetered consumption: No problems identified
- Unauthorized consumption: No problems identified
- It is important to accurately measure the master meter - you have entered the measurement type as: measured
- Cost Data: No problems identified

PERFORMANCE INDICATORS

Financial Indicators

Non-revenue water as percent by volume:	8.3%
Non-revenue water as percent by cost:	42.9%
Annual cost of Apparent Losses:	\$14,578,498
Annual cost of Real Losses:	\$392,431

Operational Efficiency Indicators

Apparent Losses per service connection per day:	13.63	gallons/connection/day
Real Losses per service connection per day*:	9.95	gallons/connection/day
Real Losses per length of main per day*:	N/A	
Real Losses per service connection per day per psi pressure:	0.13	gallons/connection/day/psi
<input type="radio"/> Unavoidable Annual Real Losses (UARL):	351.24	million gallons/year
<input type="radio"/> Infrastructure Leakage Index (ILI) (Real Losses/UARL):	0.56	

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

Appendix F

Groundwater Basin Water Rights Stipulation/Judgment

CHANGES BETWEEN FIRST AND LATEST DRAFT OF AMENDED
WEST BASIN JUDGMENT

<u>LATEST VERSION</u>	<u>FIRST DRAFT OF AMENDED JUDGMENT</u>	<u>PAGE #</u>
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XV	XIV	61
XVI	VI	40
XVII	XVI	62
XVIII	XVII	64
XIX	XIX	64
XX	XVIII	64
XXI	XX	65

1 HELM, BUDINGER & LEMIEUX
2 An Association, Including A
3 Professional Corporation
4 4444 Riverside Drive, Suite 201
5 Burbank, CA. 91505
6 (213) 849-6473

7
8 Attorneys for Defendant,
9 Dominguez Water Corporation
10

11 SUPERIOR COURT OF THE STATE OF CALIFORNIA
12 FOR THE COUNTY OF LOS ANGELES
13

14 CALIFORNIA WATER SERVICE)
15 COMPANY, et al.,)

NO. 506,806

16 Plaintiffs)

AMENDED JUDGMENT

17 vs.

18 CITY OF COMPTON, et al.,

19 Defendants.)
20
21
22
23
24
25
26
27
28

(DECLARING AND ESTABLISHING
WATER RIGHTS IN THE WEST COAST
BASIN, IMPOSING A PHYSICAL
SOLUTION THEREIN AND ENJOINING
EXTRACTIONS THEREFROM IN EXCESS
OF SPECIFIED QUANTITIES.)

1
2 AMENDED JUDGMENT

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11 The objections to the Report of Referee and to all sup-
12 plemental Reports thereto, having been considered upon ex-
13 ceptions thereto filed with the Clerk of the Court in the manner
14 of and within the time allowed by law, were overruled.

Pursuant to the reserved and continuing jurisdiction of the Court under the Judgment herein, certain amendments to said Judgment and temporary Orders have heretofore been made and entered.

The motion of defendant herein, DOMINGUEZ WATER CORPORATION, for further amendments to the Judgment, notice thereof and of the hearing thereon having been duly and regularly given to all parties, came on for hearing in Department 48 of the

1 above-entitled Court on _____, 1979, at 1:30
2 o'clock P.M., before said HONORABLE JULIUS M. TITLE. Defendant,
3 DOMINGUEZ WATER CORPORATION, was represented by its attorneys,
4 Helm, Budinger & Lemieux, and Ralph B. Helm. Various other
5 parties were represented by counsel of record appearing on the
6 Clerk's records. Hearing thereon was concluded on that date.
7 The within "Amended Judgment" incorporates amendments and orders
8 heretofore made to the extent presently operable and amendments
9 pursuant to said last mentioned motion. To the extent this
10 Amended Judgment is a restatement of the Judgment as heretofore
11 amended, it is for convenience in incorporating all matters
12 in one document, it is not a readjudication of such matters and
13 is not intended to reopen any such matters. As used hereinafter
14 the word "Judgment" shall include the original Judgment as
15 amended to date.

16 NOW, THEREFORE, IT IS HEREBY ORDERED, ADJUDGED AND
17 DECREED AS FOLLOWS:

18 I.

19 Existence of Basin and Boundaries Thereof.

20 There exists in the County of Los Angeles, State of Cali-
21 fornia, an underground water basin or reservoir known and herein-
22 after referred to as "West Coast Basin", "West Basin" or the
23 "Basin", and the boundaries thereof are described as follows:

24 Commencing at a point in the Baldwin Hills
25 about 1300 feet north and about 100 feet west of
26 the intersection of Marvale Drive and Northridge
27 Drive; thence through a point about 200 feet
28 northeasterly along Northridge Drive from the

1 intersection of Marvale and Northridge Drives to
2 the base of the escarpment of the Potrero fault;
3 thence along the base of the escarpment of the
4 Potrero fault in a straight line passing through
5 a point about 200 feet south of the intersection
6 of Century and Crenshaw Boulevards and extending
7 about 2650 feet beyond this point to the southerly
8 end of the Potrero escarpment; thence from the
9 southerly end of the Potrero escarpment in a line
10 passing about 700 feet south of the intersection
11 of Western Avenue and Imperial Boulevard and about
12 400 feet north of the intersection of El Segundo
13 Boulevard and Vermont Avenue and about 1700 feet
14 south of the intersection of El Segundo Boulevard
15 and Figueroa Street to the northerly end of the
16 escarpment of the Avalon-Compton fault at a point
17 on said fault about 700 feet west of the inter-
18 section of Avalon Boulevard and Rosecrans Avenue;
19 thence along the escarpment of the Avalon-Compton
20 fault to a point in the Dominguez Hills located
21 about 1300 feet north and about 850 feet west of
22 the intersection of Central Avenue and Victoria
23 Street; thence along the crest of the Dominguez
24 Hills in a straight line to a point on Alameda
25 Street about 2900 feet north of Del Amo Boulevard
26 as measued along Alameda Street; thence in a
27 straight line extending through a point located on
28 Del Amo Boulevard about 900 feet west of the

1 Pacific Electric Railway to a point about 100
2 feet north and west of the intersection of Bixby
3 Road and Del Mar Avenue; thence in a straight
4 line to a point located about 750 feet west and
5 about 730 feet south of the intersection of Wardlow
6 Road and Long Beach Boulevard at the escarpment
7 of the Cherry Hill fault; thence along the escarp-
8 ment of the Cherry Hill fault through the inter-
9 section of Orange Avenue and Willow Street to a
10 point about 400 feet east of the intersection of
11 Walnut and Creston Avenues; thence to a point on
12 Pacific Coast Highway about 300 feet west of its
13 intersection with Obispo Avenue; thence along
14 Pacific Coast Highway easterly to a point located
15 about 650 feet west of the intersection of the
16 center line of said Pacific Coast Highway with
17 the intersection of the center line of Lakewood
18 Boulevard; thence along the escarpment of the
19 Reservoir Hill fault to a point about 650 feet
20 north and about 700 feet east of the intersection
21 of Anaheim Street and Ximeno Avenue; thence along
22 the trace of said Reservoir Hill fault to a point
23 on the Los Angeles - Orange County line about
24 1700 feet northeast of the Long Beach City limit
25 measured along the County line; thence along said
26 Los Angeles - Orange County line in a southwesterly
27 direction to the shore line of the Pacific Ocean;
28 thence in a northerly and westerly direction along

1 the shore line of the Pacific Ocean to the in-
2 tersection of said shore line with the southerly
3 end of the drainage divide of the Palos Verdes
4 Hills; thence along the drainage divide of the
5 Palos Verdes Hills to the intersection of the
6 northerly end of said drainage divide with the
7 shore line of the Pacific Ocean; thence northerly
8 along the shore line of the Pacific Ocean to the
9 intersection of said shore line with the westerly
10 projection of the crest of the Ballona escarpment;
11 thence easterly along the crest of the Ballona
12 escarpment to the mouth of Centinela Creek; thence
13 easterly from the mouth of Centinela Creek across
14 the Baldwin Hills in a line encompassing the en-
15 tire watershed of Centinela Creek to the point of
16 beginning.

17 All streets, railways and boundaries of Cities and
18 Counties hereinabove referred to are as the same existed at
19 12:00 o'clock noon on August 20, 1961.

20 The area included within the foregoing boundaries is
21 approximately 101,000 acres in extent.

22 II.

23 Definitions:

24 1. Basin, West Coast Basin and West Basin, as these terms
25 are interchangeably used herein, mean the ground water basin
26 underlying the area described in Paragraph I hereof.

27 2. A fiscal year, as that term is used herein, is a
28 twelve month period beginning July 1 and ending June 30.

3. A water purveyor, as that term is used in Paragraph XII hereof, means a party which sells water to the public, whether a regulated public utility, mutual water company or public entity, which has a connection or connections for the taking of imported water through The Metropolitan Water District of Southern California, through West Basin Municipal Water District, or access to such imported water through such connection, and which normally supplies at least a part of its customers' water needs with such imported water.

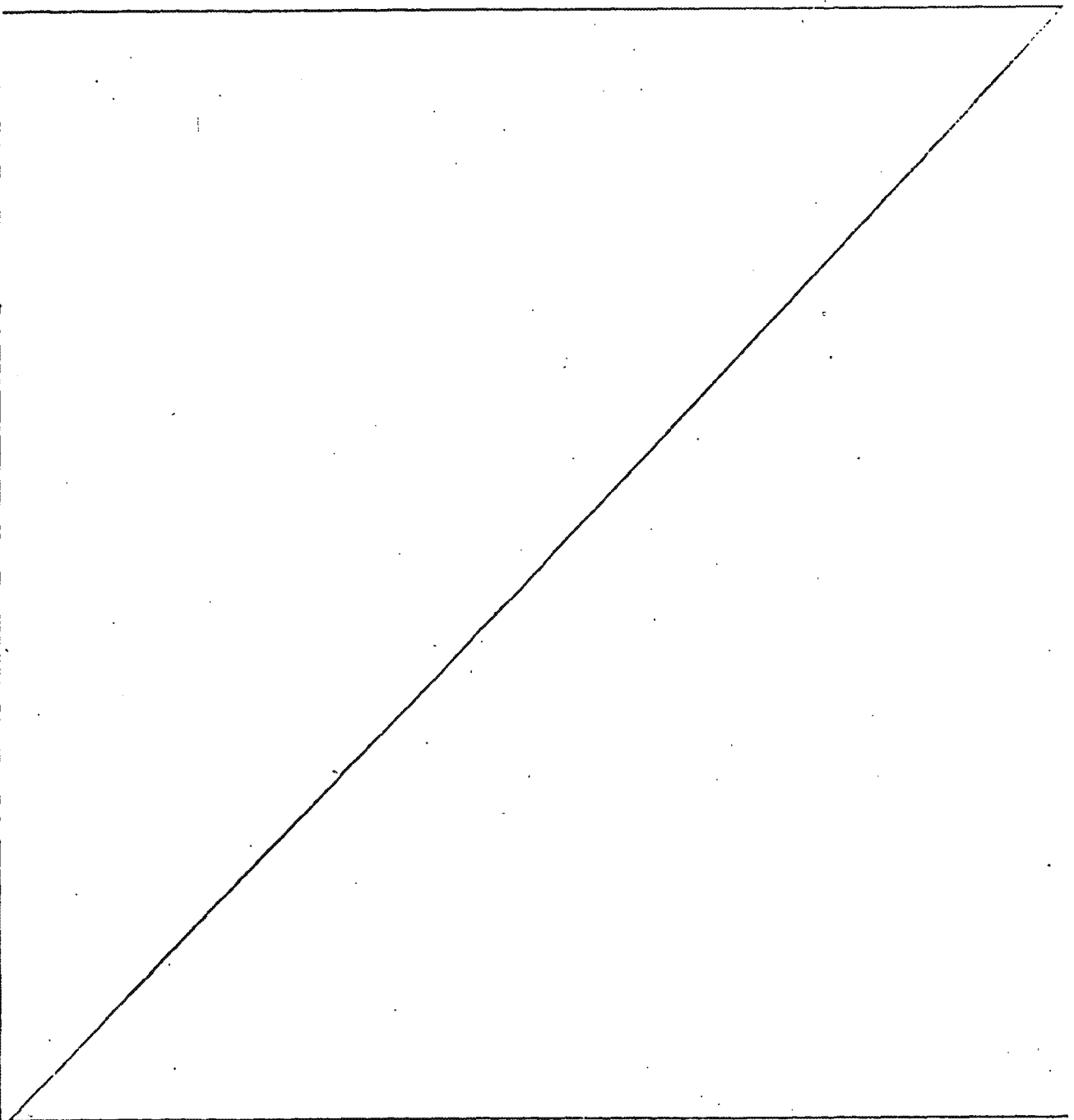
4. A water year, as that term is used herein, is a twelve month period beginning October 1 and ending September 30, until it is changed to a "fiscal year," as provided in Paragraph XVI hereof.

III.

Declaration of Rights - Water Rights Adjudicated.

Certain of the parties to this action have no right to extract water from the Basin. The name of each of said parties is listed below with a zero following his name, and the absence of such right in said parties is hereby established and declared. Certain of the parties to this action and/or their successors in interest (through September 30, 1978) are the owners of rights to extract water from the Basin, which rights are of the same legal force and effect and without priority with reference to each other, and the amount of such rights, stated in acre-feet per year, hereinafter referred to as "Adjudicated Rights" is listed below following such parties' names, and the rights of the last-mentioned parties are hereby declared and established accordingly. Provided, however, that the Adjudicated Rights so declared and established

1 shall be subject to the condition that the water, when used, shall
2 be put to beneficial use through reasonable methods of use and
3 reasonable methods of diversion; and provided further that the
4 exercise of all of said Rights shall be subject to a pro rata
5 reduction, if such reduction is required, to preserve said Basin
6 as a common source of water supply.



	<u>PARTY</u> <u>AND SUCCESSOR, IF ANY</u>	<u>ADJUDICATED RIGHT IN</u> <u>ACRE FEET, ANNUALLY</u>
3	ABC NURSERY, INCORPORATED.	24.1
	Successor to Harry C. Jenkins	1.8
4	Successor to Sidney R. Title and Charlotte W. Title	13.6
5	Successor to William Verburg and Clara B. Verburg	6.7
6	Successor in Part to United California Bank	2.0
7		
8	ABEGG, JOE	0
9	ABELL, FRANK	1.8
10	Sold to City of Inglewood	<u>-1.8</u>
11	ABERCROMBY, ALEXANDER	0
	Henry Abercromby	
12	one Fred Roland Cooper	
	one Ted R. Cooper	
13	one Roy F. Knapp	
14	ALCAST FOUNDRY, ET AL.	0
	Successor to Charles L. Draper	
15	et al.	7.2
16	Sold to City of Torrance	<u>-7.2</u>
17	AIRWAYS WATER COMPANY (Incorporated)	0
18	ALLEN, H.A.	0
19	ALLIED CHEMICAL CORPORATION, a corpora-	0
	tion, formerly General Chemical	
20	Company	
21	(See Industrial Chemical Division)	
22	ALUMINUM COMPANY OF AMERICA	0
23	(See U.S. Navy Department)	
24	AMERICAN RADIATOR & STANDARD SANITARY	0
25	CORPORATION, a corporation	
26	ALWAG, HILARIO S. AND EMMA ALWAG	0
	Successor to T.C. Navarro	53.9
27	Successor to Peggy Swick	5.5
	Sold to Torrance Unified	<u>-59.4</u>
28	School District	

PARTY
AND SUCCESSOR, IF ANY

ADJUDICATED RIGHT IN
ACRE FEET, ANNUALLY

AMERICAN PLANT GROWERS, INCORPORATED 10.0

Carl H. Tasche

Second West Coast Basin Judgment 2.6

Successor to Ben Cluff Dairy 7.4

ANDERSON, REMBERT C. 80.5

Allen W. Ashburn

Ann F. Ashburn

Martha D. Bingham

Laura Bonanno

Louise Casey also known as

Louise Casey Gibson

Ruby Decius sued as Jane Doe 19

Ruby F. Joel

Catherine Lass sued as Jane Doe 18

Catherine B. Maddox

Louisa Watson sued as Jane Doe 17

Hazel Parsons

J.W. Parsons

Myrtle Mae Parsons

Alexander Poggi

One Freda E. Poggi

Mary Richley sued as Jane Doe 16

Devises of Gurney E. Newlin, deceased,
to wit:

Helen Newlin Hastings

Robert Pusey Hastings

Thomas Newlin Hastings

Helen Hastings Schribner

Edith Hastings Murphy

George R. Bell, Jr.

Thomas Elwood Bell

Sold to Sparkletts Drinking Water
Corp. -80.5

ASAHI FANCY KOI, INCORPORATED 2.0

Successor in part to Jake Engelsma

ASHBROOK, KATHLEEN formerly 0

Kathleen M. Davies

One J & E Investment Co.

ASSOCIATED SOUTHERN INVESTMENT COMPANY 0

(formerly Edison Securities Company) 46.7

Sold to Southern California

Edison Company -46.7

	<u>PARTY</u> <u>AND SUCCESSOR, IF ANY</u>		<u>ADJUDICATED RIGHT IN</u> <u>ACRE FEET, ANNUALLY</u>
3	ATCHISON, TOPEKA & SANTA FE RAILWAY COMPANY, (The), a corporation		0
5	ATLANTIC RICHFIELD COMPANY (formerly Richfield Oil Company)		4428.0
7	AUTOMATION INDUSTRIES, INC.-HARRIS TUBE Successor to Harris Tube,		0.7
8	Incorporated	<u>0.7</u>	
9	AZEVEDO ESTATE COMPANY, a corporation		0
10	AZVEDO, JOHN		0
11	BAILEY, WM. D.		0
12	Harry C. Cain		
13	Jesse E. Cain		
14	Dorothy Luther sued as Dorothy F. Luther		
15	Harold M. Luther		
15	BALDWIN, E.W.		0
16	BALLMAN, FRANK A. AND ROSEMARY N.	7.0	0
17	BALLMAN Sold to United California Bank	<u>-7.0</u>	
18	BANK OF AMERICA NATIONAL TRUST AND SAVINGS ASSOCIATION, as Trustee		0
19	(under its Trust BI-100)		
20	BANK OF AMERICA NATIONAL TRUST AND SAVINGS ASSOCIATION, as Trustee		0
21	(under its Trust BI-51)	0.1	
22	Released to Michael L. Rockwell	<u>-0.1</u>	
23	BARCLAY HOLLANDER CURCI, INC.		3.33
24	Successor in Part to Joughin Torrance Ranch	3.33	
25	BARCLAY, RICHARD AND R.A. WATT		0
26	Successors to Emma J. Osborn	32.66	
27	Successors in part to Isabela J. Granz Estate	13.55	
28	Successors in part to George R. Murdock	13.75	
	Sold to City of Torrance	<u>-59.96</u>	

	<u>PARTY AND SUCCESSOR, IF ANY</u>	<u>ADJUDICATED RIGHT IN ACRE FEET, ANNUALLY</u>
1		
2		
3	BARNARD, GEORGE W. AND JOSEPH A.	0
4	BARNARD, as Trustees under the last will and testament of ANNIE E. BARNARD one Fritz B. Burns	
5		
6	BARNES, ANNA T. (MRS.)	0
7	one Alfred O. Barnes	
8	BAUMAN, GUS A.	0
9	Transferred to Palos Verdes Begonia Farm	
10	BECHTEL, JOHN H.	0
11	one Riverside Cement Company	
12	BEGO CORPORATION, a corporation	0
13	one Arthur S. Delaney	4.1
13	Sold to Estate of Golda Delaney	<u>-4.1</u>
14	BELLES, J.W.	0
15	one L.W. Mason	
15	one S.M. Mason	
16	BELVIDERE MUTUAL WATER COMPANY	33.4
17	Sold to City of Torrance	<u>-33.4</u>
18	BERARDINO, JAMES, sued as James	0
19	Bernardino and Jim Berardino, sued as Jim Bernardino	
20	BERDOLLT, P.	0
21	T.J. Heithold	
22	BERNARD, A.M.	0
23	one Moneta Gardens, Inc., a corporation	
24	BEST, H.W.	0
25	BIZEGO, LOUIS	0
26	BLACK, ALEXANDER R.	0
27	one Liberty Investment Company	
28	BLAIN, SR., ARTHUR A., sued as A.A. Blain	0

	<u>PARTY</u> <u>AND SUCCESSOR, IF ANY</u>	<u>ADJUDICATED RIGHT IN</u> <u>ACRE FEET, ANNUALLY</u>
1		
2		
3	BLAIS, N.J.	0
4	one Michael Chuchor	
5	one Albert J. Sahm	
6		
7	BLAKE, H.H.	0
8	one Pearl E. Grady	
9		
10	BLOEMSMA, ARNOLD sued as	0
11	Arnold Bloesma	
12		
13	BODGER REALTY COMPANY, (The),	0
14	a corporation	
15		
16	BOISE CASCADE BUILDING COMPANY	0
17	Successor in part to Joughin	16.92
18	Torrance Ranch	
19	Sold to Inglewood, City of	<u>-16.92</u>
20		
21	BOONE, COLIN J.	0
22	Clarence J. Lamb	
23	Lora Lamb	
24		
25	BOONSTRA, ANNA	0
26	Tedde Boonstra	
27	one M.V. Deniz	
28		
29	BOWMAN, CHARLES P. sued as Pat Bowen	0
30	Ann Bowman	
31	one Harlan T. Maples	
32		
33	BROOKS, WAYNE E.	0
34	one Artie Waller	
35	one V.W. Waller	
36		
37	BROWN, CARL L.	0
38		
39	BUCKMASTER, EDA	0
40	Rose Faure	
41	Frank X. Girard	
42	Julia Girard	
43	John Oddoris	
44	Paul Oddoris	
45	Marie Girard Seal sued as Marie Girard	
46	one Frank Girard	
47		
48		

	<u>PARTY</u> <u>AND SUCCESSOR, IF ANY</u>	<u>ADJUDICATED RIGHT IN</u> <u>ACRE FEET, ANNUALLY</u>
3	BULTRY CORPORATION, a corporation	0
4	one Paul E. Black	
	one Ronald L. Black	
5	BURKE, E.D., sued as BURKE, E.W.	0
6	BURKE, W.F.	0
	Lois Price Burke, sued as Jane	
7	Doe 14	9.5
	Sold to H.S. Scott	<u>-9.5</u>
9	BURNS, FRITZ B.	0
10	Second West Coast Basin Judgment	
11	BUTTE, M.P.	0
12	CBS INC.	9.5
13	(Formerly Columbia Broadcasting Systems Inc.)	
14	CALIFORNIA, STATE OF	0
15	Successor to Robert L. Fullilove	1.0
	Successor to Joe Moniz, Jr.	2.2
16	Successor in part to Kelly Pipe Company	16.3
17	Successor in part to Flavio Rodriguez	4.0
18	Successor in part to A.H. Smith, Sam Surber, and Freda Smith	2.6
19	Sold to Sparkletts Drinking Water Corporation	<u>-26.1</u>
20	CALIFORNIA WATER SERVICE COMPANY, a corporation	3071.0
21	Successor to Palos Verdes Water Company	<u>999.0</u>
23	CAMERON, HUGH N.	0
24	Ysaburo Mishima	
	Satsuki Mishima	
25	CARLTON, JACK C.	0
26	CARRELL, ELOISE	0
27	CARRELL, FRANK R. (Estate of)	0
28	Tom Ware and James Blake, as co- executors of the Last Will & Testament of Frank R. Carrell, deceased.	

