



Golden State
Water Company
A Subsidiary of American States Water Company

Final Report

2010 Urban Water Management Plan

Culver City

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



August 2011

Kennedy/Jenks Consultants

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San Dimas, CA 91773

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Kennedy/Jenks Consultants

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Notice of Adoption

A meeting to solicit public comments on the 2010 Urban Water Management Plan for the Golden State Water Company Culver City System was held on August 10, 2011 at 6 p.m. at the Veterans Memorial Complex in Culver City, California. Notice of this meeting was published in accordance with Section 6066 of the Government Code in the Daily Breeze on June 8, 15, and 22, 2011.

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

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

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

August 31, 2011

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Abbreviations

ac-ft	acre-feet
ac-ft/yr or AFY	acre-feet per year
Act	Urban Water Management Planning Act
AMR	automatic meter reading
APA	allowed pumping allocation
AWWA	American Water Works Association
BMPs	best management practices
BTEX	benzene, toluene, ethylbenzene, and total xylenes
Cal EMA	California Emergency Management Agency
CAL Green Code	2010 California Green Building Standards Code
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
DMM	Demand Management Measure
DOF	Department of Finance
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
ECLWRF	Edward C. Little Water Recycling Facility
ERP	Emergency Response Plan
ETo	evapotranspiration
Fe	iron
GIS	Geographic Information System
gpcd	gallons per capita day
gpd	gallons per day
gpm	U.S. gallons per minute
GSWC	Golden State Water Company
HCD	Housing and Community Development
HECW	high efficiency clothes washers
HET	high efficiency toilets
ILI	infrastructure leakage index
IRP	Integrated Resources Plan
MAF	million acre-feet per year
MCLs	maximum contaminant levels
Metropolitan	Metropolitan Water District of Southern California
MF	multi-family
mgd	million gallons per day
Mn	manganese
MOU	memorandum of understanding (regarding urban water conservation in California)
MTBE	methyl tertiary butyl ether
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
SDWA	Safe Drinking Water Act
SF	single-family
SWP	State Water Project
TAF	thousand acre-feet per year
TDS	total dissolved solids
ULFT	ultra-low-flush-toilet
USEPA	U.S. Environmental Protection Agency
UWMP	Urban Water Management Plan
VOCs	volatile organic compounds
WAP	Water Action Plan
WBIC	weather based irrigation controllers
WBMWD	West Basin Municipal Water District
WLCD	Water Loss Control Department
WRCC	Western Regional Climate Center
WSAP	Water Supply Allocation Plan
WSDM Plan	Water Surplus and Drought Management Plan
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) Culver City System in compliance with Division 6, Part 2.6, of the California Water Code, Sections 10608 through 10657 as last amended by Senate Bill No. 7 (SBX7-7), the Water Conservation Act of 2009. The original bill requiring preparation of an UWMP was enacted in 1983. SBX7-7, which became law in November 2009, requires increased emphasis on water demand management and requires the state to achieve a 20 percent reduction in urban per capita water use by December 31, 2020.

Urban water suppliers having more than 3,000 service connections or water use of more than 3,000 acre-feet per year (ac-ft/yr) for retail or wholesale 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 Culver City System in 1985, 1990, 1995, 2000, and 2005. This 2010 UWMP is an update to the 2005 plan.

GSWC water use targets for the Culver City System were developed based on Compliance Method 3, 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

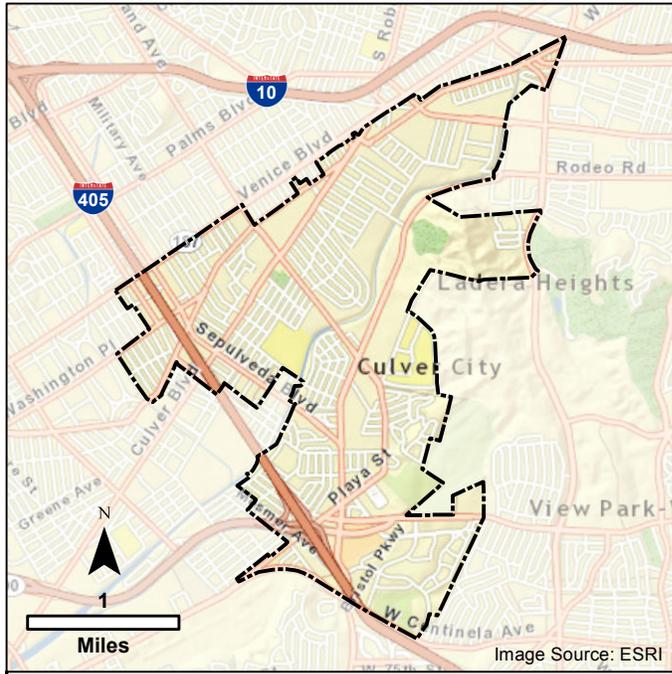
GSWC is an investor-owned public utility company which owns 38 water systems throughout California regulated by the California Public Utilities Commission (CPUC). This UWMP has been prepared for the Culver City System.