	<u>PARTY</u> <u>AND SUCCESSOR, IF ANY</u>		<u>ADJUDICATED RIGHT IN</u> <u>ACRE FEET, ANNUALLY</u>
3	CARSON ESTATE COMPANY	130.0	0
4	Sold to Dominguez Water Corp.	<u>-130.0</u>	
5	CARSON-MADRONA COMPANY		104.0
6	Successor to Chanslor-Western Oil and Development Co.	104.0	
7	CAVANAUGH, J.F.		0
8			9.5
9			
10	CENTINELA VALLEY UNION HIGH SCHOOL DISTRICT		0
11			
12	CHAMBERS, MARY RIORDAN, sued as Mary R. Chambers		0
13			
14	CHAMBERS, MARY R. AND DAN MURPHY COMPANY, a corporation		0
15			
16	CHANDLERS PALOS VERDES SAND AND GRAVEL CORP.		294.2
17	Second West Coast Basin Judgment	95.2	
18	Successor to Southwestern Portland Cement Company	15.0	
19	Successor to Torrance Sand and Gravel Corp.	<u>184.0</u>	
20	CHANSWOR-WESTERN OIL & DEVELOPMENT COMPANY		0
21	(Formerly Chanslor-Canfield Midway Oil Co.)	104.0	
22	Sold to Carson-Madrona Company	<u>-104.0</u>	
23	CHEVRON, U.S.A., INC.		4541.7
24	(Formerly Standard Oil Company of California)		
25	CHRISTIE, CLEM		0
26	CHRISTIE, CLEM, DON C. FOHL AND LEON LARSON	0.02	0
27	As Trustees of the Wilmington Cemetery Association		
28	(Abandoned water right)	<u>-0.02</u>	

	<u>PARTY AND SUCCESSOR, IF ANY</u>	<u>ADJUDICATED RIGHT IN ACRE FEET, ANNUALLY</u>
1		
2		
3	CHUCHUA, MICHAEL	0
4	Second West Coast Basin Judgment	
5	CLARK, JENNIE M.	0
6	CLARK, WILFORD H. sued as W.H. Clark	0
7	and Ida E. Clark, sued as Jane Doe 1	
8	CLIFT, LOIS (MRS.)	0
9	COAST INVESTMENT COMPANY,	0
10	a corporation	
11	CLUFF, BEN DAIRY	0
12	Successor to Edward and Emily Cost 7.4	
13	Sold to American Plant Growers, Inc.-7.4	
14	Successor to Southwest Steel	
15	Rolling Mills 3.4	
16	Sold to Georgia-Pacific Corporation- <u>3.4</u>	
17		
18	COLLINS, EDMOND S.	0
19	COLLISTER, CAMERON 136.82	0
20	Quitclaimed to Normandie Park <u>-136.82</u>	
21		
22	COLTRIN, LILY	0
23		
24	COLUMBIA BROADCASTING SYSTEMS, INC.	0
25	sued as Columbia Broadcasting Co. 18.5	
26	Sold to Ronald F. Moran -9.0	
27	Changed name to CBS, Inc. <u>-9.5</u>	
28	(See CBS, Inc.)	
29	COMMUNITY AIRPORTS, INC.,	0
30	a corporation	
31		
32	COMPARETTE, V.G.	0
33		
34	COMPTON BRICK & TILE COMPANY,	0
35	a corporation	
36		
37	COMPTON, CITY OF	0
38	COMPTON UNION HIGH SCHOOL DISTRICT	0

	<u>PARTY AND SUCCESSOR, IF ANY</u>	<u>ADJUDICATED RIGHT IN ACRE FEET, ANNUALLY</u>
1	CONOVER, F.A.	0
2	CONTINENTAL PRODUCTION COMPANY	0
3	Second West Coast Basin Judgment	
4		
5	CORTRITE, A.	0
6	COST, EDWARD AND EMILY COST, sued	0
	as Emily Costa	7.4
7	Sold to Ben Cluff Dairy	<u>-7.4</u>
8	COST, ERNEST	0
9	CROWLEY, DANIEL	0
10	CURTIS, OWEN W.	3.8
	Sold to Southern California	
11	Water Company	<u>-3.44</u>
12	DALLAPE, LOUIS sued as Louis Dallapi	0
13	DALLAPE, TOM	0
14	DARBEAIAN, MIKE	0
15	sued as John Doe 25	
16	DeBARNARDI, LUIGI	0
17	DEFTERIOS, GERASIMOS K.	0
18	one Anna G. Defterios	
19	DEL AMO ESTATE COMPANY	121.0
20	Sold to Dominguez Water Corp.	<u>-121.0</u>
21	DELANEY, GOLDA (ESTATE OF)	4.1
	(Formerly Arthur J. Delaney)	
22	Successor to Rego Corporation	4.1
23	DENISON, HENRY M.	0
24	one Frank A. Basso	
25	DENNIS, ESTHER M. SHEETS	5.5
26	(Formerly Esther M. Sheets)	5.5
27	DERMODY, FRANK	0
28	DESSER ENTERPRISES	0
	Second West Coast Basin Judgment	

	<u>PARTY</u> <u>AND SUCCESSOR, IF ANY</u>	<u>ADJUDICATED RIGHT IN</u> <u>ACRE FEET, ANNUALLY</u>
3	DIBLE, G.	0
4	DIE CAST PRODUCTS, INC.	0
5	Second West Coast Basin Judgment	
6	DIEGO, H. (MRS.)	0
7	DIONNE, JOHN	0
8	one Eleanor G. Dreher	
9	DOMBROWSKI, LEESA	0
10	one Darthmouth Homes, Inc.	
11	DOMINGUEZ ESTATE COMPANY	254.0
12	Sold to Dominguez Water Corp.	<u>-254.0</u>
13	DOMINGUEZ WATER CORPORATION	9477.8
14	Successor to Carson Estate Co.	130.0
15	Successor to Del Amo Estate Co.	121.0
16	Successor to Dominguez Estate Co.	254.0
17	Successor to Don Wilson Builders	32.6
18	Successor to Jeanette R. Heydenbeck	0.7
19	Successor to Kikuno Nakano, et al.	19.3
20	Successor in part to H.J. Early	91.0
21	Successor in part to R.A. Watt, Inc.	61.85
22	Sold in part to Watson Land Co.	<u>-37.6</u>
23	DONALD, RAY (MRS.)	0
24	one Pauline H. Wilson	
25	DOUGLAS AIRCRAFT COMPANY, INC.	0
26	(See McDonnell Douglas Corp.)	
27	DOW CHEMICAL CO., (THE),	0
28	a corporation	
29	DRALE, CRISTINA O.	0
30	O'Brien Z. Drale	
31	XXX	
32	XXX	

	<u>PARTY</u> <u>AND SUCCESSOR, IF ANY</u>	<u>ADJUDICATED RIGHT IN</u> <u>ACRE FEET, ANNUALLY</u>
1		
2		
3	DRAPER, CHARLES L.	7.2
4	one James H. Alleman	
5	one Flora M. Draper	
6	one Bernice Alleman	
7	Bess M. Feder	
8	Ben T. Johnston	
9	Genevieve K. Miles	
10	Ikuko Nakawatse	
11	Frank Wirz	
12	Sold to Allcast Foundry, et al	<u>-7.2</u>
13		
14	DURAND, A.J.	0
15		
16	EARLY, DAISY	0
17	H.J. Early and one Vickers, Inc.	111.0
18	Sold to Samuel R. Fujimoto and	
19	Raymond S. Fujimoto	-20.0
20	Sold to Dominguez Water Corp.	<u>-91.0</u>
21		
22	EAST GARDENA WATER COMPANY	0
23		
24	EDISON SECURITIES COMPANY, a corpora-	0
25	tion sued as Richard Roe Company 13	
26	(now known and shown herein as	
27	Associated Southern Investment Co.)	46.7
28	Sold to Southern California Edison	
29	Company	<u>-46.7</u>
30		
31	EDWARDS, C.O.	0
32	W.J. Edwards	
33		
34	EL CAMINO JUNIOR COLLEGE DISTRICT	0
35		
36	ELLINWOOD, LATHROP M.	32.6
37	Sold to Isamu Kita, Kazuo Kita	
38	and Yoshiki R. Kita	<u>-32.6</u>
39		
40	ELLIOTT, CLINTON sued as C.C. Eliot	0
41	Georgia M. Elliott	
42	Juluis G. Elliott	
43	Frank M. Elliott	
44		
45	EL SEGUNDO, CITY OF	953.0
46		
47	EL SEGUNDO LAND & IMPROVEMENT COMPANY,	0
48	a corporation	

	PARTY AND SUCCESSOR, IF ANY	ADJUDICATED RIGHT IN ACRE FEET, ANNUALLY
1		
2		
3	ENGELSMA, JAKE	12.1
4	Successor to Wilbur Hornstra	14.1
5	Sold to Asahi Fancy Koi, Incorporated	<u>-2.0</u>
6	ENGLAND, GEORGE	0
7	ETCHEMENDY, CAROLINE (ESTATE OF)	8.2
8	(formerly Caroline Etchemendy, sued as Jane Doe 12	
9	Mariana T. Etchemendy, sued as Jane Doe 11)	
10	EWING, CARMELITA ROSECRANS, sued as	0
11	C.F. Rosecrans and W.S. Rosecrans	91.3
12	Sold to Southern California Water Co.	<u>-91.3</u>
13	EWING, NED, ET AL.	0
14	Successor in part to Isabel J. Granz Estate	6.50
15	Sold to R.A. Watt, Incorporated	<u>-6.50</u>
16	FALCINELLA, OSCAR AND MIKE FALCINELLA	0
17	FIESEL, FRED	0
18	FITTINGER, JAMES L.	0
19	FLESH, LESLIE R. AND ANDOR PASTERNAK ET AL.	0
20	Successors to Alfred D. Seaback and Ruth Seaback	3.5
21	Sold to Stanley C. Lagerlof	<u>-3.5</u>
22	FLETCHER OIL AND REFINING COMPANY,	90.0
23	a corporation (Formerly Fletcher Oil Co., a corporation) composed of D.S. Fletcher, F.O. Fletcher, Helen Fletcher O'Connell and Idaho Fidelity Corpora- tion	86.3
24	Successor to Fletcher, Robert G., et al.	<u>3.7</u>
25		
26		
27	FLETCHER, ROBERT G., DANIEL S. FLETCHER AND WILFRED O. FLETCHER	0
28	Successor to Fred A. Jungquist Sold to Fletcher Oil and Refin- ing Company	3.7 <u>-3.7</u>

	<u>PARTY AND SUCCESSOR, IF ANY</u>	<u>ADJUDICATED RIGHT IN ACRE FEET, ANNUALLY</u>
3	FORD, ROLLA	0.
4	FOX HILLS COUNTRY CLUB	0
5	FRIEDMAN, MARY M. Second West Coast Basin Judgment	0
6		
7	FRIETAS, TONY	0
8	FROGGE, W.J.	12.5
9	Sold to Sigmund S. Hockwold and Lionel S. Hockwold	<u>-12.5</u>
10	FUKUWA, HERBERT SAKAYE (dba Mayflower Nurseries)	0
11		
12	FULLER, A.O. Helene M. Fuller	0
13		
14	FULLILOVE, ROBERT L.	1.0
15	Sold to State of California	<u>-1.0</u>
16	FUJIMOTO, SAMUEL R. AND RAYMOND S. FUJIMOTO	20.0
17	Successor in part to H.J. Early and Daisy Early	20.0
18		
19	FUTURA INDUSTRIES, INCORPORATED Successor to Spanish American Institute	44.4
20		44.4
21	GALDARISI, JOE Brody Investment Company	0
22		
23	GARCIA, AMADOR Eva Garcia	0
24		
25	GARCIA, ARTHUR B. sued as Arthur D. Garcia	0
26	June Garcia	
27	GARCIA, JOSE H.	0
28	GARDENA SYNDICATE NO. 2	0

	<u>PARTY</u> <u>AND SUCCESSOR, IF ANY</u>	<u>ADJUDICATED RIGHT IN</u> <u>ACRE FEET, ANNUALLY</u>
3	GARDENA WATER SUPPLY COMPANY	0
4	GARRETT CORPORATION (THE)	22.5
5	Successor to Shinoda Brothers, Inc. 22.5	
6	GATEX TANK STORAGE TERMINAL CORP.	167.0
7	Successor to Phillips Petroleum Co. 167.0	
8	GAY LAND COMPANY LTD., a corporation	0
9	GEORGIA-PACIFIC CORPORATION	0
10	Successor to Coast Forest Products 3.4	
	sold to Inglewood, City of -3.4	
11	GERAGOSIAN, V.M.	0
12	one Stanley N. Lewis	
13	GERAHUE LAND COMPANY	0
14	Successor and Assignee for A.S.	
	Johnston Drilling Co. 11.9	
15	Abandoned Water Right -11.9	
16	GETTY, GEORGE F., INC.	0
17	GIACIOMAZZI, CAROLINA,	0
18	sued as Mrs. C. Giacomagzi	
19	GIANNI, ALBERT	0
20	GILLINGHAM, AMANDA L.,	0
21	sued as Jane Doe 20	
22	Floyd W. Gillingham, sued as	
	John Doe 24	
23	Josephine Gillingham, sued as	
	Jane Doe 21	
24	GILLINGHAM, FLORENCE R.	2.4
25	Thora Purschè	
	Nellie P. Smith	
26	Anna M. Pursche	
27	GIMINEZ, MATEA (MRS.)	0
28	GODDARD, LALLA D.	0
	Ralf Goddard	

	<u>PARTY</u> <u>AND SUCCESSOR, IF ANY</u>		<u>ADJUDICATED RIGHT IN</u> <u>ACRE FEET, ANNUALLY</u>
3	GOLDSMITH, WM. H. Cliff Ralph		0
5	GONZALEZ, FELIPE Gabriela Gonzales		34.3
7	GOOSSEN, T.B.		0
8	GORDON, WILLIAM W., sued as John Doe Gordon		0
10	GOSS, BERTHA one Property Management Corporation		0
12	GRAND LAND COMPANY Successor in part to Smith, A.H. et al.		0
13	Abandoned Water Rights 1961-62	5.7 <u>-5.7</u>	
15	GRANDE, GEORGE		0
16	GRANT, JOHN (Estate of)		59.0
17	GRANZ, ISABELA J. (Per Judgment) Partitioned to Heirs	380.0	86.0*
18	Isabela J. Granz Estate	-33.8	
19	Joughin Torrance Ranch	-212.42	
20	George R. Murdock	-15.12	
21	Emma J. Osborn	-32.66	
22	Subject to Long Term Lease		
23	Standard Oil Company of Calif.	59.60*	
24	Superior Oil Company	<u>26.40*</u>	
25	GRANZ, ISABELA J. (ESTATE OF) Successor in part to Isabela J. Granz		*
26	Sold in part to Richard Barclay and R.A. Watt	33.80 -13.55	
27	Sold in part to Ned Ewing, et al.	-6.5	
28	Sold in part to R.Watt, Inc.	<u>-13.75</u>	
29	XXX		
30	XXX		

	<u>PARTY</u> <u>AND SUCCESSOR, IF ANY</u>	<u>ADJUDICATED RIGHT IN</u> <u>ACRE FEET, ANNUALLY</u>
1		
2		
3		
4		
5	GREEN, EDWARD I. sued as	0
6	E.J. Green	
7	one Florence D. Green	
8	GRESHAM, PRICE W.	0
9	Walter G. Gresham	
10	Comer J. Lewis	
11	Voleta A. Lewis	
12	GRIFFITH, BEATRICE S.	0
13	W.P. Griffith	
14	one Otto K. Olessen	
15	GRIGGS, B.H.	0
16	Olive W. Griggs	
17	GROSS, JOSEPH M. sued as	0
18	Joseph Gross	
19	Myron J. Glauber, sued as	
20	John Doe 20,	
21	Clarence L. Brown, sued as	
22	John Doe 21, and Perfect	
23	Properties Inc., a corporation	
24	sued as Richard Roe Co. 20.	
25	GUENSER, HENRY M.	0
26	Sophia E. Guenser	
27	GUIDOTTI, DANIEL	0
28	HADLEY, DON C.	0
	one D.W. Sleet	
	one Virgie Sleet	
	HAIGHT, CHARLES N.	0
	one Grace P. Warden	
	HAILS, RAYMOND R.	0

	PARTY AND SUCCESSOR, IF ANY	ADJUDICATED RIGHT IN ACRE FEET, ANNUALLY
1		
2	HAMMOND, WALTER	0
3	one Contractor's Asphalt Products Co.	
4	HANCOCK CHEMICAL COMPANY,	0
5	a corporation	
6	HANSEN, BETTY	0
7	HANSEN, DONALD J. Second West Coast Basin Judgment	
8	HARBOR CITY DEVELOPMENT COMPANY	0
9	HARDING, R.B.	0
10	HARRIS, ROY W.	0
11	HARRIS, R. AND L. HARRIS	0
	Successor to Lawrence I. Liston	0.7
12	Disclaimed Water Right	<u>-0.7</u>
13	HARRIS PUMPING PLANT	0
	Leesa Dombrowski	
14	Carl G. Pursche	
	Anna M. Pursche	
15	Harry Krundick	
	Anna Doherty	
16	Mrs. Frank Cota	
	Holly Corporation, a corporation	
17	Homer Bales and Ernest Haughton	
	dba and sued as Pursche Water Co.	
18		
19	HARRIS TUBE INCORPORATED	0
	Successor in part to B. Robinson	
20	& Associates	0.7
	Transferred to Automation Ind.	
21	Inc.-Harris Tube	<u>-0.7</u>
22	HASEGAWA, W.	0
	one Kauffman, Milton, Construction	
23	Company, successor	
24	HASKINS, C.R.	0
25	HATFIELD, BESSIE M.	0
	Second West Coast Basin Judgment	
26		
27	HAUT, FRED M.	0
	one Ivy H. Haut	
28		
	HAWTHORNE, CITY OF	1882.0

	<u>PARTY</u> <u>AND SUCCESSOR, IF ANY</u>		<u>ADJUDICATED RIGHT IN</u> <u>ACRE FEET, ANNUALLY</u>
3	HAYES, CHARLES R.		0
4	one Robert W. Colby		
	one Fern M. Colby		
5	HAYES FURNACE MFG. & SUPPLY		0
6	Second West Coast Basin Judgment		
7	HENDERSON, BEATRICE, M.	1.3	0
8	Abandoned Water Right	<u>-1.3</u>	
9	HEREDIA, DAVID P.		0
10	HERMAN, E.N.		0
11	HERMANSEN, JULIA		0
12	HERRBECK, MIKE L.		0
13	Second West Coast Basin Judgment		
14	HERZOG, AUGUST		0
15	one Martha Herzog		
16	HEYDENBECK, JEANETTE R.		0
	(Formerly Jeanette R. Reifsnyder)	0.7	
17	Sold to Dominguez Water Corp.	<u>-0.7</u>	
18	HILLSIDE MEMORIAL PARK	16.7	68.7
19	Successor to Sigmund S. Hockwald		
	and Lionel S. Hockwald	12.5	
20	Successor to W.J. Frogge		
	Successor to Santa Fe Land		
21	Improvement Company	<u>39.5</u>	
22	HILYARD, MARY N. sued as Jane		0
	Doe 55		
23	Mrs. Monta Templeton, sued as		
24	Jane Doe 56		
25	HIMMELFARB, HENRY		0
	Wm. Pirk		
26	one Western Air Compressor Company		
27	HOCKWALD, SIGMOND S. AND LIONEL S.		0
	HOCKWALD		
28	Successor to W.J. Frogge	12.5	
	Second West Coast Basin Judgment		
	Sold to Hillside Memorial Park	<u>-12.5</u>	

	<u>PARTY</u> <u>AND SUCCESSOR, IF ANY</u>		<u>ADJUDICATED RIGHT IN</u> <u>ACRE FEET, ANNUALLY</u>
3	HODNEFIELD, T.E		0
4	HOFFMAN, MARIE C.		0
5	Los Angeles City School District, successor		
6	HOEPTNER, J.P.		0
7	Ida B. Hoeptner		
8	one Jack I. Gantz		
	One Lillian H. Gantz		
9	HOLLIDAY, CLIFFORD		0
10	HOLLINGSWORTH, W.I.		0
11	one Julius L. Jenkins		
	one Evelyn M. Jenkins		
12	HOLLYWOOD TURF CLUB, a corporation		282.0
13	HONSTA, WILBUR	14.1	0
14	Sold to Jake Engelsma	<u>-14.1</u>	
15	HUBER, FRANK S.		0
16	Second West Coast Basin Judgment		
17	HUDSON, C.L.		0
18	HUNT, DONALD G.		0
19	Successor to James Scanda	1.9	
	Sold to Kenichi Inose	<u>-1.9</u>	
20	HURT, ARTHUR C.		0
21	one Truman Enterprises, Inc.		
22	INDUSTRIAL CHEMICAL DIVISION, ALLIED		255.0
23	CHEMICAL CORP.		
24	(Formerly Allied Chemical Corp. Gen. Chemical Co.)		
25	INGLEWOOD, CITY OF	4382.0	4405.49
26	Successor to Frank Abell	1.8	
	Successor to Boise Cascade		
	Building Co.	16.92	
27	Successor to Georgia-Pacific Corp.	3.4	
28	Successor in part to George R. Murdock	<u>1.37</u>	

PARTY
AND SUCCESSOR, IF ANY

ADJUDICATED RIGHT IN
ACRE FEET, ANNUALLY

1			
2	INGLEWOOD PARK CEMETERY ASSOCIATION,		0
3	a corporation, sued as Inglewood		
	Park Mortuary Assoc.		
4	INOSE, YOSHI		0
5	one Seijiro Inose		
6	INOSE, KENICHI		5.4
	Successor to Donald G. Hunt	1.9	
7	Successor to Thaxter Ralph and		
	Lois A. Lenoir	<u>3.5</u>	
8			
9	IRVINE, F.C.		0
10	ISAMU, KASUO AND YOSHIKI R. KITA		0
	Successor to Lathrop M. Ellinwood	32.6	
11	Sold to Don Wilson Builders	<u>-32.6</u>	
12	ISHIDA, HENRY J.		0
13	Second West Coast Basin Judgment		
14	ITO, CHIYEKO		0
	Second West Coast Basin Judgment		
15	IWATA, FRED		0
16	John Iwata		
17	J.B. D. HOLDING CORP., a corporation		0
18	JENKINS, HARRY C.		0
	Successor to H.L. Perry	1.8	
19	Sold to ABC Nursery, Incorporated	<u>-1.8</u>	
20	JOHNS-MANVILLE PRODUCTS CORPORATION		881.0
21	JOHNSON, C.F.	12.2	0
22	sold to Kaoru Wada and Satoru Wada	<u>-12.2</u>	
23	JOHNSTON, A.S. DRILLING COMPANY	11.9	0
24	Assigned to Gerahue Land Company	<u>-11.9</u>	
25	JOHNSON, O.T. CORPORATION		0
26	A.P. Johnson Company sued as		
	Richard Roe Company one		
27	JONES, ANNA MAE, successor to	50.2	0
28	Anne Taylor, deceased (sued		
	herein as Anna Taylor)		
	Sold to City of Torrance	<u>-50.2</u>	

	<u>PARTY</u> <u>AND SUCCESSOR, IF ANY</u>	<u>ADJUDICATED RIGHT IN</u> <u>ACRE FEET, ANNUALLY</u>
3	JONES, E.F.	0
4	JONES, W.H.	0
5	one Leon A. Carpenter and Darline N. Carpenter, successors	
6	JOSHUA-HENDY IRON WORKS	0
7	JOUGHIN TORRANCE RANCH	0
8	Successor in part to Isabela J. Granz	212.47
9	Sold in part to Barclay Hollander Curci, Inc.	-3.33
10	Sold in part to Boise Cascade Building Co.	-16.92
11	Sold in part to Cameron Collister	-136.82
	Sold in part to R.A. Watt, Inc.	<u>-56.35</u>
12	JUNGQUIST, FRED A.	0
13	(Formerly Katherine P. Woodman Jungquist)	3.7
14	Sold to Robert G. Fletcher, Daniel S. Fletcher and Wilfred O. Fletcher	<u>-3.7</u>
15	KAHLER, DORA A.	0
16	KAHLERT, ET AL.	0
17	Successor in part to Kelly Pipe Co.	18.9
18	Sold to Sparkletts Drinking Water Corp.	<u>-18.9</u>
19	KARR, OSCAR E.	0
20	Sherley Karr	
21	KEHN, CHESTER L.	0
22	K.L. KELLOGG & SONS, a corporation	0
23	KELLY PIPE COMPANY	49.0
24	Sold in part to State of California	-16.3
25	Sold in part to Kahlert, et al	-18.9
	Sold in part to Sparkletts Water Corp.	<u>-13.8</u>
26	KELTON, LOUIS	0
27	KETTLER AND WILSEY, INC.	0
28	Second West Coast Basin Judgment	

	<u>PARTY</u> <u>AND SUCCESSOR, IF ANY</u>		<u>ADJUDICATED RIGHT IN</u> <u>ACRE FEET, ANNUALLY</u>
3	KILLINGER, W.G. one Esther N. Lee		0
5	KINCAID, JEANETTE B. one Fred F. Hoyt one Yvonne A. Hoyt		0
7	KING, MAXWELL C.		0
8	KING, SARAH S. one Crawford Building Corporation		0
10	KITA, ISAMU, KAYUO KITA, AND YOSHIKI R. KITA Successor to Lathrop M. Ellinwood Sold to Don Wilson Builders	32.6 -32.6	0
12	KRAUSS, JOHN Dan E. Vail and Barbara M. Vail		0
14	KULL, CHARLES		0
15	KURTZ, GLADYS Sold to Sparkletts Drinking Water Corp.	3.5 -3.5	0
17	LAGERLOF, STANLEY C. Successor to Leslie R. Flesh and Andor Pasternak, et al.	3.5	3.5
19	LAMPO, JOHN		0
20	LARSEN, MAGNUS C. sued as M. Larsen		0
22	LAUTRUP, NELS		0
23	LAWLER, JAMES K. (Estate of) Sold to B. Robinson and Associates	3.1 -3.1	0
25	LAWNDALE (CITY) SCHOOL DISTRICT OF LOS ANGELES COUNTY, sued as Richard Roe Company 12		0
27	LEACH, ANNA		0
28	LEONARDO, JOE		0

	<u>PARTY AND SUCCESSOR, IF ANY</u>	<u>ADJUDICATED RIGHT IN ACRE FEET, ANNUALLY</u>
3	LERMENS, EVELYN (Formerly Alfred Lermens)	0.7
5	LENZINER, EMMA L. sued as Mrs. E.L. Leuziner	1.4
7	LINDERMAN, ABRAHAM Second West Coast Basin Judgment	0
9	LISTON, LAWRENCE Sold to R. Harris and L. Harris	0.7 <u>-0.7</u>
11	LITTLE, WILLIAM Sold to Watt Industrial Properties	0.1 <u>-0.1</u>
13	LIZZA, PAT	0
14	LOCHMAN, ERNEST C. LOCHMAN, WALTER	0
15	Second West Coast Basin Judgment	
16	LONG, BEN Persilla Long, sued as Pricilla Long	0
18	LONG, JOHN	0
19	LONG BEACH, CITY OF	0.7
20	LOPEZ, FRANK	3.7
21	LOPEZ, MANUEL one Rudolph E. Lopez	0
23	LOS ANGELES, CITY OF	1503.0
24	LOS ANGELES CITY SCHOOL DISTRICT	0
25	LOS ANGELES COUNTY (ALONDRA PARK) Successor to Los Angeles	28.7 67.7
26	County Flood Control District	<u>39.0</u>
27	LOS ANGELES COUNTY FLOOD CONTROL DISTRICT	37.6 0
28	Successor in part to A.H. Smith et al Sold to Los Angeles County- Alondra Park	1.4 <u>-39.0</u>

	<u>PARTY</u> <u>AND SUCCESSOR, IF ANY</u>	<u>ADJUDICATED RIGHT IN</u> <u>ACRE FEET, ANNUALLY</u>
3	LOS ANGELES COUNTY SANITATION DISTRICT	102.0
4	No. 2, sued as Los Angeles County Sanitary District No. 2	
5	LOS ANGELES COUNTY WATER WORKS	0
6	DISTRICT NO. 1	
7	LOS ANGELES COUNTY WATER WORKS	1352.0
8	DISTRICT NO. 13	
9	LOS ANGELES COUNTY WATER WORKS	551.0
10	DISTRICT NO. 22	
11	LOS ANGELES COUNTY (WESTERN AVENUE GOLF COURSE)	296.0
12	Second West Coast Basin Judgment	
13	listed as Board of Retirement of the	
14	Los Angeles County Employee's Retirement System	
15	LOS ANGELES EXTENSION COMPANY	0
16	LOS ANGELES INVESTMENT COMPANY	0
17	LOS NIETOS COMPANY, a corporation	0
18	LOYOLA UNIVERSITY FOUNDATION	0
19	LOYOLA MARYMOUNT UNIVERSITY	48.1
20	(Formerly Loyola University of Los Angeles)	
21	MAC LEAN, LORENA	0
22	one Torrance Land Company	
23	MADRIGAL, PETE	0
24	MAGALLANES, S.W.	0
25	MANCHESTER AVENUE COMPANY, a corporation	0
26	one Inglewood Golf Course, a partnership	
27	MANHATTAN BEACH, CITY OF	1131.2
28	MARCH, H.C.	0
	one Victory Oil Company	

	<u>PARTY</u> <u>AND SUCCESSOR, IF ANY</u>	<u>ADJUDICATED RIGHT IN</u> <u>ACRE FEET, ANNUALLY</u>
3	MARTIN BROTHERS BOX CO. OF CALIF. Second West Coast Basin Judgment	- 0
5	MARTIN, EARL Second West Coast Basin Judgment	0
7	MARTIN, P.T. one Arlington Garden Homes Company	0
9	MARTZ, HOWARD DOUGLAS James L. Martz Louise H. Martz	0
11	MATSON, RAY F. sued as R.F. Matson Florence M. Nielsen	0
13	MAU, FRED	0
14	MAYFLOWER NURSERIES (See also under Herbert Sakaye Fukuwai)	0
16	McCANDLESS, JAMES Sold to Sparkletts Drinking Water Corp.	6.7 -6.7
18	McCLAIN, ETHEL	0
19	McCRACKIN, G.A. sued as G.A. McCracken	0
21	McDONNELL DOUGLAS CORPORATION (Formerly Douglas Aircraft Company, Inc.) Long Term Lease from U.S. Navy Dept.	1.7*
24	McCULLEY, M.F.	0
25	McGRANAGHAN, J.J.	0
26	McKERNON, IVAN J. one Doris E. Parks one L. Kenneth Parks	0

	<u>PARTY</u> <u>AND SUCCESSOR, IF ANY</u>	<u>ADJUDICATED RIGHT IN</u> <u>ACRE FEET, ANNUALLY</u>
3	MEANS, AIMEE R. one Prarie Company	0
5	MESPLOU, PAUL	0
6	METZLER, J.J. one Kenji Yokoyama and one Miyeko Yokoyama	0
8	MILBURN, E.B. one M.Y. Yamane	0
10	MILLER, CARL H.	0
11	MINNEAPOLIS-HONEYWELL REGULATOR COMPANY, APPLIANCE CONTROLS DIVISION	0
13	MISHIMA, YSABURO and SATSUKI MISHIMA Hugh N. Cameron	0
15	MOBIL OIL CORPORATION (Formerly Socony Mobil Oil Company)	2570.0
17	MOEN, O.	0
18	MOLINE, P.E.	0
19	MONETA MUTUAL WATER COMPANY	916.0
20	Sold to City of Torrance	<u>-916.0</u>
21	MONIZ, JOE JR., sued as Joe Moniz one Rose Moniz	2.2
22	Sold to State of California	<u>-2.2</u>
23	MOODY, B.R. one Opal B. Edwards	0
25	MOORE, J.B.	0
26	MOORE, MAMIE S.	0
27	MORAN, RONALD F. Successor in part to CBS, Inc.	9.0
28	Sold to City of Torrance	<u>-9.0</u>

	<u>PARTY</u> <u>AND SUCCESSOR, IF ANY</u>		<u>ADJUDICATED RIGHT IN</u> <u>ACRE FEET, ANNUALLY</u>
1			
2			
3	MORI, ROY H. AND KENJI MORI		3.60
	Second West Coast Basin Judgment	5.60	
4	Sold to Nozaki, Sumikichi	<u>-2.00</u>	
5	MORRISON, ALICE		0
	Ethel Morrison		
6			
7	MORSE, A.H.		0
	one J.J. Lapidus		
8	one B.C. Investment Co., Inc.		
9	MORTON, HAROLD C. sued as		0
	Harold Morton		
10	one Allied Gardens Corporation		
11	MOTT, V.G.		0
12	MUELLER, ARNOLD W.		0
	Ruth Mueller		
13			
14	MURDOCK, GEORGE R.		0
	Successor in part to Isabela J.		
15	Granz Estate	15.12	
	Sold in part to R. Barclay and		
16	R.A. Watt	-13.75	
	Sold in part to City of Inglewood	<u>- 1.37</u>	
17			
18	MURAKAMI, JAMES		0
	Murakami, Jean M.		
19	Second West Coast Basin Judgment		
20	NAGAO, SUMIYE		0
21	NAKAMURA, HIROSHIMA		0
22	NAKANO, KIKUNO	19.3	0
	Ben Nakano		
23	George Nakano		
	Helen Nakano		
24	Kan Nakano		
	Mary Nakano		
25	Taka Nakano		
	Misao Nakano Nakashima		
26	Sold to Dominguez Water Corp.	<u>-19.3</u>	
27	NARBONNE RANCH WATER CO. NO. 2		0
28	NARBONNE RANCH WATER CO. NO. 3		0

	<u>PARTY AND SUCCESSOR, IF ANY</u>	<u>ADJUDICATED RIGHT IN ACRE FEET, ANNUALLY</u>
3	NATIONAL ELECTRIC PRODUCTS CORP.	0
4	NATIONAL ROYALTIES, INC., a corporation	0
5	NAVARRO, T.C. 53.9	0
6	Sold to Hilario S. Alwag and Emma Alwag -53.9	
7	NELSON, A.L.	0
8	Olaf Nelson one George C. Orr	
9	NEWELL, CALVIN	0
10	Newell, Linda Second West Coast Basin Judgment	
11	NICKEL, EDWARD	0
12	NICKEN, HENRY W. sued as	0
13	H.W. Nielsen one Kenneth D. Durian	
14	NORAIR, A DIVISION OF NORTHROP AIRCRAFT, INCORPORATED	38.15
15		
16	NORMANDIE PARK	0
17	Successor to Collister, Cameron 136.82 Sold to City of Torrance -136.82	
18	NORMINGTON, J.E.	0
19	NORRIS, HAZEL F.	0
20	Second West Coast Basin Judgment	
21	NORTH AMERICAN AVIATION, INC., a corporation	0
22		
23	NOZAKI, SUMIKICHI	7.00
24	Successor in part to Mori, Roy H. and Kenji Mori 2.0	
25	Successor in part to United California Bank 5.0	
26	OGLE, WARREN J.	0
27	ORESKOVICH, JACK	0
28	Harold Walsh one Harold D. Walsh one Marie L. Walsh	

	<u>PARTY</u> <u>AND SUCCESSOR, IF ANY</u>		<u>ADJUDICATED RIGHT IN</u> <u>ACRE FEET, ANNUALLY</u>
3	OSBORN, EMMA J.		0
4	Successor in part to Isabela J. Granz Estate	32.66	
5	Sold to R. Barclay and R.A. Watt	<u>-32.66</u>	
6	OTANI, CHISATO, sued as John Doe 57		0
7	PACIFIC CREST CEMETERY COMPANY, INC.	17.7	39.4
8	Successor to H.S. Scott	9.5	
9	Successor to Wada, Kaoru and Satoru Wada	<u>12.2</u>	
10	PACIFIC ELECTRIC RAILWAY COMPANY		0
11	PACIFIC WESTERN OIL CORPORATION, a corporation		0
12			
13	PALISADES DEL REY WATER COMPANY (Included in City of Los Angeles)		0
14			
15	PALMER, E.		0
16	PALOS VERDES BEGONIA FARM		0
17	Successor to Gus A. Bauman		
18	PALOS VERDES WATER COMPANY, a corporation	999.0	0
19	Sold to California Water Service Co.	<u>-999.0</u>	
20			
21	PARCELL, G.L. AND MARGARET PARCELL one Rosie L. Kent		0
22			
23	PARK WATER COMPANY		160.0
24	PARKE, MRS. ZORAIDA	1.8	0
25	Sold to H.L. Perry	<u>-1.8</u>	
26	PASCHKE, WM. JOSEPH	.02	0
27	Abandoned Water Right	<u>-.02</u>	
28			

	PARTY AND SUCCESSOR, IF ANY	ADJUDICATED RIGHT IN ACRE FEET, ANNUALLY
1		
2		
3	PATTERSON, ROY	0
4	PAULIC, JOHN	0
5	one John W. Taylor	
6	PEREZ, DAVID	0
7	Apuleyo Villagomez, sued as A. Villagomez	
8	PERRY, H.L.	0
9	Successor to Zoraida Parke	1.8
10	Sold to Harry C. Jenkins	<u>-1.8</u>
11	PERRY SCHOOL DISTRICT OF LOS ANGELES COUNTY	0
12		
13	PETERSON, WM. C.	0
14	PHILLEO, A.E.	0
15	PHILLIPS PETROLEUM CO.	0
16	(Formerly Tidewater Oil Co.)	167.0
17	Sold to Gatex Tank Storage Term. Corp.	<u>-167.0</u>
18	PIONEER DRILLING COMPANY, a corporation	0
19	one Southern Heater Corp.	
20	PITTS, EDWARD A.	0
21	one Clarence E. Harrison	
22	one Martha E. Harrison	
23	PLUNKETT, F.D.	0
24	Second West Coast Basin Judgment	
25	POPSON, JOHN S.	0
26	Second West Coast Basin Judgment	
27	PRICE, FRANK X.	0
28	PRODUCING PROPERTIES, INC.	0
	Second West Coast Basin Judgment	

	PARTY AND SUCCESSORS, IF ANY	ADJUDICATED RIGHT IN ACRE FEET, ANNUALLY
3	PURSCHE, CAROL G. AND CARL P. PURSCHE dba Pursche Pumping Plant	0
4	Carl G. Pursche	
5	Thora Pursche	
6	Anna M. Pursche one Guarantee Development Co.	
7	QUANDT, CHARLES H. sued as CHARLES A. QUANDT	0
9	QUINN, RICHARD Martha Quinn	0
11	RAMOS, JOE B.	0
12	RANCHO MUTUAL WATER COMPANY	0
13	RAVEN, J.K. one Andrea S. Teran	0
15	REED, ELIZABETH E. sued and formerly known as Elizabeth Edna Baker and Josephine Eilers for whom Dominguez Estate Company has been substituted	0
18	REHOR, FRANK one Josephine P. Rehor	2.2
20	REID, LUCILLE G. Ogden G. Reid	0
22	REIFSNYDER, JEANETTE R., also known as Jeanette Avant, and also known as Jeanette R. Heydenbeck	0
24	Calvin Wilson Edward E. Wilson, Jr. Harry R. Wilson	
25	Harry R. Wilson and Jeanette Reifsnyder, also known as Jeanette Avant, as executors of the estate of Jeanette C. Wilson, deceased.	
26	Harry R. Wilson and Jeanette Reifsnyder, also known as Jeanette Avant, as executors of the estate of Robert A. Wilson, deceased	
27	(Now known as Jeanette R. Heydenbeck See Heydenbeck, Jeanette R.	

	PARTY AND SUCCESSOR, IF ANY	ADJUDICATED RIGHT IN ACRE FEET, ANNUALLY
3	REPUBLIC PETROLEUM COMPANY	0
4	RICHARD, LEONCIE, devisee of Anna	0
5	Richard, deceased, and Edward	
	Richard, sued as John Doe Richard	
6	RICHARDSON, ROSE A. AND WM. T.	0
7	RICHARDSON	
	one South Normandie Manor, Inc.	
8	RICHFIELD OIL CORPORATION	0
9	(now known as Atlantic Richfield Co.)	
10	RING OIL COMPANY	0
11	ROBINSON, B. AND ASSOCIATES	0
	Successor to James K. Lawler	3.1
12	Sold in part to Harris Tube Inc.	-0.7
	Sold in part to Southern Calif-	
13	Water Company	<u>-2.4</u>
14	ROCKWELL, MICHAEL L.	0
	Successor to Bank of America	
15	NT & SA (Trust B1-51)	0.1
16	Sold to Little, William	<u>-0.1</u>
17	RODRIGUEZ, FLAVIO	6.1
	Sold to State of California	-4.0
18	Abandoned Water Right	<u>-2.1</u>
19	ROMAN CATHOLIC ARCHBISHOP OF LOS	72.3
20	ANGELES (THE), a corporation, sued	
	as Holy Cross Cemetery	
21	ROOSEVELT MEMORIAL PARK ASSOCIATION	0
22	ROSE, R.E.	0
23	Clara M. Rose, sued as Jane Doe 8	
24	ROSSER, L.D.	0
25	ROYAL MUTUAL WATER COMPANY, a corporation	0
26	one Delmer D. Kern	
27	RUDD, HOMER E.	0
28	one Kiyor Ide	

	<u>PARTY</u> <u>AND SUCCESSOR, IF ANY</u>		<u>ADJUDICATED RIGHT IN</u> <u>ACRE FEET, ANNUALLY</u>
1			
2			
3	RUFFNER CORPORATION		0
4	Successor to Louis M. Sepulveda	0.7	
5	Abandoned Water Right	<u>-0.7</u>	
6	RUSS, F.J.		0
7	one Ted Shpall		
8	one Sam H. Shpall		
9	RYAN AERONAUTICAL COMPANY,		0
10	a corporation	20.2	
11	Sold to Southern California		
12	Water Co.	<u>-20.2</u>	
13	SANDOVAL, YGNACIO		0
14	SAHM, ALBERT J.		0
15	Second West Coast Basin Judgment		
16	SANGER, C.W.		0
17	One Gardena Valley Homes, Inc.		
18	SANTA FE LAND IMPROVEMENT COMPANY	39.5	0
19	Sold to Hillside Memorial Park	<u>-39.5</u>	
20	SCANDA, JAMES sued as		0
21	James Scander	1.9	
22	George Nasim		
23	Sold to Donald G. Hunt	<u>-1.9</u>	
24	SCHENK, FLOYD H., JR.		0
25	Cora A. Schenk		
26	SCHLAEGEL, KEITH W.	13.6	0
27	Opal B. Schlaegel		
28	Sold to Sidney R. Title and		
	Charlotte W. Title	<u>-13.6</u>	
	SCHLAEGETER, EDYTHE L.		0
	one James Murakami		

	<u>PARTY AND SUCCESSOR, IF ANY</u>	<u>ADJUDICATED RIGHT IN ACRE FEET, ANNUALLY</u>
3	SCHRECKENGAST, C.	0
4	SCHULTZ, W.C.	0
5	SCOTT, H.S.	0
6	Successor to W.F. Burke and Lois Price	9.5
7	Quitclaimed to Pacific Crest Cemetery Co.	<u>-9.5</u>
8		
9	SEABACK, ALFRED D. AND RUTH SEABACK	3.5
10	Sold to Leslie R. Flesh. and Andor Pasternak, et al.	<u>-3.5</u>
11		
12	SELOVER, MARVIN AND MARY ZWEITER	0
13	one Hitoshi Fujii one Toshije Fujii	
14	SENTOUS HOLDING COMPANY	0
15	SEPULVEDA, L.M.	0
16	SEPULVEDA, LOUIS M. AND SECURITY-FIRST	0.7
17	NATIONAL BANK, as Trustees under the last will and testament of Roman D. Sepulveda, deceased.	
18	Acquired by Ruffner Corporation	<u>-0.7</u>
19	SERVIAN, P.C.	0
20	Ruby H. Renfro	
21	SEWARD, W.H.	0
22	one R.A. Watt Construction Co.	
23	SHAW, JOHN	0
24	Phillip G. Shaw	
25	SHEETS, CLYDE L.	0
26	Esther M. Sheets (see Dennis, Esther M. Sheets)	
27	SHELL OIL COMPANY	4516.0
28	SHEPARD, CHARLES W.	0
	Second West Coast Basin Judgment	