The Culver City System, located in Los Angeles County, serves most of Culver City and part of the neighboring City of Los Angeles. The Culver City service area is primarily characterized by residential land use, with some commercial and industrial land use. Figure 1-1 illustrates the location of the Culver City System.

1.3 Notice of Document Use

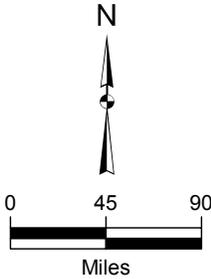
GSWC is committed to implementation of the projects, plans, and discussions provided within this document. However, it is important to note that execution of the plan is contingent upon the regulatory limitations and approval of the CPUC and other state agencies. Additionally, this document merely presents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

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Legend

 Culver City Service Area



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2010 Urban Water Management Plan

**Culver City System
Location Map**

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August 2011

Figure 1-1

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1.4 Public Utility Commission 2010 Water Action Plan

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

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

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

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

1.5 Agency Coordination and Public Participation

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

Section 10620.

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

Section 10621.

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

Section 10635.

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

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

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

Table 1-1: Coordination with Agencies							
Agency	Contacted for Assistance	Participated in UWMP Development	Commented on the Draft	Attended Public Meetings	Received Copy of the Draft	Sent Notice of Intent to Adopt	Not Involved/ No Information
Southern California Association of Governments	✓						
City of Culver City	✓					✓	
City of Los Angeles	✓					✓	
West Basin Municipal Water District	✓				✓	✓	
Los Angeles County Sanitation District	✓	✓				✓	

Note:

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

1.6 Plan Adoption and Submittal

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

Section 10621.

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

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

Section 10644.

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

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

A public hearing to review the 2010 Culver City System UWMP was held on August 10, 2011 at the Veterans Memorial Center in Culver City, California. This public session was held for review and comment on the draft UWMP before approval by GSWC. Legal public notices for the public hearing and availability of the plan for review and comment were published in advance in the local newspapers in accordance with Government Code Section 6066. Notifications were also posted to GSWC's website (www.gswater.com).

In addition, notifications of preparation of the plan were provided to cities and counties within which GSWC provides water at least 60 days in advance of the public hearing as required by the Act. Copies of the draft plan were available to the public for review at GSWC's Culver City 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 Culver City 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 Culver City 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 Culver City 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