	<u>PARTY AND SUCCESSOR, IF ANY</u>	<u>ADJUDICATED RIGHT IN ACRE FEET, ANNUALLY</u>
3	SHEPHERD, J.M.	0
4	SHIPMAN, JAMES W.	0
5	one Osie R. Shipman	
6	SHINODA BROTHERS, INCORPORATED	0
7	San Lorenzo Nursery Company	
7	Second West Coast Basin Judgment	22.5
8	Sold to Garrett Corporation (The), et al	<u>-22.5</u>
9		
10	SHORT, SAM, sued as Sam Sciortino	0
11	SHURTLEFF, ELDON B.	0
12	Marcelle Shurtleff	
12	one Barrett Development Corporation	
13		
14	SIDEBOTHAM, EDWARD ROY AND EDWARD	0
15	SIDEBOTHAM & SON., INC., sued as	
15	Edward Sidebotham	
16	SILVA, MRS. MARY	0
17	one Norman A. Leiman	
18	SIMMONS, E.E.	0
19	Second West Coast Basin Judgment	
20	SLOAN, JAMES	0
21	SMITH, A.H.	0
22	Sam Surber and Freda Smith,	9.7
22	sued as Jane Doe	9
23	Sold in part to the State of Calif.	-2.6
23	Sold in part to Grand Land Company	-5.7
24	Sold in part to L.A. County Flood Control District	<u>-1.4</u>
25	SMITH, EUNICE P.	0
26	SOCONY MOBIL OIL COMPANY, INC.	0
27	(Successor by Merger to General Petroleum Corporation)	
28	(See Mobil Oil Corporation)	

	<u>PARTY</u> <u>AND SUCCESSOR, IF ANY</u>		<u>ADJUDICATED RIGHT IN</u> <u>ACRE FEET, ANNUALLY</u>
1			
2	SOUTH BAY UNION HIGH SCHOOL OF LOS		0
3	ANGELES COUNTY, sued as Redondo Union		
4	High School District		
5	SOUTHERN CALIFORNIA ASSOCIATION OF		0
6	SEVENTH DAY ADVENTIST		
7	Second West Coast Basin Judgment		
8	SOUTHERN CALIFORNIA EDISON COMPANY	10.4	57.1
9	Successor to Associated Southern		
10	Investment Co.	<u>46.7</u>	
11	SOUTHERN CALIFORNIA WATER COMPANY	6265.3	6548.64
12	Successor to Carmelita Rosecrans		
13	Ewing	91.3	
14	Successor to Ryan Aeronautical		
15	Company	20.2	
16	Successor to Southern Pacific		
17	Company	166.0	
18	Successor in part to Owen W.		
19	Curtis	3.44	
20	Successor in part to B.		
21	Robinson & Associates	<u>2.4</u>	
22	SOUTHERN PACIFIC COMPANY, sued as	166.0	0
23	Southern Pacific Railroad Co.		
24	Sold to So. California Water Co.	<u>-166.0</u>	
25	SOUTHWEST PROPERTIES, INC.,		0
26	a corporation		
27	SOUTHWEST STEEL ROLLING MILLS		0
28	Successor to A.K. Wilson Lumber Co.	3.4	
29	Sold to Coast Forest Products	<u>-3.4</u>	
30			
31	SOUTHWESTERN PORTLAND CEMENT COMPANY,	15.0	0
32	a corporation		
33	Sold to Chandler's Palos Verdes		
34	Sand and Gravel Corp.	<u>-15.0</u>	
35			
36	SPANISH-AMERICAN INSTITUTE	44.4	0
37	Sold to Futura Industries, Inc.	<u>-44.4</u>	

	<u>PARTY</u> <u>AND SUCCESSOR, IF ANY</u>	<u>ADJUDICATED RIGHT IN</u> <u>ACRE FEET, ANNUALLY</u>
3	SPARKLETTS DRINKING WATER CORPORATION	152.6
	Successor to Gladys Kurtz	3.5
4	Successor to James McCandless	6.7
	Successor to Kahlert, et al.	18.9
5	Successor to Rembert C.	
	Anderson, et al,	80.5
6	Successor to State of California	26.1
	Successor to Wechsler, B.A.	3.1
7	Successor in part to Kelly	
	Pipe Company	<u>13.8</u>
8		
9	STANDARD OIL COMPANY OF CALIFORNIA	0
10	(See Chevron U.S.A., Inc.)	
11	STAUFFER CHEMICAL COMPANY	521.0
12	STEPHENSON, E.R. sued as	0
	E.R. Stevenson	
13	L.F. Stephenson	
14	STEWART, MRS. A.V.	0
15		
16	STRUBLE, CLYDE C.	0
	one Ames L. Avers	
17	one Clara Avers	
18	SUNSET OIL COMPANY, a corporation	0
19	SUPERIOR OIL COMPANY (THE)	0
20	SUTHERLAND, LOUISE A., sued as	0
21	Bertha L. Sutherland	
22	SWICK, PEGGY	5.5
	Sold to Hilario Alwag and	
23	Emma Alwag	<u>-5.5</u>
24		
25	TAIX, MARIE D.	0
	Edith T. Virole, sued as	
26	Edith T. Violi	
27	TAMURA, TAKATOSHI	0
28	one State of California, successor	

	<u>PARTY</u> <u>AND SUCCESSOR, IF ANY</u>	<u>ADJUDICATED RIGHT IN</u> <u>ACRE FEET, ANNUALLY</u>
1		
2		
3	TANAKA, GEORGE	0
4	Reiko Tanaka	
5	one Susumu Katsuda	
6		
7	TAYLOR AUTO TRANSPORT	0
8	Second West Coast Basin Judgment	
9		
10	TEMPLETON, J.A.	0
11		
12	TERRY, RUBY	0
13	one Reldon G. Pinney and	
14	one Nellie B. Pinney	
15		
16	TEXACO INC. (formerly	3432.0
17	The Texas Company)	
18		
19	THAXTER, RALPH, sued as	0
20	R.F. Thaxter and Lois A. Lenoir	3.5
21	Sold to Kenichi Inose	<u>-3.5</u>
22		
23	THORSON HOMES, INC., a corporation	0
24	J.B. Investment Company, a corporation	
25	Anaheim Construction Company, a	
26	corporation	
27		
28	TIDEWATER OIL CO., sued as	0
29	Tide-Water Associated Oil Company	
30	(See Phillips Petroleum Company)	
31		
32	TITLE, SIDNEY R. AND CHARLOTTE W.	0
33	TITLE	
34	Successor to Keith W. and Opal B.	
35	Schlaegel	13.6
36	Sold to ABC Nursery, Inc.	<u>-13.6</u>
37		
38	TORINO, JOSEPH	0
39	Second West Coast Basin Judgment	
40		
41		
42	XXX	
43	XXX	
44	XXX	
45	XXX	

	PARTY AND SUCCESSOR, IF ANY	ADJUDICATED RIGHT IN ACRE FEET, ANNUALLY
3	TORRANCE, CITY OF	2519.0
4	Successor to Alcast Foundry, et al.	7.2
5	Successor to Richard Barclay and R.A. Watt	59.96
6	Successor to Belvidere Mutual Water Company	33.4
7	Successor to Anna Mae Jones	50.2
8	Successor to Moneta Water Company	916.0
9	Successor to Ronald E. Moran	9.0
10	Successor to Normandie Park	136.82
11	Successor to Torrance Unified School District	59.4
12	Successor to R.A. Watt, Inc.	<u>13.75</u>
13	TORRANCE SAND AND GRAVEL CORPORATION	0
14	Successor to Weston Investment Co.	184.0
15	Sold to Chandler's Palos Verdes Sand-Gravel Corp.	<u>-184.0</u>
16	TORRANCE UNIFIED SCHOOL DISTRICT	0
17	Successor to Hilario S. Alwag and Emma Alwag	59.4
18	Sold to City of Torrance	<u>-59.4</u>
19	TOY, YING	0
20	TRAUB, ALBERT A.	0
21	Jane P. Traub	
22	one Baron Traub	
23	TRIMBLE, CLYFF A.	0
24	one Mary E. Trimble	
25	TUNE, MATES, ET AL.	0
26	Successor to Josephine Watkinson	3.1
27	Sold to B.A. Wechsler	<u>-3.1</u>
28	TURNER, OSCAR E.	0
29	one Elizabeth Miller Kolf	
30	UCHINO, BRUCE	0
31	UCHINO, SAKIYO	
32	Second West Coast Basin Judgment	

	<u>PARTY AND SUCCESSOR, IF ANY</u>	<u>ADJUDICATED RIGHT IN ACRE FEET, ANNUALLY</u>
3	UEDA, ALICE M. Second West Coast Basin Judgment	0
5	UNION NURSERY, INCORPORATED Second West Coast Basin Judgment	4.7
7	UNION OIL COMPANY OF CALIFORNIA	2670.0
8	UNION PACIFIC RAILROAD COMPANY Second West Coast Basin Judgment	0
9		0
10	UNITED CALIFORNIA BANK Successor to Ballman, Rosemary N. 7.0 Sold to ABC Nursery, Inc. -2.0 Sold to Nozaki, Sumikichi -5.0	
12	UNITED STATES NAVY DEPARTMENT Transferred from Aluminum Company of America 1.7 *Long Term Lease to McDonnell Douglas Corp. -1.7	*
16	UNITED STATES STEEL CORPORATION Columbia-Geneva Steel Div., successor by merger to Columbia Steel Company	1791.0
18	UNIVERSAL-CONSOLIDATED OIL COMPANY, a corporation	0
20	URBIE, JOSE	0
21	USSERY, ANNA MAE AND LAWRENCE USSERY one Mike L. Herrback one Rae Herrback	0
23	VALDEZ, HENRY	0
24	VAN VLIET, A. one Jake Zwaagstra and one Jessie M. Zwaagstra	0
26	VAN CAMP SEA FOOD COMPANY	0
27	VERBURG, WILLIAMS, sued as Menlo Verburg and Clara B. Verburg 6.7 Sold to ABC Nursery, Inc. -6.7	0

	<u>PARTY AND SUCCESSOR, IF ANY</u>		<u>ADJUDICATED RIGHT IN ACRE FEET, ANNUALLY</u>
3	VETTER, MARY		0
4	VILLAGOMEZ, ENRIQUE, A. Ysabel F. Villagomez		0
6	VOLLMER, FRANK J.		0
7	WADA, KARU AND SATORU WADA		0
8	Transferred from C.F. Johnson	12.2	
9	Sold to Pacific Crest Cemetery Company	<u>-12.2</u>	
10	WAGNER, EDWIN E.		0
11	WAGNER, J.F. one Orville N. Crafts		0
13	WAGNER, JOSEPH F.		0
14	WAIT, E.J.		0
15	WALKER, PAUL E. Second West Coast Basin Judgment		0
17	WARD, EARL C.		0
18	WARNER, DANIEL E.		0
19	WATKINSON, JOSEPHINE	3.1	0
20	Sold to Mates Tune, et al.	<u>-3.1</u>	
21	WATSON LAND CO., sued as Watson Estate Company	42.6	80.2
22	Successor in part to Dominguez Water Corporation	<u>37.6</u>	
24	WATT INDUSTRIAL PROPERTIES Successor to William Little	0.1	0.1
27	XXX		
28	XXX		

	<u>PARTY</u> <u>AND SUCCESSOR, IF ANY</u>	<u>ADJUDICATED RIGHT IN</u> <u>ACRE FEET, ANNUALLY</u>
1		
2	WATT, R.	0
	WATT, R.A.	
3	WATT, R.A., INCORPORATED	
	Watt, R.A. Construction Company	
4	Successor to Ned Ewing, et al	6.5
	Successor in part to Isabela	
5	J. Granz Estate	13.75
	Successor in part to Joughin	
6	Torrance Ranch	55.35
	Sold to Dominguez Water Corp.	-61.85
7	Sold to City of Torrance	<u>-13.75</u>
8	WECHSLER, B.A.	0
	Successor to Mates Tune, et al.	3.1
9	Sold to Sparkletts Drinking	
	Water Corp.	<u>-3.1</u>
10		
11	WEEKS, M.E.	0
12	WESCOTT, FRANK	0
13	WESTON INVESTMENT COMPANY, sued as	184.0
	Richard Roe Co. 2	
14	one K.S. Senness	
	one Charles W. Shepard	
15	Sold to Torrance Sand and	
	Gravel Corp.	<u>-184.0</u>
16		
17	WESTON, BEN	0
18	WILSON, DON, BUILDERS	0
	Successors to Kasuo Isamu and	
19	Yoshiki R. Kita	32.6
	Sold to Dominguez Water Corp.	<u>-32.6</u>
20		
21	WILSON, A.K., LUMBER COMPANY,	0
	a corporation	
22	one Martin Bros. Box Company	
	of California	3.4
23	Sold to Southwest Steel Rolling	
	Mills	<u>-3.4</u>
24		
25	WIRZ, FRANK	0
26	WISEBURN SCHOOL DISTRICT	8.2
27	XXX	
28		

	<u>PARTY AND SUCCESSOR, IF ANY</u>	<u>ADJUDICATED RIGHT IN ACRE FEET, ANNUALLY</u>
1		
2		
3	WITTSTROM, P.J.	0
4	WOOLLEY, CORA B. sued as	0
5	Cora B. Wooley	
6	WOODLAND, T.W.	0
7	WOODLAND CEMETERY ASSOCIATION	0
8	WOODMAN, KATHERINE P. sued as	0
9	F.T. Woodman	
10	(See Fred A. Jungquist)	
11	WOOLNER, HENRY S.	0
12	WREDEN, MINNIE V.	0
13	one Golden Monroe Homes, Inc.	
14	WRIGHT, A.P. sued as	0
15	Paul Wright	
16		
17	ZIEGLER, MAXWELL	0
18	ZWEITER, MARY	0
19		
20	Total	64,477.75
21		
22		
23		
24		
25		
26		
27		
28		

1 IV.

2 Adjudicated Rights Transferable.

3 Any rights decreed and adjudicated herein may be trans-
4 ferred, assigned, licensed or leased by the owner thereof pro-
5 vided, however, that no such transfer shall be complete until
6 compliance with the appropriate notice procedures established
7 by the Watermaster herein.

8 Rights adjudicated herein which are temporarily trans-
9 ferred, licensed or leased shall be considered the production
10 from the Basin on behalf of such transferee, licensee or
11 lesseewhich next follows his production of released exchange
12 pool water, if any.

13 V.

14 Physical Solution - Carry-Over, Excess Production
15 and Drought Carry-Over.

16 1. Carry-over. In order to add flexibility to the
17 operation of this Judgment and to assist in a physical solution
18 to meet the water requirements in the West Basin, each of the
19 parties to this action who is adjudged in Paragraph III here-
20 of to have an Adjudicated Right and who, during a water year,
21 does not extract from the Basin all of such party's Adjudicated
22 Right, is permitted to carry over from such water year the
23 right to extract from the Basin in the next succeeding water
24 year an amount of water equivalent to the excess of his Ad-
25 judicated Right over his extraction during said water year
26 not to exceed, however, 10% of such party's Adjudicated Right
27 or two acre-feet, whichever is the larger.

28 2. Excess Production. In order to meet possible

1 emergencies, each of the parties to this action who is ad-
2 judged in paragraph III hereof to have an Adjudicated Right
3 is permitted to extract from the Basin in any water year for
4 beneficial use an amount in excess of each such party's Ad-
5 judicated Right not to exceed 2 acre-feet or ten per cent
6 (10%) of such party's Adjudicated Rights, whichever is the
7 larger, and in addition thereto, such greater amount as may
8 be approved by the Court. If such greater amount is recom-
9 mended by the Watermaster, such order of Court may be made
10 ex parte. Each such party so extracting water in excess of
11 his Adjudicated Rights shall be required to reduce his ex-
12 tractions below his Adjudicated Rights by an equivalent amount
13 in the water year next following. Such requirement shall be
14 subject to the proviso that in the event the Court determines
15 that such reduction will impose upon such a party, or others
16 relying for water service upon such party, an unreasonable
17 hardship, the Court may grant an extension of time within
18 which such party may be required to reduce his extractions by
19 the amount of the excess theretofore extracted by such party.
20 If such extension of time is recommended by the Watermaster,
21 such order of Court may be granted ex parte.

22 3. Drought Carry-over. By reason of this Court's
23 Orders dated June 2, 1977, and September 29, 1977, for the
24 water years 1976-77 and 1977-78 any party herein (including
25 any successor in interest) can "carry-over" until utilized,
26 any Adjudicated Right (including any authorized carry-over
27 rights from prior years) unexercised during said water years.
28 /

VI.

Physical Solution- Exchange Pool Provisions.

As a further part of said physical solution herein imposed:

1. Mandatory Offer to Exchange Pool. Not less than sixty (60) days prior to the beginning of each water year, each party having supplemental water available to him through then existing facilities, other than water which any such party has the right to extract hereunder, shall file with the Watermaster the offer of such party to release to the Exchange Pool the amount by which such party's Adjudicated Right exceeds one-half of the estimated total required use of water by such party during the ensuing water year, provided that the amount required to be so offered for release shall not exceed the amount such party can replace with supplemental water so available to him.

(a) Basis of Offer to Exchange Pool- Redetermination of Offer by Watermaster. Such estimate of total required use and such mandatory offer shall be made in good faith and shall state the basis on which the offer is made, and shall be subject to review and redetermination by the Watermaster, who may take into consideration the prior use by such party for earlier water years and all other factors indicating the amount of such total required use and the availability of replacement water.

(b) Voluntary Offer to Exchange Pool. Any party filing an offer to release water under the mandatory provisions of this Paragraph VI may also file a voluntary offer to release

1 any part or all of any remaining amount of water which such
2 party has the right under this Judgment to pump or otherwise
3 extract from the Basin, and any party who is not required to
4 file an offer to release water may file a voluntary offer to
5 release any part or all of the amount of water which such party
6 has the right under this Judgment to pump or otherwise extract
7 from the Basin. All such voluntary offers shall be made not
8 less than sixty (60) days prior to the beginning of each water
9 year.

10 2. Price of Water Offered to Exchange Pool. Each offer
11 to release water under the foregoing subparagraph [1 (a) and 1 (b)]
12 shall be the price per acre-foot declared and determined at the
13 time of the filing of such offer by the releasing party; provided:

14 (a) Replacement Cost. That such price per acre-
15 foot shall not exceed the price which the releasing party would
16 have to pay to obtain from others, in equal monthly amounts,
17 through existing facilities, a quantity of supplemental water
18 equal in amount to that offered to be released; or

19 (b) Maximum Price. If any such releasing party has
20 no existing facilities through which to obtain water from others,
21 such price shall not exceed the sum of the price per acre-foot
22 charged by The Metropolitan Water District of Southern Cali-
23 fornia to West Basin Municipal Water District plus the addition-
24 al amount per acre-foot charged by the latter to municipali-
25 ties and public utilities for water received from said Metro-
26 politan Water District.

27 3. Price Dispute-Objection - Watermaster Determination-
28 Court Determination. In the event of a dispute as to any price

1 at which water is offered for release, any party affected
2 thereby may, within thirty (30) days thereafter, by an ob-
3 jection in writing, refer the matter to the Watermaster for
4 determination. Within thirty (30) days after such objection
5 is filed the Watermaster shall consider said objection and
6 shall make his finding as to the price at which said water
7 should be offered for release and notify all interested
8 parties thereof. Any party in compliance to these Exchange
9 Pool Provisions may file with the Court, within thirty (30)
10 days thereafter, any objection to such finding or determin-
11 ation of the Watermaster and bring the same on for hearing
12 before the Court at such time as the Court may direct, after
13 first having served said objection upon each of the interested
14 parties. The Court may affirm, modify, amend or overrule such
15 finding or determination of the Watermaster. Pending such
16 determination if the water so offered has been allocated, the
17 party making the offer shall be paid the price declared in his
18 offer, subject to appropriate adjustment upon final determin-
19 ation. The costs of such determination shall be apportioned or
20 assessed by the Watermaster in his discretion between or to the
21 parties to such dispute, and the Watermaster shall have the
22 power to require, at any time prior to making such determin-
23 ation, any party or parties to such dispute to deposit with the
24 Watermaster funds sufficient to pay the cost of such determin-
25 ation, subject to final adjustment and review by the Court as
26 provided in this Paragraph.

27 4. Request For Water From Exchange Pool. Not less than
28 sixty (60) days prior to the beginning of each water year any

1 party whose estimated required use of water during the ensuing
2 water year exceeds the sum of the quantity of water which such
3 party has the right under this Judgment to extract from the
4 Basin and the quantity available to him through then existing
5 facilities, may file with the Watermaster a request for the
6 release of water in the amount that his said estimated use ex-
7 ceeds his said available supply. Such request shall be made
8 in good faith and shall state the basis upon which the request
9 is made, and shall be subject to review and redetermination by
10 the Watermaster. Within thirty (30) days thereafter the Water-
11 master shall advise, in writing, those requesting water of the
12 estimated price thereof. Any party desiring to amend his re-
13 quest by reducing the amount requested may do so after the service
14 of such notice. Prior to the first day of each water year the
15 Watermaster shall determine if sufficient water has been of-
16 fered to satisfy all requests. If he determines that sufficient
17 water has not been offered he shall reduce such requests pro
18 rata in the proportion that each request bears to the total
19 of all requests. Thereupon, not later than said first day of
20 each water year, he shall advise all parties offering to re-
21 lease water of the quantities to be released by each and ac-
22 cepted in the Exchange Pool and the price at which such water
23 is offered. Simultaneously, he shall advise all parties re-
24 questing water of the quantities of released water allocated
25 from the Exchange Pool and to be taken by each requesting party
26 and the price to be paid therefor.

27 5. Allocation Of Exchange Pool Water by Watermaster.

28 In allocating water which has been offered for release to the

1 Exchange Pool under subparagraph 1 hereof, the Watermaster
2 shall first allocate that water required to be offered for
3 release and which is offered at the lowest price pursuant to
4 subparagraph 2 hereof, and progressively thereafter at the next
5 lowest price or prices. If the aggregate quantity of water
6 required to be released is less than the aggregate quantity
7 of all requests for the release of water made pursuant to
8 subparagraph 4 hereof, he shall then allocate water volun-
9 tarily offered for release and which is offered at the lowest
10 price and progressively thereafter at the next lowest price
11 or prices, provided that the total allocation of water shall
12 not exceed the aggregate of all such requests.

13 Any water offered for release under subparagraph 1
14 hereof and not accepted in the Exchange Pool and not allocated
15 therefrom shall be deemed not to have been offered for release
16 and may be extracted from the Basin by the party offering the
17 same as if such offer had not been made.

18 Each party requesting the release of water for his
19 use and to whom released water is allocated from the Exchange
20 Pool may thereafter, subject to all of the provisions of this
21 Judgment, extract such allocated amount of water from the Basin,
22 in addition to the amount such party is otherwise entitled to
23 extract hereunder during the water year for which the allocation
24 is made.

25 6. Exchange Pool Water Pumped Before Pumper's Own Right.

26 From and after the first day of each water year, all water ex-
27 tracted from the Basin by any party requesting the release of
28 water and to whom such water is allocated shall be deemed to have

1 been water so released until the full amount released for
2 use by him shall have been taken, and no such party shall be
3 deemed to have extracted from the Basin any water under his
4 own right so to do until said amount of released water shall
5 have been extracted. Water extracted from the Basin by parties
6 pursuant to their request for the release of water shall be
7 deemed to have been taken by the offerors of such water under
8 their own rights to extract water from the Basin.

9 7. Price and Payment For Water Released for Exchange
10 Pool. All parties allocated water under subparagraph 4 here-
11 of shall pay a uniform price per acre-foot for such water,
12 which price shall be the weighted average of the prices at
13 which all the water allocated was offered for release.

14 Each party shall pay to the Watermaster, in five equal
15 monthly installments during the applicable water year, an
16 amount equal to the quantity of water allocated to him multi-
17 plied by said uniform price. The Watermaster shall bill each
18 such party monthly for each such installment, the first such
19 billing to be made on or before the first day of the second
20 month of the water year involved, and payment therefor shall
21 be made to the Watermaster within thirty (30) days after the
22 service of each such statement. If such payment be not made
23 within said thirty (30) days such payment shall be delinquent
24 and a penalty shall be assessed thereon at the rate of 1% per
25 month until paid. Such delinquent payment, including penalty,
26 may be enforced against any party delinquent in payment by
27 execution or by suit commenced by the Watermaster or by any
28 party hereto for the benefit of the Watermaster.

1 Promptly upon receipt of such payment, the Watermater
2 shall make payment for the water released and allocated, first,
3 to the party or parties which offered such water at the lowest
4 price, and then through successive higher offered prices up
5 to the total allocated.

6 VII.

7 Additional Pumping Allowed Under Agreement With
8 Central and West Basin Water Replenishment District, During
9 Periods of Emergency.

10 Central and West Basin Water Replenishment District,
11 a public corporation of the State of California, (Division 18,
12 commencing with Section 60,000 of the Water Code), hereinafter
13 "Replenishment District" , overlies West Basin and engages in
14 activities of replenishing the ground waters thereof.

15 During an actual or threatened temporary shortage of the
16 imported water supply to West Basin, Replenishment District may,
17 by resolution, determine to subsequently replenish the Basin
18 for any water produced in excess of a party's adjudicated rights
19 hereunder, within a reasonable period of time , pursuant to
20 agreements with such parties (to a maximum of 10,000 acre feet),
21 under the terms and conditions hereinafter set forth.

22 (a) Notwithstanding any other provision of this
23 Judgment, parties (including successors in interest) who are
24 water purveyors, as hereinabove defined, are authorized to
25 enter into agreements with Replenishment District under which
26 such water purveyors may exceed their Adjudicated Rights for
27 a particular water year when the following conditions are met:
28 /

1 (1) Replenishment District is in receipt of
2 a resolution of the Board of Directors
3 of The Metropolitan Water District of
4 Southern California ("MWD") stating there
5 is an actual or immediately threatened
6 temporary shortage of MWD's imported
7 water supply compared to MWD's needs, or
8 a temporary inability to deliver MWD's
9 imported water supply throughout its area,
10 which will be alleviated in part by over-
11 pumping from West Basin.

12 (2) The Board of Directors of both Replenish-
13 ment District and West Basin Municipal
14 Water District (WBMWD), by resolutions,
15 concur in the resolution of MWD's Board of
16 Directors and each determine that the
17 temporary overproduction in West Basin
18 will not adversely affect the integrity
19 of the Basin or the sea water barrier
20 maintained along the Coast of West Basin.

21 (3) In said resolution, Replenishment District's
22 Board of Directors shall set a public
23 hearing, and notice the time, place and
24 date thereof (which may be continued from
25 time to time without further notice) and
26 which said notice shall be given by First
27 Class Mail to the current designees of
28 the parties, filed and served in accord-

1 ance with Paragraph IX of this Judgment.
2 Said notice shall be mailed at least
3 ten (10) days before said scheduled
4 hearing date.

5 (4) At said public hearing, parties (includ-
6 ing successors in interest) shall be
7 given full opportunity to be heard, and
8 at the conclusion thereof the Board of
9 Directors of Replenishment District by
10 resolution decides to proceed with agree-
11 ments under this Paragraph VII.

12 (b) All such agreements shall be subject to the
13 following requirements, and such reasonable others as Replenish-
14 ment District's Board of Directors shall require:

15 (1) They shall be of uniform content except
16 as to the quantity involved, and any special
17 provisions considered necessary or de-
18 sirable with respect to local hydrologi-
19 cal conditions or good hydrologic practice.

20 (2) They shall be offered to all water pur-
21 veyors, excepting those which Replenish-
22 ment District's Board of Directors de-
23 termine should not over-pump because such
24 over-pumping would occur in undesirable
25 proximity to a sea water barrier project
26 designed to forestall sea water intrusion,
27 or within, or in undesirable proximity to,
28 an area within West Basin wherein ground-

1 water levels are at an elevation where
2 over-pumping is, under all the circum-
3 stances, then undesirable.

4 (3) The maximum terms for the agreements shall
5 be four months, all of which said agree-
6 ments shall commence and end on the same
7 day (and which may be executed at any time
8 within said four month period), unless an
9 extension thereof is authorized by the
10 Court, under this Judgment.

11 (4) They shall contain provisions that the
12 water purveyor executing the agreement
13 pay to the Replenishment District a price,
14 in addition to the applicable replenish-
15 ment assessment, determined on the follow-
16 ing formula: The price per acre foot of
17 WBMWD's treated domestic and municipal water for
18 the water year in which the agreement is
19 to run, less the total of: (a) an amount
20 per acre foot as an allowance on account
21 of incremental cost of pumping, as de-
22 termined by Replenishment District's
23 Board of Directors; and (b) the rate of
24 the replenishment assessment of Replenish-
25 ment District for the same fiscal year.
26 If the term of the agreement is for a period
27 which will be partially in one fiscal year
28 and partially in another, and a change in

1 either or both the price per acre foot
2 of WBMWD's treated domestic and municipal
3 water and rate of the replenishment
4 assessment of Replenishment District is
5 scheduled, the price formula shall be de-
6 termined by averaging the scheduled changes
7 with the price and rate then in effect,
8 based on the number of months each will
9 be in effect during the term of the agree-
10 ment. Any price for a partial acre foot:
11 shall be computed pro rata. Payments shall
12 be due and payable on the principle that
13 over-extractions under the agreement are
14 the last water pumped in the fiscal year,
15 and shall be payable as the agreement
16 shall provide.

17 (5) They shall contain provisions that:

18 (a) All of such agreements (but not less
19 than all) shall be subject to termination
20 by Replenishment District if, in the Judg-
21 ment of Replenishment District's Board of
22 Directors, the conditions or threatened
23 conditions upon which they were based have
24 abated to the extent over-extractions are
25 no longer considered necessary; and

26 (b) that any individual agreement or
27 agreements may be terminated if the Re-
28 plenishment District's Board of Directors

1 finds that adverse hydrologic circum-
2 stances have developed as a result of
3 over-extractions by any water purveyor
4 or purveyors which have executed said
5 agreements, or for any other reason that
6 Replenishment District's Board of Di-
7 rectors finds good and sufficient.

8 (c) Other matters applicable to such agreements
9 and over-pumping thereunder are as follows, and to the extent
10 they would affect obligations of the Replenishment District they
11 shall be anticipated in said agreements:

12 (1) The quantity of over-pumping permitted
13 shall be additional to that which the
14 water purveyor could otherwise over-pump
15 under this Judgment.

16 (2) The total quantity of permitted over-
17 pumping under all said agreements during
18 said four months shall not exceed ten
19 thousand (10,000) acre feet, but the
20 individual water purveyor shall not be
21 responsible or affected by any violation
22 of this requirement. That total is ad-
23 ditional to over-extractions otherwise
24 permitted under this Judgment.

25 (3) Only one four month period may be utilized
26 by Replenishment District in entering into
27 such agreements, as to any one emergency
28 or continuation thereof declared by MWD's

1 Board of Directors under sub-paragraph
2 6 (a) hereof.

3 (4) The ex parte provisions of this Judgment
4 may be utilized in lieu of the authority
5 contained herein (which ex parte pro-
6 visions are not limited as to time, nature
7 or relief, or terms of any agreements),
8 but neither Replenishment District nor
9 any other party shall utilize both as to
10 any one such emergency or continuation
11 thereof.

12 (5) If any party claims that it is being damaged
13 or threatened with damage by the over-ex-
14 tractions by any party to such an agree-
15 ment, the Watermaster or any party hereto
16 may seek appropriate action of the Court
17 for termination of any such agreement upon
18 notice of hearing given by the party com-
19 plaining, to the party to said agreement,
20 to the Replenishment District, and to all
21 parties who have filed a request herein
22 for such special notice. Any such term-
23 ination shall not affect the obligation
24 of the terminated party to make payments
25 under the agreement for over-extractions
26 which previously occurred thereunder.

27 (6) Replenishment District shall maintain
28 separate accounting and a separate fund

1 of the proceeds from payments made pur-
2 suant to agreements entered into under
3 this Paragraph VII. Said fund shall be
4 utilized solely for purposes of replenish-
5 ment and the replacement of waters in
6 West Basin. Replenishment District shall,
7 as soon as practicable, cause replenish-
8 ment in West Basin by the amounts to be
9 overproduced pursuant to this Paragraph
10 VII, whether through spreading, injection,
11 or in-lieu agreements.

12 (7) Over-extractions made pursuant to the
13 said agreements shall not be subject to
14 the "make up" provisions of this Judgment,
15 as amended, provided, that if any party
16 fails to make payments as required by the
17 agreement, Watermaster may require such
18 "make up" under Paragraph V hereof.

19 (8) Water Purveyor under any such agreement
20 may, and is encouraged to, enter into ap-
21 propriate arrangements with customers who
22 have water rights in West Basin under or
23 pursuant to this Judgment, whereby the
24 Water Purveyor will be assisted in meet-
25 ing the objectives of the agreement.

26 (9) Nothing in this Paragraph VII limits the
27 exercise of the reserved and continuing
28 jurisdiction of the court as provided in
29 Paragraph XIV hereof.

2 Injunction:

3 On and after the date hereof, each of the parties hereto,
 4 their successors and assigns, and each of their agents, employees,
 5 attorneys, and any and all persons acting by, through, or under
 6 them or any of them, are and each of them is hereby perpetually
 7 enjoined and restrained from pumping or otherwise extracting
 8 from the Basin any water in excess of said party's Adjudicated
 9 Rights, except as provided in Paragraphs V, VI, and VII hereof.

10 IX.

11 Order of Pumping Credit.

12 Production of water from the Basin for the use or benefit
 13 of the parties hereto shall be credited to each such party in
 14 the following order:

- 15 1. Exchange Pool production (Paragraph VI).
- 16 2. Leased or licensed production (Paragraph IV).
- 17 3. Normal carry-over (Paragraph V, 1).
- 18 4. Adjudicated Right (Paragraph III).
- 19 5. Drought carry-over (Paragraph V, 3).
- 20 6. Emergency Production under Agreement with
 21 Replenishment District (Paragraph VII).

22 X.

23 Loss of Decreed Rights.

24 It is in the best interests of the parties herein and
 25 the reasonable beneficial use of the Basin and its water supply
 26 that no party be encouraged to take and use more water than is
 27 actually required. Failure to produce all of the water to which
 28 a party is entitled hereunder shall not, in and of itself, be

1 deemed or constitute an abandonment of such party's right in
2 whole or in part.

3 No taking of water under Paragraphs III, V, VI and VII here-
4 of, by any party to this action shall constitute a taking adverse
5 to any other party; nor shall any party to this action have
6 the right to plead the statute of limitations or an estoppel
7 against any other party by reason of his said extracting of
8 water from the Basin pursuant to a request for the release of
9 water; nor shall such release of water to the Exchange Pool by
10 any party constitute a forfeiture or abandonment by such party
11 of any part of his Adjudicated Right to water; nor shall such
12 release in anywise constitute a waiver of such right although
13 such water, when released under the terms of this Judgment may
14 be devoted to a public use; nor shall such release of water by
15 any such party in anywise obligate any party so releasing to
16 continue to release or furnish water to any other party or his
17 successor in interest, or to the public generally, or to any
18 party thereof, otherwise than as provided herein.

19 XI.

20 Watermaster Appointment.

21 The Watermaster shall be the Department of Water Re-
22 sources of the Resources Agency of the State of California,
23 to serve at the pleasure of the Court, and said Watermaster shall
24 administer and enforce the provisions of this Judgment and the
25 instructions and subsequent orders of this Court, and shall have
26 the powers and duties hereinafter set forth. If any such pro-
27 visions, instructions or orders of the Court shall have been dis-
28 obeyed or disregarded, said Watermaster is hereby empowered and

1 directed to report to the Court such fact and the circumstances
2 connected therewith and leading thereto.

3 XII.

4 Watermaster- Powers and Duties.

5 In order to assist the Court in the administration and en-
6 forcement of the provisions of this Judgment and to keep the
7 Court fully advised in the premises, the Watermaster shall have
8 the following duties in addition to those provided for elsewhere
9 herein:

10 1. Parties to Measure and Record Static Water Level
11 of Each Well. The Watermaster may require each party, at such
12 party's own expense, to measure and record not more often than
13 once a month, the elevation of the static water level in such of
14 his wells in the Basin as are specified by the Watermaster.

15 2. Parties to Install Meters on Wells and Record Pro-
16 duction Therefrom. The Watermaster may require any party hereto
17 owning any facilities for pumping or otherwise extracting water
18 from the Basin, at such party's own expense, to install and at
19 all times maintain in good working order, mechanical measuring
20 devices, approved by the Watermaster, and keep records of water
21 production, as required by the Watermaster, through the use of
22 such devices. However, if in the opinion of the Watermaster
23 such mechanical devices are not practicable or feasible, the
24 Watermaster may require such party to submit estimates of his
25 water production, together with such information and data as is
26 used by such party in making such estimate. Upon the failure
27 of any party to install such device or devices on or before the
28 date the Watermaster shall fix for such installation, or to

1 provide the Watermaster with estimates of water production and
2 information on which such estimates are based, the Watermaster
3 may give the Court and the party notice of such failure for
4 proper action in the premises.

5 3. Watermaster to Assemble Records and Data and Evaluate
6 Same. The Watermaster shall collect and assemble the records
7 and other data required of the parties hereto, and evaluate such
8 records and other data. Such records and other data shall be
9 open to inspection by any party hereto or his representative
10 during normal business hours.

11 4. Watermaster's Annual Budget. The Watermaster shall pre-
12 pare a tentative budget for each water year, stating the estimated
13 expense for administering the provisions of this Judgment. The
14 Watermaster shall mail a copy of said tentative budget to the
15 designee of each of the parties hereto having an Adjudicated
16 Right, at least sixty (60) days before the beginning of each water
17 year. If any such party has any objection to said tentative
18 budget or any suggestions with respect thereto, he shall present
19 the same in writing to the Watermaster within fifteen (15) days
20 after service of said tentative budget upon him. If no object-
21 ions are received, the tentative budget shall become the final
22 budget. If objections to said tentative budget are received,
23 the Watermaster shall, within ten (10) days thereafter, consider
24 such objections, prepare a final budget, and mail a copy there-
25 of to each such party's designee, together with a statement of
26 the amount assessed to each such party, computed as provided in
27 subparagraph 5 of this Paragraph XII. Any such party whose ob-
28 jections to said tentative budget are denied in whole or in part

1 by the Watermaster may, within fifteen (15) days after the service
2 of the final budget upon him, make written objection thereto by
3 filing his objection with the Court after first mailing a copy of
4 such objection to each party's designee, and shall bring such
5 objection on for hearing before the Court at such time as the
6 Court may direct. If objection to such budget be filed with
7 the Court as herein provided, then the said budget and any and
8 all assessments made as herein provided may be adjusted by the
9 Court following said hearing.

10 5. Watermaster's Fees as Parties' Costs. The fees,
11 compensation or other expenses of the Watermaster hereunder
12 shall be borne by the parties hereto having Adjudicated Rights
13 in the proportion that each such party's Adjudicated Right
14 bears to the total Adjudicated Rights of all such parties, and
15 the Court or Watermaster shall assess such costs to each such
16 party accordingly.

17 Payment thereof, whether or not subject to adjustment by
18 the Court as provided in this Paragraph XII, shall be made by
19 each such party, on or prior to the beginning of the water year
20 to which said final budget and statement of assessed costs is
21 applicable. If such payment by any party is not made on or be-
22 fore said date, the Watermaster shall add a penalty of 5% there-
23 of to such party's statement. Payment required of any party
24 hereunder may be enforced by execution issued out of the Court,
25 or as may be provided by any order hereinafter made by the Court,
26 or by other proceedings by the Watermaster or by any party hereto
27 on the Watermaster's behalf.

28 All such payments and penalties received by the Watermaster

1 shall be expended by him for the administration of this Judgment.
2 Any money remaining at the end of any water year shall be avail-
3 able for such use in the following water year.

4 6. Watermaster's Annual Report. The Watermaster shall
5 prepare an annual report within ninety (90) days after the end
6 of each water year covering the work of the Watermaster during
7 the preceding water year and a statement of his receipts and
8 expenditures.

9 7. Watermaster Report to Contain All Basin Production.
10 The Watermaster shall report separately, in said annual report,
11 all water extractions in the Basin, including that by producers
12 who have no "Adjudicated Right."

13 8. Watermaster Rules and Regulations. The Watermaster
14 may prescribe such reasonable Rules and Regulations as will
15 assist him in the performance of his duties hereunder.

16 9. Other Watermaster Duties. The Watermaster shall per-
17 form such other duties as directed by the Court and as may be
18 otherwise provided by law.

19 XIII.

20 Objection to Watermaster Determination -Notice Thereof
21 and Hearing Thereon.

22 Any party hereto having an Adjudicated Right who has
23 objection to any determination or finding made by the Watermaster,
24 other than as provided in Paragraphs VI and XII hereof, may make
25 such objection in writing to the Watermaster within thirty (30)
26 days after the date the Watermaster gives written notice of the
27 making of such determination or finding, and within thirty (30)
28 days thereafter the Watermaster shall consider said objection

1 and shall amend or affirm such finding or determination and
2 shall give notice thereof to all parties hereto having Adjudi-
3 cated Rights. Any such party may file with the Court within
4 thirty (30) days from the date of said notice any objection to
5 such final finding or determination of the Watermaster and bring
6 the same on for hearing before the Court at such time as the
7 Court may direct, after first having served said objection upon
8 each of the parties hereto having an Adjudicated Right. The
9 Court may affirm, modify, amend or overrule any such finding or
10 determination of the Watermaster.

11 XIV.

12 Reserved and Continuing Jurisdiction of Court.

13 The Court hereby reserves continuing jurisdiction and,
14 upon application of any party hereto having an Adjudicated Right
15 or upon its own motion, may review (1) its determination of the
16 safe yield of the Basin, or (2) the Adjudicated Rights, in the
17 aggregate, of all of the parties as affected by the abandonment
18 or forfeiture of any such rights, in whole or in part, and by
19 the abandonment or forfeiture of any such rights by any other
20 person or entity, and, in the event material change be found,
21 to adjudge that the Adjudicated Right of each party shall be
22 ratably changed; provided, however, that notice of such review
23 shall be served on all parties hereto having Adjudicated Rights
24 at least thirty (30) days prior thereto. Except as provided
25 herein, and except as rights decreed herein may be abandoned
26 or forfeited in whole or in part, each and every right decreed
27 herein shall be fixed as of the date of the entry hereof.

28 /

1 XV.

2 Judgment Modifications and Further Orders of Court.

3 The Court further reserves jurisdiction so that at any
4 time, and from time to time, upon its own motion or upon ap-
5 plication of any party hereto having an Adjudicated Right, and
6 upon at least thirty (30) days notice to all such parties, to
7 make such modifications of or such additions to, the pro-
8 visions of this Judgment, or make such further order or orders
9 as may be necessary or desirable for the adequate enforcement,
10 protection or preservation of the Basin and of the rights of the
11 parties as herein determined.

12 XVI.

13 Subsequent Change From Water Year to Fiscal Year.

14 "Water year" as used in Paragraphs V,VI,VII and XII
15 hereof shall, beginning with the first "fiscal year" (July 1-
16 June 30) commencing at least four months after this "Amended
17 Judgment" becomes final, and thereafter, mean the "fiscal year".
18 Since this changeover will provide a transitional accounting
19 period of nine months, October 1 - June 30, notwithstanding the
20 findings and determinations in the annual Watermaster Report for
21 the last preceding water year, the Adjudicated Right of each of
22 the parties hereto permitted to be extracted from the West Basin
23 for said transitional accounting period shall be on the basis of
24 three-quarters of each said party's otherwise Adjudicated Right.
25 The Watermaster herein shall convert the times of his duties
26 hereunder, including the rendition of a nine month report for
27 the said transitional accounting period (October 1 - June 30),
28 to coincide with the changeover from the water year to the fiscal

1 year hereunder.