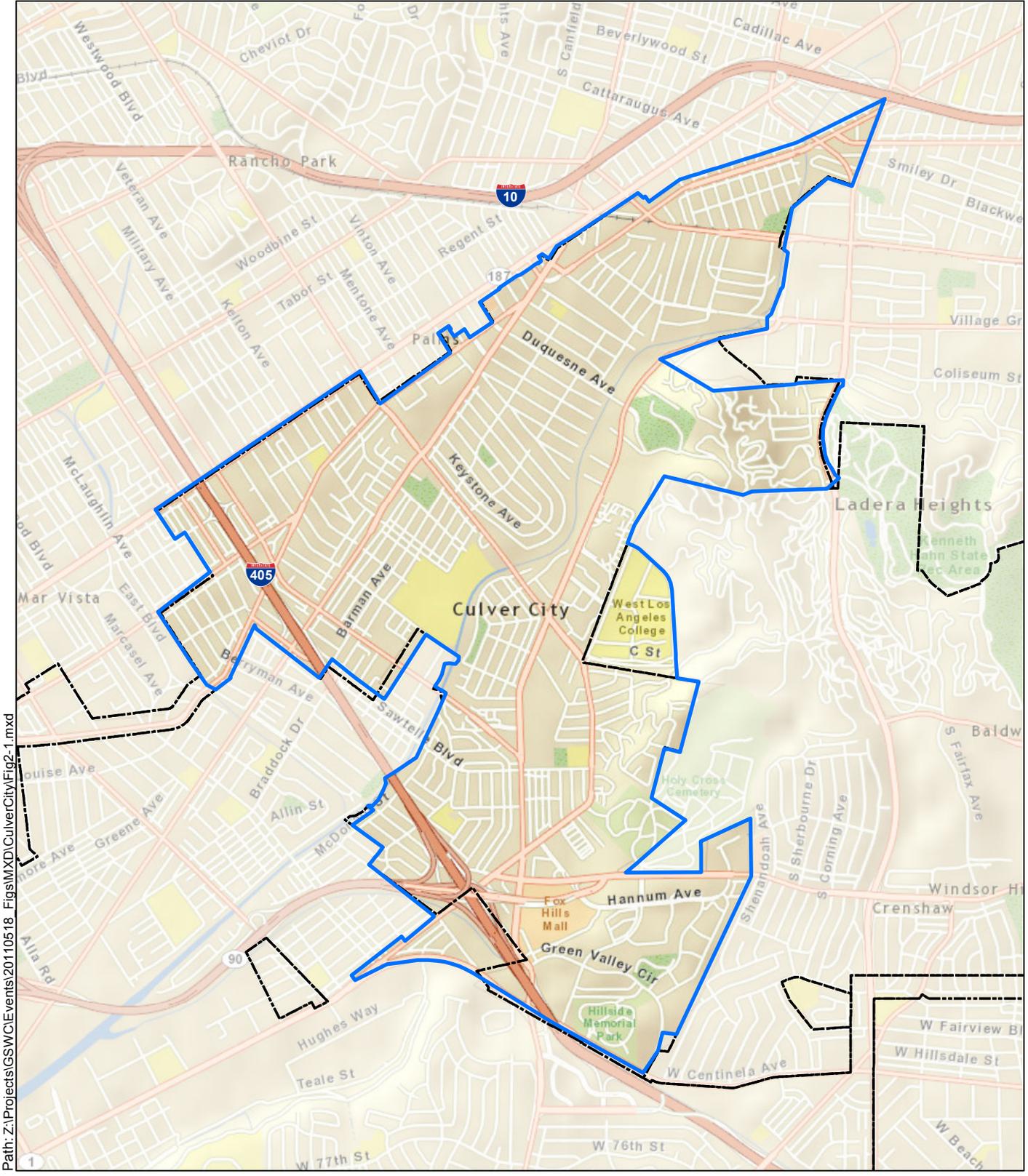
The Culver City System is located in Los Angeles County and serves most of Culver City and parts of the neighboring City of Los Angeles. Figure 2-1 illustrates the customer service area of Culver City System. The service area is primarily characterized by residential land use, with some commercial and industrial land use.

2.2 Demographics

The City of Culver City was chosen as demographically representative of the Culver City System. According to 2000 U.S. Census Data, the median age of Culver City's residents is 39.1 years. Culver City has an average household size of 2.31 and a median household income of approximately \$51,792 in 1999 dollars or \$67,640 in 2010 dollars.

General Plan or land use information is not available for the Culver City System. Based on Culver City's customer service area and review of recent satellite imagery, the system appears to be near "build-out", i.e. the planning area has reached its maximum population. There are only a few undeveloped individual parcels in the system and any growth occurring will likely be a combination of urban expansion, redevelopment, and in-fill. In a built-out or nearly built-out area, changes are typically minor and difficult to predict.

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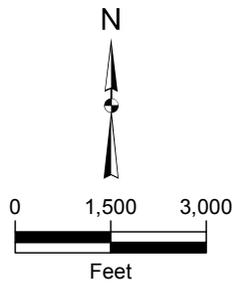


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Image Source: ESRI

Legend

-  Culver City System Boundary
-  City Boundary



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

Culver City System Service Area

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 August 2011

Figure 2-1

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2.3 Population, Housing and Employment

Population, housing, and employment projections were developed for the Culver City System using the Southern California Association of Governments (SCAG) population, housing and employment data. SCAG recently updated its projections for population, household, and employment growth through the year 2035 using the 2008 “Integrated Growth Forecasting” process used in the 2008 Regional Transportation Plan (2008 RTP). SCAG’s methodology is described below, followed by the derivation of population projections for the Culver City 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 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 Culver City 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 2005 to 2035. The Culver City 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 Culver City 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 Culver City 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