2 XVII.

3 Designees of Parties For Future Notice and Service.

4 Service of this "Amended Judgment" on those parties who
5 have executed and filed with the Court "Agreement and Stipula-
6 tion for Judgment" or otherwise have named a designee, filed
7 the same herein and have therein designated a person there-
8 after to receive notices, requests, demands, objections, reports,
9 and all other papers and processes in this cause, shall be made
10 by first class mail, postage prepaid, addressed to such de-
11 signees (or their successors) and at the address designated for
12 that purpose.

13 Each party who has not heretofore made such a designa-
14 tion shall, within thirty (30) days after the Amended Judgment
15 herein shall have been served upon that party or his designee,
16 file with the Court, with proof of service of a copy thereof
17 upon the Watermaster, a written designation of the person to
18 whom and the address at which all future notices, determinations,
19 requests, demands, objections, reports and other papers and
20 processes to be served upon that party or delivered to that
21 party, are to be so served or delivered.

22 A later substitute or successor designation filed and
23 served in the same manner by any party shall be effective from
24 the date of such filing as to the then future notices, determin-
25 ations, requests, demands, objections, reports and other papers
26 and processes to be served upon or delivered to that party.

27 Delivery to or service upon any party by the Watermaster,
28 by any other party, or by the Court, of any item required to be

1 served upon or delivered to a party under or pursuant to this
2 Judgment, may be by deposit in the mail, first class, postage
3 prepaid, addressed to the latest designee and at the address
4 in said latest designation filed by that party.

5 Parties hereto who have not entered their appearance or
6 whose default has been entered and who are adjudged herein to
7 have an Adjudicated Right, and who have not named a designee
8 for service herein, shall be served with all said future notices,
9 papers and process herein, and service herein shall be ac-
10 complished, by publication of a copy of such said notice, paper
11 or process addressed to, "Parties to the West Basin Adjudication";
12 said publication shall be made once each week for two succes-
13 sive weeks in a newspaper of general circulation, printed and
14 published in the County of Los Angeles, State of California,
15 and circulated within the West Basin Area; the last publication
16 of which shall be at least two weeks and not more than five
17 weeks immediately preceding the event for which said notice is
18 given or immediately preceding the effective date of any order,
19 paper or process; in the event an effective date other than the
20 date of its execution is fixed by the Court in respect of any
21 order, paper or process, said last publication shall be made
22 not more than five weeks following an event, the entry of an
23 order by the Court, or date of any paper or process with respect
24 to which such notice is given.

25 XVIII.

26 Intervention of Successors In Interest and New Parties.

27 Any person who is not a party herein or successor to
28 such party and who proposes to produce water from the Basin may

1 seek to become a party to this Judgment, through a Stipulation
2 In Intervention entered into with the Watermaster. Watermaster
3 may execute said Stipulation on behalf of the other parties here-
4 in, but such Stipulation shall not preclude a party from op-
5 posing such intervention at the time of the court hearing there-
6 on. Said Stipulation for Intervention must thereupon be filed
7 with the Court, which will consider an order confirming said
8 intervention following thirty (30) days notice thereof to the
9 parties, served as herein provided. Thereafter, if approved
10 by the Court, such Intervenor shall be a party herein, bound
11 by this Judgment and entitled to the rights and privileges
12 accorded under the physical solution imposed herein.

13 XIX.

14 Judgment Binding on Successors.

15 Subject to the specific provisions hereinbefore con-
16 tained, this Judgment and all provisions thereof are applicable
17 to, binding upon and inure to the benefit of not only the parties
18 to this action, but as well to their respective heirs, ex-
19 ecutors, administrators, successors, assigns, lessees, licensees
20 and to the agents, employees and attorneys-in-fact of any such
21 persons.

22 XX.

23 Effect of Amended Judgment on Orders Heretofore Made
24 and Entered Herein.

25 This Amended Judgment shall not abrogate the rights of
26 any additional carry-over of unused Adjudicated Rights of the
27 parties herein, as may exist pursuant to the Orders herein
28 filed June 2, 1977, and September 29, 1977.

XXI.

Costs.

None of the parties hereto shall recover his costs as
against any other party.

The Clerk shall enter this Amended Judgment forthwith.

Dated: MAR. 21, 1980.

Judge Specially Assigned

1 HELM, BUDINGER & LEMIEUX
2 An Association including
3 A Professional Corporation
4 4444 Riverside Drive, Suite 201
5 Burbank, California 91505

6 Telephone (213) 849-6473

7 Attorneys for Defendant-Petitioner,
8 Dominguez Water Corporation

9
10 SUPERIOR COURT OF CALIFORNIA, COUNTY OF LOS ANGELES

11 CALIFORNIA WATER SERVICE)
12 COMPANY, et al.,)

No. 506806

13 Plaintiffs,)

14 vs.)

15 CITY OF COMPTON, et al.,)

16 Defendants.)

NOTICE OF ORDER AND AMEND-
MENT TO THE AMENDED JUDGMENT
HEREIN (TO PROVIDE FOR NON-
CONSUMPTIVE ADDITIONAL WATER
PRODUCTION TO RECOVER OLD RE-
FINED OIL AND FOR BASIN
CLEAN-UP)

Hearing: March 22, 1984
Dept. 48, 1:30 p.m.

17
18 PLEASE TAKE NOTICE that the Court, Judge Julius M. Title,
19 Presiding, on March 22, 1984, at 1:30 p.m. in Department 48,
20 located at 111 N. Hill Street, Los Angeles, California, made
21 the enclosed order approving the amended judgment to provide for
22 non-consumptive additional water production to recover old
23 refined oil and for basin clean-up.

24 DATED: March 22, 1984

HELM, BUDINGER & LEMIEUX

25
26 By Ralph B. Helm
27 Ralph B. Helm
28 Attorneys for Dominguez Water
Corporation

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Original Filed

MAR 22 1984

COUNTY CLERK

9
10 SUPERIOR COURT OF CALIFORNIA, COUNTY OF LOS ANGELES

11 CALIFORNIA WATER SERVICE)
12 COMPANY, et al.,)

No. 506806

13 Plaintiffs,)

14 vs.)

15 CITY OF COMPTON, et al.,)

16 Defendants.)

ORDER AND AMENDMENT TO THE
AMENDED JUDGMENT HEREIN (TO
PROVIDE FOR NON-CONSUMPTIVE
ADDITIONAL WATER PRODUCTION
FROM THE BASIN TO RECOVER OLD
REFINED OIL AND FOR BASIN
CLEAN-UP)

Hearing: March 22, 1984
Dept. 48, 1:30 P.M.

17 Pursuant to Paragraph XIV of the Amended Judgment herein,
18 the Petition of defendant, DOMINGUEZ WATER CORPORATION, for an
19 order and amendment to the Amended Judgment herein and notice
20 thereof, came on for hearing at 1:30 o'clock P.M., on March 22,
21 1984, in Department 48 of the above entitled court. HELM,
22 BUDINGER & LEMIEUX and RALPH B. HELM appeared as attorneys for
23 said defendant-petitioner, and proof being made to the
24 satisfaction of the Court and good cause appearing:

25 IT IS HEREBY ORDERED:

26 A. A permit extending for five (5) years from the date
27 hereof is hereby granted to defendant, ATLANTIC RICHFIELD
28

1 CORPORATION ("ARCO" hereinafter), to extract a maximum of one
2 thousand (1,000) acre feet per year of groundwater from the
3 perched aquifer of the Basin and return the same essentially
4 undiminished in quantity and quality to the same aquifer from
5 which it was removed, as part of a project to remove old refined
6 oil which has leaked into the Basin's aquifers. Such water
7 production and the return thereof to the aquifer from which
8 produced shall be permitted said defendant in addition to any
9 other water production right from the Basin contained in the
10 Judgment herein and as a part of a project for recovery and
11 removal of old refined oil from the Basin.

12 Said old refined oil floating on the top of the perched
13 groundwater in the Basin can be recovered and removed by said
14 defendant by operations on its refinery property located near
15 the intersection of Wilmington Avenue and Sepulveda Boulevard in
16 the City of Carson, without interferring with other rights
17 herein. Such operations may be conducted substantially as
18 follows: Weep holes may be drilled through the clay lens
19 approximately fifty (50) feet below the ground surface in a
20 shallow aquifer of the Basin under defendant's said property,
21 which will allow old refined oil on top of said clay lens to
22 pass downward and combine with other old refined oil floating on
23 top of the water in the deeper portion of the perched aquifer.
24 Once this old refined oil has reached the said deeper portion of
25 said aquifer it may then be removed therefrom together with any
26 other oil on the water and in the vicinity, at least to the
27 extent and condition existing prior to construction of the said
28 weep holes, utilizing the following procedure:

1 (a) Water extraction wells may be drilled which, when
2 operating, would create a localized cone of depression in the
3 water table of the perched aquifer and thereby provide a place
4 for a pool of any old refined oil floating on the top of the
5 water to collect.

6 (b) A ring of injection wells should be constructed around
7 the foregoing extraction wells and used to return the pumped
8 water to the aquifer from which it was extracted without
9 diminution, additives or treatment. In addition to providing
10 for the disposal and return of the said extracted water, this
11 would also tend to create a groundwater mound surrounding the
12 pumping cone which would increase the migration of oil into the
13 said pumping cone.

14 (c) The said old refined oil concentrated in the cone of
15 depression should be extracted by separate pumps located in the
16 same wells as are used for the extraction of said perched water.
17 The separate oil extraction pumps should extend into the pool of
18 such old oil floating on top of the water and should be designed
19 to extract the said oil without extracting any significant
20 amount of groundwater.

21 (d) There should be another concentric ring of extraction
22 wells located around the ring of the said injection wells.
23 These extraction wells should be equipped with separate pumps
24 for extracting the water (for reinjection into the
25 aforementioned ring of injection wells) and for extraction of
26 the said old refined oil.

27 The stated procedure, in effect, consists of two distinct
28 operations. First, there is extraction and reinjection of Basin

1 water for the purposes of managing the configuration of the
2 water table therein in order to concentrate the said oil.
3 Second, in a separate operation, there is extraction of the said
4 oil so concentrated.

5 B. At the end of the said five years of operation
6 hereunder, or when sooner terminated if so ordered by
7 Watermaster, or, if ARCO should abandon the oil recovery program
8 herein authorized, defendant, ARCO, shall plug the said herein
9 authorized weep holes and rehabilitate the Basin's aquifers as
10 directed by Watermaster to prevent future transition of
11 groundwater from one Basin aquifer to another, as herein
12 permitted. Such plugging and aquifer restoration to the
13 condition prevailing prior to initiation of the payment shall
14 also be in accordance with any requirements of the California
15 Regional Water Quality Control Board of the Los Angeles Region.

16 C. Defendant ARCO shall pay in advance to Watermaster a
17 reasonable annual administrative fee to cover all costs
18 associated with and incurred by Watermaster to monitor, inspect
19 and enforce compliance with the terms and conditions of the
20 non-consumptive water use permit granted hereby.

21 IT IS HEREBY FURTHER ORDERED AND THE AMENDED JUDGMENT
22 HEREIN SHALL BE AND, IT IS, HEREBY, FURTHER AMENDED AS FOLLOWS:

23 1. Any party herein may petition Watermaster for a
24 non-consumptive water use permit as part of a project to recover
25 old refined oil that has leaked into the perched aquifers of the
26 Basin. Such petition shall:

1 a) Be accompanied by a processing or application fee
2 determined by and payable in advance to Watermaster.

3 b) Request a permit for a project for non-consumptive
4 use extractions from the Basin, which shall not not exceed five
5 (5) years in duration, to produce a maximum of one thousand
6 (1,000) acre feet per year of groundwater from the perched
7 aquifers of the Basin, return the same undiminished in quantity
8 and quality to the same aquifer from which produced and, in
9 conjunction therewith, remove old refined oil which floats on
10 the top of the water in such aquifers.

11 c) Set forth the purpose of the project and the period
12 during which such water is to be so extracted and reinjected.

13 d) Describe the location, size, design and operation of
14 the proposed water extraction and reinjection facilities.

15 e) Contain a reasonable estimate of the maximum amount
16 of such water to be extracted and reinjected on both an annual
17 and a total basis.

18 f) Propose and explain the manner in which any
19 anticipated migration of groundwater from a perched zone to a
20 non-perched zone in the Basin will be discontinued or prevented
21 after completion or conclusion of the project, with any such
22 aquifer restoration and any plugged clay lens holes to meet the
23 requirements of Watermaster and of the California Regional Water
24 Quality Control Board for the Los Angeles Region, for protection
25 of potable groundwater basins.

26 g) Provide sufficient assurance, in Watermaster's
27 judgment, that upon termination of the project, for any reason,
28 the Basin's aquifer system will be restored to the condition

1 prevailing prior to initiation of the project to prevent
2 groundwater migration from one zone or Basin aquifer to another.
3 Said aquifer system restoration shall be sufficient to at least
4 meet the conditions which existed prior to granting of the
5 subject permit.

6 h) State, under penalties of perjury, that a copy of
7 the petition and a notice of the time and place of Watermaster's
8 hearing thereon has been mailed to the designees of all parties
9 herein at least thirty (30) days prior to such hearing.

10 2. Watermaster shall conduct a public hearing on said
11 petition and application and all parties herein and their
12 represenatives shall be heard concerning the same.

13 3. Watermaster shall, in its discretion, grant or deny the
14 application and petition for said permit and, if the same is
15 granted, fix a reasonable annual administrative fee to be paid
16 Watermaster by the Permittee. Within fifteen (15) days after
17 the rendition of its decision, Watermaster shall give written
18 notice thereof to the designees of all parties herein.

19 4. Watermaster's said decision shall be appealable to this
20 court within thirty (30) days of the notice thereof and upon
21 thirty (30) days notice to the designees of all parties herein.

22 5. Watermaster shall monitor and periodically inspect the
23 permitted project for compliance with the terms and conditions
24 of the granted permit hereunder.

25 6. Watermaster, on the motion of any party herein or on
26 its own motion, may interrupt or stop the permitted project for
27 non-compliance with the terms of its permit or to protect the
28 integrity of the Basin or of the Judgment herein. Such stop or


1 interrupt order shall be appealable to this court within thirty
2 (30) days of such order and upon thirty (30) days notice thereof
3 to the designees of all parties herein.

4 7. The temporary and non-consumptive groundwater
5 production from the shallow perched aquifers of the Basin
6 allowed under the permits provided for herein, shall be in
7 addition to, in excess of and not a part of any other Basin
8 production right herein previously adjudged and it shall not
9 interfere with, ripen into or become a right adverse thereto.

10 8. No party shall recover costs from any other party
11 herein.

12 9. The Clerk shall enter this order.

13 Dated: March 22, 1984

14
15 
16
17 Judge Specially Assigned

Wayne K. Lemieux
LAW OFFICES OF WAYNE K. LEMIEUX
141 Duesenberg Drive, Unit 5
Westlake Village, CA 91362

(805) 495-4770

ORIGINAL FILED

MAR 9 1989
COUNTY CLERK

SUPERIOR COURT OF THE STATE OF CALIFORNIA
FOR THE COUNTY OF LOS ANGELES

CALIFORNIA WATER SERVICE
COMPANY ET AL.

Plaintiff,

vs.

CITY OF COMPTON ET AL.

Defendant.

CASE NO. 506806

ORDER AMENDING JUDGMENT

GOOD CAUSE APPEARING upon the duly-noticed Motion of West
Basin Municipal Water District:

IT IS HEREBY ORDERED THAT THE JUDGMENT HEREIN BE AMENDED AS
FOLLOWS:

"NON-CONSUMPTIVE PRACTICES

1. Any party herein may petition the Watermaster for a
non-consumptive water use permit as part of a project to recover
old refined oil or other pollutants that has leaked into the
underground aquifers of the Basin. If the petition is granted
as set forth in this part, the petitioner may extract the
groundwater covered by the petition without the production
counting against the petitioner's production rights.

1 2. If the Watermaster determines that there is a problem
2 of groundwater contamination which the proposed project will
3 remedy or ameliorate, an operator may make extractions of
4 groundwater to remedy or ameliorate that problem if the water is
5 not applied to beneficial surface use, its extractions are made
6 in compliance with terms and conditions established by the
7 Watermaster, and the Watermaster has determined either of the
8 following:

9 (a) The groundwater to be extracted is unusable and
10 cannot be economically blended for use with other water.

11 (b) The proposed program involves extraction of
12 usable water in the same quantity as will be returned to the
13 underground without degradation of quality.

14 3. The Watermaster may provide those terms and conditions
15 the Watermaster deems appropriate, including, but not limited
16 to, restrictions on the quantity of extractions to be so
17 exempted, limitations on time, periodic reviews, requirement of
18 submission of test results from a Watermaster-approved
19 laboratory, and any other relevant terms or conditions.

20 4. The Watermaster shall conduct a public hearing on the
21 petition and all parties herein and their representatives shall
22 have an opportunity to be heard concerning the same.

23 5. The Watermaster shall, in its discretion, grant or deny
24 the petition and fix a reasonable annual administrative fee to
25 be paid to the Watermaster by the permittee. Within fifteen
26 (15) days after the rendition of its decision, the Watermaster
27 shall give written notice thereof to the designees of all
28 parties herein.

1 6. After a noticed, public hearing, the Watermaster may,
2 on the motion of any party herein or on its own motion,
3 interrupt or stop a project for non-compliance with the terms of
4 its permit or rescind or modify the terms of a permit to protect
5 the integrity of the Basin of the Judgment herein. An order to
6 interrupt or stop a project or to rescind or modify the terms of
7 a permit shall apply to groundwater extractions occurring more
8 than 10 days after the date of the order. The permit holder and
9 the designees of all parties herein shall be given two weeks
10 written notice of any hearing to consider interrupting or
11 stopping a permitted project or the rescission or modification
12 of the terms of a permit. Notice will be deemed given when
13 mailed by first-class mail or when personally delivered.

14 7. The Watermaster's decision to grant, deny, modify or
15 revoke a permit or to interrupt or stop a permitted project may
16 be appealed to this court within thirty (30) days of the notice
17 thereof and upon thirty (30) days notice to the designees of all
18 parties herein.

19 8. The Watermaster shall monitor and periodically inspect
20 the project for compliance with the terms and conditions of the
21 permit hereunder.

22 9. No party shall recover costs from any other party
23 herein."
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1 IT IS FURTHER ORDERED that the amendment to the judgment
2 approved by the court on March 22, 1984 ("former amendment") is
3 hereby repealed, provided, all permits issued by the Watermaster
4 under the former amendment shall be deemed under the instant
5 amendment.

6
7 Dated: MAR 08 1989

Florence T. Lurhard
Judge

VERIFICATION

STATE OF CALIFORNIA, COUNTY OF

I have read the foregoing

and know its contents

☒ CHECK APPLICABLE PARAGRAPH

☐ I am a party to this action. The matters stated in the foregoing document are true of my own knowledge except as to those matters which are stated on information and belief, and as to those matters I believe them to be true.

☐ I am ☐ an Officer ☐ a partner ☐ a _____ of _____

a party to this action and am authorized to make this verification for and on its behalf, and I make this verification for that reason ☐ I am informed and believe and on that ground allege that the matters stated in the foregoing document are true ☐ The matters stated in the foregoing document are true of my own knowledge except as to those matters which are stated on information and belief and as to those matters I believe them to be true.

☐ I am one of the attorneys for _____ a party to this action. Such party is absent from the county of aforesaid where such attorneys have their offices, and I make this verification for and on behalf of that party for that reason I am informed and believe and on that ground allege that the matters stated in the foregoing document are true.

Executed on _____, 19____, at _____ California

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

Type or Print Name

Signature

ACKNOWLEDGMENT OF RECEIPT OF DOCUMENT

(other than summons and complaint)

Received copy of document described as _____

on _____ 19____

Type or Print Name

Signature

PROOF OF SERVICE

STATE OF CALIFORNIA, COUNTY OF

I am employed in the county of Ventura, State of California

I am over the age of 18 and not a party to the within action, my business address is 3709 Old Conejo Rd
Newbury Park, CA

ff
Jerru > On February 18, 1989 I served the foregoing document described as NOTICE OF MOTION; MOTION TO AMEND JUDGMENT TO PROVIDE FOR NON-CONSUMPTIVE CLEANUP OPERATIONS; ORDER AMENDING JUDGMENT

on All Interested Parties

in this action by placing a true copy thereof enclosed in a sealed envelope addressed as follows:

SEE ATTACHED LIST

☒ (B) MAIL: I caused such envelope with postage thereon fully prepaid to be placed in the United States mail at Newbury Park, California.

Executed on January 19, 1989, 19____, at Newbury Park, California

☐ (B) PERSONAL SERVICE: I caused such envelope to be delivered by hand to the offices of the addressee.

Executed on _____ 19____, at _____, California

☐ (State) I declare under penalty of perjury under the laws of the State of California that the above is true and correct.

☐ (Federal) I declare under penalty of perjury under the laws of the United States of America that the above is true and correct.

I am a member of the bar of this court at whose direction the service was made.

Appendix G

Summary of Population Based on Census Data

Urban Water Management Plan
Southwest System

Appendix G-1: Census Tracts within the Southwest System

County	Subregion	City	Census Tract	Percentage of Tract in System
Los Angeles	Gateway Cities	Unincorporated	540800	20%
Los Angeles	Gateway Cities	Unincorporated	540901	100%
Los Angeles	Gateway Cities	Unincorporated	540902	100%
Los Angeles	Gateway Cities	Unincorporated	541001	100%
Los Angeles	South Bay Cities Association	Carson city	541002	75%
Los Angeles	Gateway Cities	Compton city	541100	100%
Los Angeles	Gateway Cities	Unincorporated	541100	50%
Los Angeles	Gateway Cities	Unincorporated	541200	65%
Los Angeles	Gateway Cities	Compton city	542501	6%
Los Angeles	Gateway Cities	Compton city	542900	34%
Los Angeles	Gateway Cities	Unincorporated	543000	100%
Los Angeles	South Bay Cities Association	Carson city	543100	100%
Los Angeles	South Bay Cities Association	Carson city	543321	95%
Los Angeles	South Bay Cities Association	Unincorporated	600100	100%
Los Angeles	South Bay Cities Association	Unincorporated	600201	100%
Los Angeles	South Bay Cities Association	Unincorporated	600202	100%
Los Angeles	South Bay Cities Association	Unincorporated	600301	100%
Los Angeles	South Bay Cities Association	Unincorporated	600302	100%
Los Angeles	South Bay Cities Association	Unincorporated	600400	100%
Los Angeles	South Bay Cities Association	Inglewood city	600501	100%
Los Angeles	South Bay Cities Association	Inglewood city	600502	28%
Los Angeles	South Bay Cities Association	Inglewood city	601402	40%
Los Angeles	South Bay Cities Association	Inglewood city	601501	100%
Los Angeles	South Bay Cities Association	Unincorporated	601501	100%
Los Angeles	South Bay Cities Association	Unincorporated	601502	100%
Los Angeles	South Bay Cities Association	Hawthorne city	601600	100%
Los Angeles	South Bay Cities Association	Unincorporated	601600	100%
Los Angeles	South Bay Cities Association	Hawthorne city	601700	100%
Los Angeles	South Bay Cities Association	Inglewood city	601700	100%
Los Angeles	South Bay Cities Association	Unincorporated	601700	100%
Los Angeles	South Bay Cities Association	Inglewood city	601801	100%
Los Angeles	South Bay Cities Association	Unincorporated	601801	100%
Los Angeles	South Bay Cities Association	Inglewood city	601802	100%
Los Angeles	South Bay Cities Association	Unincorporated	601802	100%
Los Angeles	South Bay Cities Association	Inglewood city	601900	100%
Los Angeles	South Bay Cities Association	Hawthorne city	602002	100%
Los Angeles	South Bay Cities Association	Inglewood city	602002	100%
Los Angeles	South Bay Cities Association	Inglewood city	602003	100%
Los Angeles	South Bay Cities Association	Inglewood city	602004	100%
Los Angeles	South Bay Cities Association	Hawthorne city	602103	19%
Los Angeles	South Bay Cities Association	Hawthorne city	602104	13%
Los Angeles	South Bay Cities Association	Hawthorne city	602200	20%
Los Angeles	South Bay Cities Association	Unincorporated	602200	100%
Los Angeles	South Bay Cities Association	Hawthorne city	602301	100%
Los Angeles	South Bay Cities Association	Unincorporated	602301	100%
Los Angeles	South Bay Cities Association	Hawthorne city	602302	100%
Los Angeles	South Bay Cities Association	Hawthorne city	602501	100%
Los Angeles	South Bay Cities Association	Unincorporated	602501	100%
Los Angeles	South Bay Cities Association	Hawthorne city	602502	100%
Los Angeles	South Bay Cities Association	Hawthorne city	602503	100%

Urban Water Management Plan
Southwest System

Appendix G-1: Census Tracts within the Southwest System

County	Subregion	City	Census Tract	Percentage of Tract in System
Los Angeles	South Bay Cities Association	Gardena city	602600	100%
Los Angeles	South Bay Cities Association	Unincorporated	602600	100%
Los Angeles	South Bay Cities Association	Hawthorne city	602700	70%
Los Angeles	South Bay Cities Association	Inglewood city	602700	100%
Los Angeles	South Bay Cities Association	Unincorporated	602700	100%
Los Angeles	South Bay Cities Association	Unincorporated	602800	100%
Los Angeles	South Bay Cities Association	Gardena city	602900	100%
Los Angeles	South Bay Cities Association	Gardena city	603001	100%
Los Angeles	South Bay Cities Association	Gardena city	603003	100%
Los Angeles	South Bay Cities Association	Gardena city	603004	100%
Los Angeles	South Bay Cities Association	Gardena city	603101	100%
Los Angeles	South Bay Cities Association	Gardena city	603102	100%
Los Angeles	South Bay Cities Association	Gardena city	603200	100%
Los Angeles	South Bay Cities Association	Gardena city	603301	100%
Los Angeles	South Bay Cities Association	Gardena city	603302	100%
Los Angeles	South Bay Cities Association	Gardena city	603400	100%
Los Angeles	South Bay Cities Association	Gardena city	603500	100%
Los Angeles	South Bay Cities Association	Gardena city	603600	100%
Los Angeles	South Bay Cities Association	Hawthorne city	603702	100%
Los Angeles	South Bay Cities Association	Unincorporated	603702	100%
Los Angeles	South Bay Cities Association	Hawthorne city	603703	100%
Los Angeles	South Bay Cities Association	Hawthorne city	603704	100%
Los Angeles	South Bay Cities Association	Unincorporated	603704	100%
Los Angeles	South Bay Cities Association	Lawndale city	603800	100%
Los Angeles	South Bay Cities Association	Lawndale city	603900	100%
Los Angeles	South Bay Cities Association	Lawndale city	604000	100%
Los Angeles	South Bay Cities Association	Lawndale city	604100	100%
Los Angeles	South Bay Cities Association	El Segundo city	620003	1%

Urban Water Management Plan
Southwest System

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

Census Tract	County	Subregion	City	Population						Percentage of Tract in System	
				2005	2010	2015	2020	2025	2030		2035
540800	Los Angeles	Gateway Cities	Unincorporated	1,213	1,238	1,264	1,294	1,323	1,351	1,377	20%
540901	Los Angeles	Gateway Cities	Unincorporated	5,163	5,303	5,440	5,575	5,705	5,829	5,947	100%
540902	Los Angeles	Gateway Cities	Unincorporated	4,726	4,823	4,920	5,025	5,125	5,222	5,315	100%
541001	Los Angeles	Gateway Cities	Unincorporated	1,265	1,291	1,317	1,347	1,376	1,404	1,430	100%
541002	Los Angeles	South Bay Cities Association	Carson city	2,717	2,810	2,880	2,955	3,028	3,098	3,165	75%
541100	Los Angeles	Gateway Cities	Compton city	217	264	265	268	270	272	274	100%
541100	Los Angeles	Gateway Cities	Unincorporated	1,633	1,660	1,687	1,720	1,752	1,782	1,811	50%
541200	Los Angeles	Gateway Cities	Unincorporated	1,424	1,452	1,480	1,511	1,541	1,569	1,596	65%
542501	Los Angeles	Gateway Cities	Compton city	261	263	264	264	265	265	266	6%
542900	Los Angeles	Gateway Cities	Compton city	1,147	1,147	1,148	1,150	1,151	1,153	1,155	34%
543000	Los Angeles	Gateway Cities	Unincorporated	1,334	1,356	1,379	1,407	1,434	1,460	1,485	100%
543100	Los Angeles	South Bay Cities Association	Carson city	629	661	685	708	731	752	773	100%
543321	Los Angeles	South Bay Cities Association	Carson city	4,084	4,288	4,444	4,594	4,739	4,876	5,008	95%
Census Tract	County	Subregion	City	2005	2010	2015	2020	2025	2030	2035	Percentage of Tract in System
600100	Los Angeles	South Bay Cities Association	Unincorporated	6,753	6,929	7,050	7,189	7,324	7,453	7,577	100%
600201	Los Angeles	South Bay Cities Association	Unincorporated	4,601	4,719	4,800	4,894	4,985	5,072	5,155	100%
600202	Los Angeles	South Bay Cities Association	Unincorporated	6,875	7,026	7,131	7,261	7,387	7,507	7,623	100%
600301	Los Angeles	South Bay Cities Association	Unincorporated	8,055	8,221	8,337	8,485	8,628	8,766	8,898	100%
600302	Los Angeles	South Bay Cities Association	Unincorporated	3,678	3,755	3,810	3,878	3,944	4,008	4,068	100%
600400	Los Angeles	South Bay Cities Association	Unincorporated	4,537	4,647	4,723	4,814	4,902	4,986	5,067	100%
600501	Los Angeles	South Bay Cities Association	Inglewood city	2,759	2,775	2,816	2,828	2,837	2,851	2,863	100%
600502	Los Angeles	South Bay Cities Association	Inglewood city	671	676	686	689	691	694	697	28%
601402	Los Angeles	South Bay Cities Association	Inglewood city	2,245	2,257	2,288	2,297	2,304	2,315	2,325	40%
601501	Los Angeles	South Bay Cities Association	Inglewood city	410	412	416	417	418	420	421	100%
601501	Los Angeles	South Bay Cities Association	Unincorporated	4,150	4,278	4,364	4,459	4,551	4,639	4,724	100%
601502	Los Angeles	South Bay Cities Association	Unincorporated	4,284	4,415	4,503	4,599	4,692	4,782	4,867	100%
601600	Los Angeles	South Bay Cities Association	Hawthorne city	0	1	1	2	3	3	4	100%
601600	Los Angeles	South Bay Cities Association	Unincorporated	5,103	5,266	5,374	5,491	5,604	5,713	5,817	100%
601700	Los Angeles	South Bay Cities Association	Hawthorne city	133	171	200	229	257	284	310	100%
601700	Los Angeles	South Bay Cities Association	Inglewood city	770	774	785	788	791	795	798	100%
601700	Los Angeles	South Bay Cities Association	Unincorporated	5,262	5,371	5,448	5,545	5,639	5,729	5,815	100%
601801	Los Angeles	South Bay Cities Association	Inglewood city	2,619	2,638	2,685	2,698	2,708	2,725	2,739	100%
601801	Los Angeles	South Bay Cities Association	Unincorporated	1,454	1,492	1,517	1,547	1,576	1,604	1,630	100%
601802	Los Angeles	South Bay Cities Association	Inglewood city	170	173	179	181	183	185	187	100%
601802	Los Angeles	South Bay Cities Association	Unincorporated	4,889	5,015	5,101	5,201	5,297	5,391	5,479	100%
601900	Los Angeles	South Bay Cities Association	Inglewood city	6,622	6,662	6,765	6,794	6,816	6,851	6,882	100%
602002	Los Angeles	South Bay Cities Association	Hawthorne city	3,261	3,455	3,609	3,765	3,915	4,061	4,201	100%
602002	Los Angeles	South Bay Cities Association	Inglewood city	9	10	11	11	12	12	13	100%
602003	Los Angeles	South Bay Cities Association	Inglewood city	5,233	5,264	5,344	5,367	5,384	5,411	5,436	100%
602004	Los Angeles	South Bay Cities Association	Inglewood city	4,146	4,171	4,234	4,252	4,266	4,288	4,308	100%
602103	Los Angeles	South Bay Cities Association	Hawthorne city	1,448	1,609	1,736	1,866	1,993	2,115	2,232	19%
602104	Los Angeles	South Bay Cities Association	Hawthorne city	757	780	799	818	836	854	871	13%
602200	Los Angeles	South Bay Cities Association	Hawthorne city	725	796	853	916	978	1,037	1,094	20%
602200	Los Angeles	South Bay Cities Association	Unincorporated	3,665	3,944	4,119	4,271	4,418	4,559	4,694	100%
602301	Los Angeles	South Bay Cities Association	Hawthorne city	547	682	790	901	1,009	1,113	1,213	100%
602301	Los Angeles	South Bay Cities Association	Unincorporated	6,358	6,513	6,620	6,747	6,869	6,987	7,099	100%
602302	Los Angeles	South Bay Cities Association	Hawthorne city	2,983	3,145	3,273	3,399	3,522	3,641	3,755	100%
602501	Los Angeles	South Bay Cities Association	Hawthorne city	9,590	10,489	11,218	12,001	12,760	13,496	14,201	100%
602501	Los Angeles	South Bay Cities Association	Unincorporated	2,687	2,900	3,035	3,150	3,261	3,367	3,469	100%
602502	Los Angeles	South Bay Cities Association	Hawthorne city	9,107	9,528	9,863	10,195	10,517	10,828	11,127	100%
602503	Los Angeles	South Bay Cities Association	Hawthorne city	8,953	9,364	9,689	10,012	10,325	10,628	10,920	100%
602600	Los Angeles	South Bay Cities Association	Gardena city	8,682	8,855	9,321	9,633	9,964	10,282	10,595	100%
602600	Los Angeles	South Bay Cities Association	Unincorporated	0	0	0	0	0	0	0	100%
602700	Los Angeles	South Bay Cities Association	Hawthorne city	1,868	1,980	2,071	2,162	2,250	2,335	2,417	70%
602700	Los Angeles	South Bay Cities Association	Inglewood city	1	1	2	2	2	2	2	100%
602700	Los Angeles	South Bay Cities Association	Unincorporated	773	821	852	879	906	932	956	100%
602800	Los Angeles	South Bay Cities Association	Unincorporated	9,277	9,590	9,797	10,017	10,229	10,434	10,629	100%
602900	Los Angeles	South Bay Cities Association	Gardena city	4,437	4,527	4,771	4,937	5,112	5,281	5,446	100%
603001	Los Angeles	South Bay Cities Association	Gardena city	7,146	7,279	7,626	7,865	8,118	8,362	8,601	100%
603003	Los Angeles	South Bay Cities Association	Gardena city	8,644	8,798	9,218	9,502	9,804	10,093	10,377	100%
603004	Los Angeles	South Bay Cities Association	Gardena city	1,736	1,768	1,847	1,902	1,960	2,017	2,072	100%
603101	Los Angeles	South Bay Cities Association	Gardena city	4,375	4,461	4,694	4,853	5,023	5,185	5,344	100%
603102	Los Angeles	South Bay Cities Association	Gardena city	4,191	4,269	4,482	4,628	4,783	4,932	5,078	100%
603200	Los Angeles	South Bay Cities Association	Gardena city	2,341	2,386	2,510	2,598	2,692	2,782	2,870	100%
603301	Los Angeles	South Bay Cities Association	Gardena city	4,239	4,309	4,491	4,616	4,749	4,878	5,004	100%
603302	Los Angeles	South Bay Cities Association	Gardena city	3,830	3,900	4,091	4,221	4,360	4,492	4,622	100%
603400	Los Angeles	South Bay Cities Association	Gardena city	4,655	4,746	4,991	5,158	5,334	5,504	5,671	100%
603500	Los Angeles	South Bay Cities Association	Gardena city	3,138	3,202	3,373	3,489	3,612	3,730	3,845	100%
603600	Los Angeles	South Bay Cities Association	Gardena city	3,874	3,952	4,163	4,305	4,455	4,600	4,742	100%
603702	Los Angeles	South Bay Cities Association	Hawthorne city	70	77	81	87	93	98	104	100%
603702	Los Angeles	South Bay Cities Association	Unincorporated	5,226	5,309	5,370	5,456	5,540	5,620	5,696	100%
603703	Los Angeles	South Bay Cities Association	Hawthorne city	2,676	2,707	2,733	2,760	2,786	2,811	2,835	100%
603704	Los Angeles	South Bay Cities Association	Hawthorne city	3,012	3,433	3,774	4,140	4,495	4,838	5,168	100%
603704	Los Angeles	South Bay Cities Association	Unincorporated	4,359	4,683	4,888	5,066	5,237	5,402	5,559	100%
603800	Los Angeles	South Bay Cities Association	Lawndale city	8,771	9,067	9,287	9,519	9,745	9,962	10,172	100%
603900	Los Angeles	South Bay Cities Association	Lawndale city	7,503	7,754	7,940	8,137	8,328	8,513	8,691	100%
604000	Los Angeles	South Bay Cities Association	Lawndale city	9,973	10,355	10,638	10,933	11,218	11,494	11,760	100%
604100	Los Angeles	South Bay Cities Association	Lawndale city	7,054	7,301	7,483	7,675	7,861	8,040	8,213	100%
620003	Los Angeles	South Bay Cities Association	El Segundo city	1	1	2	2	2	2	2	1%
Total Population Based on SCAG				274,200	283,106	292,247	300,437	308,541	316,399	323,968	
SCAG Growth Rate						3%	3%	3%	3%	2%	

Southwest System

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

Census Tract	County	Subregion	City	Households						Percentage of Tract in System	
				2005	2010	2015	2020	2025	2030	2035	
540800	Los Angeles	Gateway Cities	Unincorporated	346	360	375	391	404	416	427	20%
540901	Los Angeles	Gateway Cities	Unincorporated	1,128	1,176	1,231	1,286	1,329	1,371	1,405	100%
540902	Los Angeles	Gateway Cities	Unincorporated	1,375	1,424	1,480	1,539	1,585	1,629	1,666	100%
541001	Los Angeles	Gateway Cities	Unincorporated	354	367	382	397	409	420	430	100%
541002	Los Angeles	South Bay Cities Association	Carson city	841	872	900	929	952	973	991	75%
541100	Los Angeles	Gateway Cities	Compton city	47	47	47	47	47	47	47	100%
541100	Los Angeles	Gateway Cities	Unincorporated	426	442	460	479	494	508	520	50%
541200	Los Angeles	Gateway Cities	Unincorporated	410	434	459	484	504	523	538	65%
542501	Los Angeles	Gateway Cities	Compton city	63	63	63	63	63	63	63	6%
542900	Los Angeles	Gateway Cities	Compton city	237	237	237	237	237	237	237	34%
543000	Los Angeles	Gateway Cities	Unincorporated	388	406	427	447	463	478	490	100%
543100	Los Angeles	South Bay Cities Association	Carson city	182	188	192	198	203	207	210	100%
543321	Los Angeles	South Bay Cities Association	Carson city	1,247	1,307	1,364	1,420	1,464	1,506	1,541	95%
Census Tract	County	Subregion	City	Households						Percentage of Tract in System	
				2005	2010	2015	2020	2025	2030	2035	
600100	Los Angeles	South Bay Cities Association	Unincorporated	1,921	1,980	2,033	2,090	2,135	2,178	2,214	100%
600201	Los Angeles	South Bay Cities Association	Unincorporated	1,197	1,235	1,267	1,302	1,330	1,356	1,378	100%
600202	Los Angeles	South Bay Cities Association	Unincorporated	1,947	2,001	2,049	2,101	2,141	2,180	2,212	100%
600301	Los Angeles	South Bay Cities Association	Unincorporated	2,114	2,168	2,217	2,275	2,321	2,364	2,400	100%
600302	Los Angeles	South Bay Cities Association	Unincorporated	1,079	1,110	1,137	1,162	1,181	1,199	1,215	100%
600400	Los Angeles	South Bay Cities Association	Unincorporated	1,490	1,534	1,572	1,610	1,640	1,669	1,693	100%
600501	Los Angeles	South Bay Cities Association	Inglewood city	925	934	956	969	975	983	988	100%
600502	Los Angeles	South Bay Cities Association	Inglewood city	190	192	195	198	199	201	202	28%
601402	Los Angeles	South Bay Cities Association	Inglewood city	549	554	567	575	579	584	587	40%
601501	Los Angeles	South Bay Cities Association	Inglewood city	109	111	118	122	124	127	128	100%
601501	Los Angeles	South Bay Cities Association	Unincorporated	990	1,017	1,042	1,073	1,098	1,121	1,141	100%
601502	Los Angeles	South Bay Cities Association	Unincorporated	857	873	888	906	921	936	947	100%
601600	Los Angeles	South Bay Cities Association	Hawthorne city	0	1	1	2	2	3	3	100%
601600	Los Angeles	South Bay Cities Association	Unincorporated	1,120	1,145	1,169	1,195	1,215	1,235	1,252	100%
601700	Los Angeles	South Bay Cities Association	Hawthorne city	32	36	39	42	45	47	50	100%
601700	Los Angeles	South Bay Cities Association	Inglewood city	185	187	192	195	196	198	199	100%
601700	Los Angeles	South Bay Cities Association	Unincorporated	1,095	1,112	1,129	1,156	1,178	1,199	1,216	100%
601801	Los Angeles	South Bay Cities Association	Inglewood city	531	539	557	568	573	580	584	100%
601801	Los Angeles	South Bay Cities Association	Unincorporated	273	278	282	288	293	297	301	100%
601802	Los Angeles	South Bay Cities Association	Inglewood city	30	31	33	34	34	35	36	100%
601802	Los Angeles	South Bay Cities Association	Unincorporated	972	991	1,009	1,031	1,049	1,066	1,080	100%
601900	Los Angeles	South Bay Cities Association	Inglewood city	1,409	1,425	1,462	1,484	1,495	1,509	1,518	100%
602002	Los Angeles	South Bay Cities Association	Hawthorne city	823	846	867	890	907	924	938	100%
602002	Los Angeles	South Bay Cities Association	Inglewood city	1	1	1	1	1	1	1	100%
602003	Los Angeles	South Bay Cities Association	Inglewood city	1,215	1,227	1,258	1,276	1,285	1,296	1,303	100%
602004	Los Angeles	South Bay Cities Association	Inglewood city	1,029	1,040	1,065	1,081	1,089	1,098	1,104	100%
602103	Los Angeles	South Bay Cities Association	Hawthorne city	407	414	422	429	435	441	446	19%
602104	Los Angeles	South Bay Cities Association	Hawthorne city	222	228	235	241	246	251	255	13%
602200	Los Angeles	South Bay Cities Association	Hawthorne city	196	196	197	198	198	198	199	20%
602200	Los Angeles	South Bay Cities Association	Unincorporated	1,152	1,192	1,225	1,254	1,276	1,298	1,316	100%
602301	Los Angeles	South Bay Cities Association	Hawthorne city	166	169	172	174	176	178	180	100%
602301	Los Angeles	South Bay Cities Association	Unincorporated	1,816	1,873	1,920	1,960	1,991	2,020	2,045	100%
602302	Los Angeles	South Bay Cities Association	Hawthorne city	1,111	1,132	1,152	1,172	1,188	1,203	1,216	100%
602501	Los Angeles	South Bay Cities Association	Hawthorne city	2,892	2,934	2,973	3,013	3,044	3,075	3,100	100%
602501	Los Angeles	South Bay Cities Association	Unincorporated	592	607	620	634	645	655	664	100%
602502	Los Angeles	South Bay Cities Association	Hawthorne city	3,459	3,509	3,557	3,608	3,648	3,687	3,718	100%
602503	Los Angeles	South Bay Cities Association	Hawthorne city	3,323	3,376	3,427	3,481	3,523	3,563	3,597	100%
602600	Los Angeles	South Bay Cities Association	Gardena city	2,776	2,804	2,954	3,061	3,143	3,222	3,285	100%
602600	Los Angeles	South Bay Cities Association	Unincorporated	0	0	0	0	0	0	0	100%
602700	Los Angeles	South Bay Cities Association	Hawthorne city	605	616	627	639	648	657	664	70%
602700	Los Angeles	South Bay Cities Association	Inglewood city	1	1	1	1	1	1	1	100%
602700	Los Angeles	South Bay Cities Association	Unincorporated	237	245	253	259	265	270	274	100%
602800	Los Angeles	South Bay Cities Association	Unincorporated	2,474	2,567	2,647	2,723	2,783	2,840	2,888	100%
602900	Los Angeles	South Bay Cities Association	Gardena city	1,268	1,280	1,348	1,397	1,434	1,471	1,499	100%
603001	Los Angeles	South Bay Cities Association	Gardena city	2,238	2,258	2,367	2,447	2,508	2,567	2,614	100%
603003	Los Angeles	South Bay Cities Association	Gardena city	2,886	2,912	3,053	3,155	3,234	3,311	3,371	100%
603004	Los Angeles	South Bay Cities Association	Gardena city	663	670	705	730	750	769	784	100%
603101	Los Angeles	South Bay Cities Association	Gardena city	1,571	1,586	1,667	1,726	1,772	1,816	1,851	100%
603102	Los Angeles	South Bay Cities Association	Gardena city	1,437	1,450	1,524	1,578	1,620	1,660	1,692	100%
603200	Los Angeles	South Bay Cities Association	Gardena city	930	939	989	1,025	1,054	1,081	1,102	100%
603301	Los Angeles	South Bay Cities Association	Gardena city	1,657	1,672	1,755	1,814	1,861	1,905	1,940	100%
603302	Los Angeles	South Bay Cities Association	Gardena city	1,429	1,441	1,509	1,559	1,597	1,634	1,663	100%
603400	Los Angeles	South Bay Cities Association	Gardena city	1,514	1,530	1,613	1,672	1,718	1,762	1,797	100%
603500	Los Angeles	South Bay Cities Association	Gardena city	932	941	985	1,018	1,042	1,066	1,085	100%
603600	Los Angeles	South Bay Cities Association	Gardena city	1,321	1,335	1,406	1,457	1,497	1,534	1,565	100%
603702	Los Angeles	South Bay Cities Association	Hawthorne city	5	5	5	5	5	6	6	100%
603702	Los Angeles	South Bay Cities Association	Unincorporated	1,695	1,744	1,785	1,821	1,849	1,876	1,899	100%
603703	Los Angeles	South Bay Cities Association	Hawthorne city	871	905	938	974	1,002	1,030	1,052	100%
603704	Los Angeles	South Bay Cities Association	Hawthorne city	856	856	856	856	856	857	857	100%
603704	Los Angeles	South Bay Cities Association	Unincorporated	1,318	1,388	1,451	1,520	1,575	1,627	1,671	100%
603800	Los Angeles	South Bay Cities Association	Lawndale city	2,466	2,525	2,582	2,642	2,689	2,734	2,772	100%
603900	Los Angeles	South Bay Cities Association	Lawndale city	2,348	2,401	2,452	2,505	2,547	2,587	2,620	100%
604000	Los Angeles	South Bay Cities Association	Lawndale city	2,811	2,885	2,955	3,028	3,085	3,140	3,185	100%
604100	Los Angeles	South Bay Cities Association	Lawndale city	1,962	2,007	2,049	2,094	2,128	2,162	2,190	100%
620003	Los Angeles	South Bay Cities Association	El Segundo city	0	0	0	0	0	0	0	1%
Total Population Based on SCAG				80,285	81,977	84,526	86,778	88,509	90,187	91,547	
SCAG Growth Rate						3%	3%	2%	2%	2%	

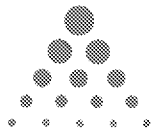
Southwest System

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

Census Tract	County	Subregion	City	Employment							Percentage of Tract in System
				2005	2010	2015	2020	2025	2030	2035	
540800	Los Angeles	Gateway Cities	Unincorporated	174	183	190	194	199	204	209	20%
540901	Los Angeles	Gateway Cities	Unincorporated	379	619	810	930	1,072	1,223	1,368	100%
540902	Los Angeles	Gateway Cities	Unincorporated	3,326	3,578	3,779	3,910	4,064	4,229	4,386	100%
541001	Los Angeles	Gateway Cities	Unincorporated	7,584	7,687	7,772	7,830	7,899	7,973	8,043	100%
541002	Los Angeles	South Bay Cities Association	Carson city	5,774	5,808	5,835	5,852	5,870	5,891	5,911	75%
541100	Los Angeles	Gateway Cities	Compton city	59	60	61	61	62	63	63	100%
541100	Los Angeles	Gateway Cities	Unincorporated	861	874	885	892	901	910	919	50%
541200	Los Angeles	Gateway Cities	Unincorporated	168	170	172	174	175	176	178	65%
542501	Los Angeles	Gateway Cities	Compton city	5	6	7	7	8	8	9	6%
542900	Los Angeles	Gateway Cities	Compton city	32	34	37	38	40	42	44	34%
543000	Los Angeles	Gateway Cities	Unincorporated	290	342	383	409	440	472	503	100%
543100	Los Angeles	South Bay Cities Association	Carson city	4,145	4,187	4,222	4,246	4,274	4,305	4,334	100%
543321	Los Angeles	South Bay Cities Association	Carson city	2,191	2,263	2,320	2,358	2,402	2,448	2,494	95%
Census Tract	County	Subregion	City	Employment							Percentage of Tract in System
				2005	2010	2015	2020	2025	2030	2035	
600100	Los Angeles	South Bay Cities Association	Unincorporated	194	205	213	218	224	230	236	100%
600201	Los Angeles	South Bay Cities Association	Unincorporated	471	483	493	499	506	513	520	100%
600202	Los Angeles	South Bay Cities Association	Unincorporated	393	400	405	409	413	417	422	100%
600301	Los Angeles	South Bay Cities Association	Unincorporated	356	367	375	380	387	394	400	100%
600302	Los Angeles	South Bay Cities Association	Unincorporated	685	696	704	709	716	722	729	100%
600400	Los Angeles	South Bay Cities Association	Unincorporated	352	359	364	367	370	374	378	100%
600501	Los Angeles	South Bay Cities Association	Inglewood city	232	263	288	304	322	342	361	100%
600502	Los Angeles	South Bay Cities Association	Inglewood city	147	150	151	153	154	156	157	28%
601402	Los Angeles	South Bay Cities Association	Inglewood city	968	976	982	986	990	995	1,000	40%
601501	Los Angeles	South Bay Cities Association	Inglewood city	411	437	458	472	488	505	521	100%
601501	Los Angeles	South Bay Cities Association	Unincorporated	487	513	533	546	561	576	591	100%
601502	Los Angeles	South Bay Cities Association	Unincorporated	513	522	530	535	540	546	552	100%
601600	Los Angeles	South Bay Cities Association	Hawthorne city	95	97	99	100	102	103	105	100%
601600	Los Angeles	South Bay Cities Association	Unincorporated	862	881	897	907	919	931	944	100%
601700	Los Angeles	South Bay Cities Association	Hawthorne city	221	228	233	236	240	244	247	100%
601700	Los Angeles	South Bay Cities Association	Inglewood city	66	68	70	71	72	73	75	100%
601700	Los Angeles	South Bay Cities Association	Unincorporated	326	336	343	347	352	357	362	100%
601801	Los Angeles	South Bay Cities Association	Inglewood city	402	405	407	408	409	410	411	100%
601801	Los Angeles	South Bay Cities Association	Unincorporated	27	27	27	27	27	27	27	100%
601802	Los Angeles	South Bay Cities Association	Inglewood city	121	129	135	139	144	149	154	100%
601802	Los Angeles	South Bay Cities Association	Unincorporated	665	700	728	746	767	789	811	100%
601900	Los Angeles	South Bay Cities Association	Inglewood city	723	742	756	765	776	787	798	100%
602002	Los Angeles	South Bay Cities Association	Hawthorne city	50	58	65	70	75	80	86	100%
602002	Los Angeles	South Bay Cities Association	Inglewood city	2	3	3	3	3	4	4	100%
602003	Los Angeles	South Bay Cities Association	Inglewood city	207	230	248	259	272	287	300	100%
602004	Los Angeles	South Bay Cities Association	Inglewood city	459	485	506	518	533	549	565	100%
602103	Los Angeles	South Bay Cities Association	Hawthorne city	239	242	245	247	249	251	253	19%
602104	Los Angeles	South Bay Cities Association	Hawthorne city	45	50	54	56	59	61	64	13%
602200	Los Angeles	South Bay Cities Association	Hawthorne city	177	184	189	193	197	202	206	20%
602200	Los Angeles	South Bay Cities Association	Unincorporated	965	999	1,027	1,044	1,065	1,087	1,109	100%
602301	Los Angeles	South Bay Cities Association	Hawthorne city	2,173	2,195	2,213	2,224	2,237	2,251	2,264	100%
602301	Los Angeles	South Bay Cities Association	Unincorporated	276	278	280	282	283	285	286	100%
602302	Los Angeles	South Bay Cities Association	Hawthorne city	1,772	1,784	1,793	1,800	1,807	1,815	1,823	100%
602501	Los Angeles	South Bay Cities Association	Hawthorne city	6,146	6,225	6,288	6,329	6,376	6,426	6,474	100%
602501	Los Angeles	South Bay Cities Association	Unincorporated	308	311	313	315	318	320	323	100%
602502	Los Angeles	South Bay Cities Association	Hawthorne city	535	545	554	559	566	573	579	100%
602503	Los Angeles	South Bay Cities Association	Hawthorne city	680	722	755	775	799	825	850	100%
602600	Los Angeles	South Bay Cities Association	Gardena city	3,212	3,241	3,263	3,277	3,294	3,311	3,328	100%
602600	Los Angeles	South Bay Cities Association	Unincorporated	0	0	0	0	0	0	0	100%
602700	Los Angeles	South Bay Cities Association	Hawthorne city	860	877	890	898	908	918	928	70%
602700	Los Angeles	South Bay Cities Association	Inglewood city	0	0	0	0	0	0	0	100%
602700	Los Angeles	South Bay Cities Association	Unincorporated	296	301	305	307	310	313	316	100%
602800	Los Angeles	South Bay Cities Association	Unincorporated	1,920	1,950	1,974	1,990	2,008	2,027	2,046	100%
602900	Los Angeles	South Bay Cities Association	Gardena city	12,292	12,386	12,462	12,512	12,572	12,635	12,696	100%
603001	Los Angeles	South Bay Cities Association	Gardena city	2,033	2,102	2,157	2,193	2,234	2,279	2,322	100%
603003	Los Angeles	South Bay Cities Association	Gardena city	2,171	2,226	2,270	2,297	2,329	2,363	2,395	100%
603004	Los Angeles	South Bay Cities Association	Gardena city	974	977	980	981	983	985	987	100%
603101	Los Angeles	South Bay Cities Association	Gardena city	1,759	1,793	1,821	1,838	1,858	1,879	1,900	100%
603102	Los Angeles	South Bay Cities Association	Gardena city	523	565	598	618	643	668	693	100%
603200	Los Angeles	South Bay Cities Association	Gardena city	1,444	1,482	1,512	1,532	1,554	1,579	1,602	100%
603301	Los Angeles	South Bay Cities Association	Gardena city	1,526	1,549	1,567	1,579	1,593	1,607	1,621	100%
603302	Los Angeles	South Bay Cities Association	Gardena city	1,665	1,699	1,725	1,742	1,762	1,783	1,803	100%
603400	Los Angeles	South Bay Cities Association	Gardena city	1,263	1,284	1,302	1,312	1,325	1,339	1,352	100%
603500	Los Angeles	South Bay Cities Association	Gardena city	652	669	682	690	700	710	720	100%
603600	Los Angeles	South Bay Cities Association	Gardena city	821	845	864	876	891	906	920	100%
603702	Los Angeles	South Bay Cities Association	Hawthorne city	69	70	71	71	72	72	73	100%
603702	Los Angeles	South Bay Cities Association	Unincorporated	2,284	2,310	2,330	2,343	2,359	2,375	2,391	100%
603703	Los Angeles	South Bay Cities Association	Hawthorne city	130	134	137	139	141	143	146	100%
603704	Los Angeles	South Bay Cities Association	Hawthorne city	219	226	231	235	239	243	248	100%
603704	Los Angeles	South Bay Cities Association	Unincorporated	388	399	408	414	421	428	434	100%
603800	Los Angeles	South Bay Cities Association	Lawndale city	1,570	1,622	1,664	1,689	1,719	1,751	1,782	100%
603900	Los Angeles	South Bay Cities Association	Lawndale city	2,707	2,793	2,862	2,905	2,957	3,011	3,064	100%
604000	Los Angeles	South Bay Cities Association	Lawndale city	712	745	772	788	808	828	848	100%
604100	Los Angeles	South Bay Cities Association	Lawndale city	622	618	616	616	616	616	616	100%
620003	Los Angeles	South Bay Cities Association	El Segundo city	439	443	446	448	450	452	454	1%
Total Population Based on SCAG				86,329	88,394	90,042	91,096	92,343	93,661	94,937	
SCAG Growth Rate						2%	1%	1%	1%	1%	

Appendix H

Documentation of submittal to Library, Cities and Counties



Golden State
Water Company
A Subsidiary of American States Water Company

July 25, 2011

Peter Brostrom, Department of Water Resources
Statewide Integrated Water Management
Water Use and Efficiency Branch
901 P Street
Sacramento, CA 95814

Subject: Submittal of the Golden State Water Company (GSWC) 2010 Urban Water
Management Plan (UWMP) – Barstow, Bay Point, Cordova and Southwest Systems

Dear Mr. Brostrom:

This transmittal letter submits the GSWC 2010 UWMPs for the Barstow, Bay Point, Cordova and Southwest Systems. GSWC prepared these UWMPs consistent with the Water Conservation Act of 2009 (Water Code sections 10608.12 to 10608.64) and the Urban Water Management Planning Act (Water Code sections 10610 to 10656).

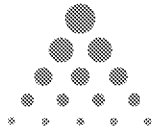
GSWC adopted the UWMPs on July 1, 2011. Pursuant to California Water Code Sections 10620(d) and 10644, enclosed are one hard copy and one PDF version of the GSWC 2010 UWMPs for the Barstow, Bay Point, Cordova and Southwest Systems.

Please contact me at (916) 853-3612 or at egisler@gswater.com with any questions on the 2010 GSWC Urban Water Management Plans.

Very truly yours,

GOLDEN STATE WATER COMPANY

Ernest A. Gisler
Planning Manager



Golden State

Water Company

A Subsidiary of American States Water Company

July 25, 2011

California State Library
Government Publications Section
900 N Street
Sacramento, CA 95814

Subject: Submittal of the Golden State Water Company (GSWC) 2010 Urban Water Management Plan (UWMP) – Barstow, Bay Point, Cordova and Southwest Systems

To Whom It May Concern:

This transmittal letter submits the GSWC 2010 UWMPs for the Barstow, Bay Point, Cordova and Southwest Systems. GSWC prepared these UWMPs consistent with the Water Conservation Act of 2009 (Water Code sections 10608.12 to 10608.64) and the Urban Water Management Planning Act (Water Code sections 10610 to 10656).

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Please contact me at (916) 853-3612 or at eagisler@gswater.com with any questions on the 2010 GSWC Urban Water Management Plans.

Very truly yours,

GOLDEN STATE WATER COMPANY

Ernest A. Gisler
Planning Manager



July 28, 2011

City of Carson
Sheri Repp-Loadsman
Planning Manager
P.O. Box 6234
701 E. Carson St.
Carson, CA 90745

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 June 9, 2011. The 2010 UWMP was adopted, July 1, 2011, in accordance with the Urban Water Management Planning Act and filed with DWR and the California State Library.

Pursuant to Section 10644(a) of the California Water Code, GSWC is required to file a copy of the adopted 2010 UWMP with any city or county within which GSWC provided water. Enclosed for your files is one copy of GSWC's adopted 2010 UWMP. It is also on our website at www.gswater.com.

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

Sincerely,

A handwritten signature in black ink, which appears to read "Ernest A. Gisler". The signature is written in a cursive, flowing style.

Ernest A. Gisler
Planning Manager

Enclosure



July 28, 2011

City of Los Angeles
Con Howe
Director of Planning
200 N. Spring Street, Room 303
Los Angeles, CA 90012

RE: Golden State Water Company- 2010 Urban Water Management Plan

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Sincerely,

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Ernest A. Gisler
Planning Manager

Enclosure



July 28, 2011

City of Los Angeles
Gail Goldberg
General Manager City Planning
200 N. Spring Street, Room 303
Los Angeles, CA 90012

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Ernest A. Gisler
Planning Manager

Enclosure



July 28, 2011

County of Los Angeles
Gail Farber
Director of Public Works
P.O. Box 1460
Alhambra, CA 91802-1460

RE: Golden State Water Company- 2010 Urban Water Management Plan

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Sincerely,

Ernest A. Gisler
Planning Manager

Enclosure



July 28, 2011

City of Carson
Cliff Graves
Economic Development General Manager
P.O. Box 6234
701 E. Carson St.
Carson, CA 90745

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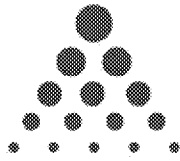
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Ernest A. Gisler
Planning Manager

Enclosure



Golden State
Water Company

A Subsidiary of American States Water Company

July 28, 2011

City of Compton
Derek Hull
Director of Planning Manager
205 South Willowbrook Avenue
Compton, CA 90220

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 June 9, 2011. The 2010 UWMP was adopted, July 1, 2011, in accordance with the Urban Water Management Planning Act and filed with DWR and the California State Library.

Pursuant to Section 10644(a) of the California Water Code, GSWC is required to file a copy of the adopted 2010 UWMP with any city or county within which GSWC provided water. Enclosed for your files is one copy of GSWC's adopted 2010 UWMP. It is also on our website at www.gswater.com.

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

Sincerely,

Ernest A. Gisler
Planning Manager

Enclosure



July 28, 2011

City of El Segundo
Kimberly Christensen
Planning Manager
350 Main Street
El Segundo, CA 90220

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 June 9, 2011. The 2010 UWMP was adopted, July 1, 2011, in accordance with the Urban Water Management Planning Act and filed with DWR and the California State Library.

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Sincerely,

Ernest A. Gisler
Planning Manager

Enclosure



July 28, 2011

City of El Segundo
Greg Carpenter
Planning Manager
350 Main Street
El Segundo, CA 90220

RE: Golden State Water Company- 2010 Urban Water Management Plan

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Sincerely,

Ernest A. Gisler
Planning Manager

Enclosure



July 28, 2011

City of Gardena
Mitchell Landsdell
City Manager
1700 West 162nd Street, Room 1
Gardena, CA 90247

RE: Golden State Water Company- 2010 Urban Water Management Plan

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

Sincerely,

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

Ernest A. Gisler
Planning Manager

Enclosure



July 28, 2011

City of Hawthorne
Gregg McClain
Planning Department Director
4455 West 126th Street
Hawthorne, CA 90250

RE: Golden State Water Company- 2010 Urban Water Management Plan

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

Sincerely,

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Ernest A. Gisler
Planning Manager

Enclosure



July 28, 2011

City of Inglewood
Wanda Williams
Planning Manager
One Manchester Boulevard
Inglewood, CA 90301

RE: Golden State Water Company- 2010 Urban Water Management Plan

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Sincerely,

Ernest A. Gisler
Planning Manager

Enclosure



July 28, 2011

City of Lawndale
Otis Ginoza
Deputy City Manager
14717 Burin Ave
Lawndale, CA 90260

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 June 9, 2011. The 2010 UWMP was adopted, July 1, 2011, in accordance with the Urban Water Management Planning Act and filed with DWR and the California State Library.

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Ernest A. Gisler
Planning Manager

Enclosure

Appendix I

Documentation of Water Use Projections Submittal



11 February 2011

Mr. Dave Hill
Water Resource Manager
Central Basin Municipal Water District
6252 Telegraph Road
Commerce, CA 90040

Subject: Golden State Water Company - Artesia, Bell - Bell Gardens, Florence - Graham, Norwalk, and Southwest System
2010 Urban Water Management Plan Preparation Notification and Supply Reliability Information Request

Dear Mr. Hill:

Golden State Water Company (GSWC) is currently preparing its 2010 Urban Water Management Plan (UWMP) for the Artesia, Bell - Bell Gardens, Florence - Graham, Norwalk, and Southwest System as required by the Urban Water Management Planning Act (Act). Since Central Basin 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 Artesia, Bell - Bell Gardens, Florence - Graham, Norwalk, and Southwest service area (if applicable) (Table 7)
8. Describe any regional desalination opportunities, if any for the Artesia, Bell - Bell Gardens, Florence - Graham, Norwalk, and Southwest 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



11 February 2011

Mar Serna
Engineering Manager
West Basin Municipal Water District
17140 S. Avalon Blvd., Suite 210
Carson, CA 90746-1296

Subject: Golden State Water Company - Culver City and Southwest System
2010 Urban Water Management Plan Preparation Notification and Supply Reliability Information
Request

Dear Mar Serna:

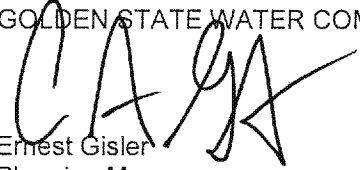
Golden State Water Company (GSWC) is currently preparing its 2010 Urban Water Management Plan (UWMP) for the Culver City and Southwest System as required by the Urban Water Management Planning Act (Act). Since West Basin Municipal Water District is a wholesale water supplier to GSWC, water use projections 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 Culver City and Southwest service area (if applicable) (Table 7)
8. Describe any regional desalination opportunities, if any for the Culver City and Southwest 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

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	<i>Wholesalers:</i> Include an assessment of present and proposed future measures, programs, and policies to help achieve the water use reductions. <i>Retailers:</i> Conduct at least one public hearing that includes general discussion of the urban retail water supplier's implementation plan for complying with the Water Conservation Bill of 2009.	10608.36 10608.26(a)	Retailers and wholesalers have slightly different requirements	4.6	4-12
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	3-9
33	Provide documentation that either the retail agency provided the wholesale agency with water use projections for at least 20 years, if the UWMP agency is a retail agency, OR, if a wholesale agency, it provided its urban retail customers with future planned and existing water source available to it from the wholesale agency during the required water-year types	10631(k)	Average year, single dry year, multiple dry years for 2015, 2020, 2025, and 2030.	3.7 Appendix I	3-15
34	Include projected water use for single-family and multifamily residential housing needed for lower income households, as identified in the housing element of any city, county, or city and county in the service area of the supplier.	10631.1(a)		3.8	3-16
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	4-5
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	4-5
16	Describe the groundwater basin.	10631(b)(2)		4.3	4-5
17	Indicate whether the groundwater basin is adjudicated? Include a copy of the court order or decree.	10631(b)(2)		4.3 & Appendix F	4-5
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	4-5
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	4-5
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	4-5
24	Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis.	10631(d)		4.4	4-11

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	4-11
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	4-13
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	4-15
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	4-16
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	4-16
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	4-16
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	4-18
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	4-15
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	4-19

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	4-19
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)		6.1.4	6-8
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	8-9
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	6-9
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.