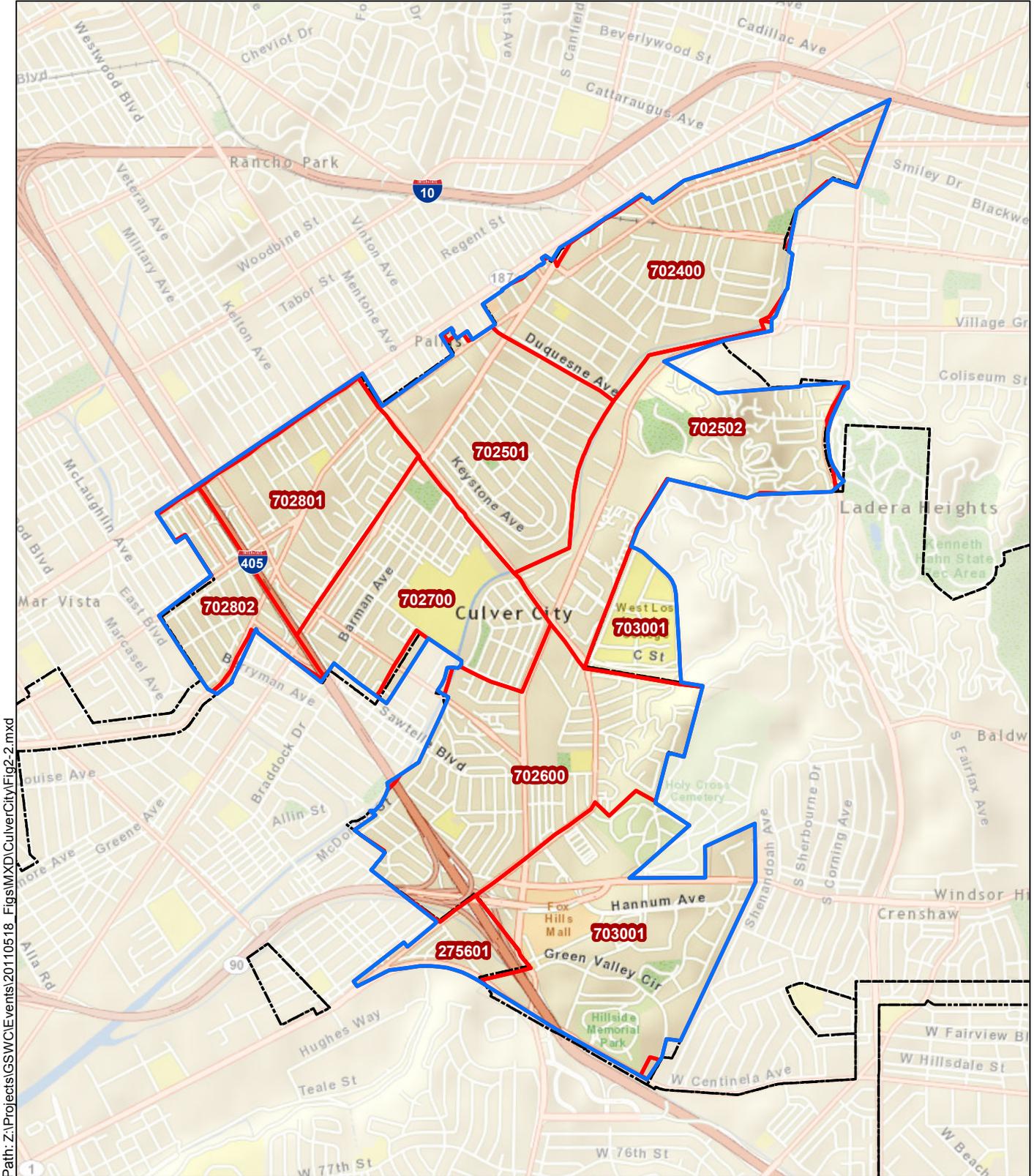
historic and projected demographic data for each census tract number from 2005 through 2035. Figure 2-2 details the census tracts within the Culver City System.

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 Census population. This ratio was then linearly scaled to active residential connections data to estimate population for the non-census years in which water supply data were available: 1997 through 2010. The residential billing category includes traditional single-family residential connections; however since GSWC does not have a specific multi-family billing category that only encompasses the apartment complexes and other types of multi-family housing units, the ratio of year 2000 Census total population per residential connections was used for projecting population growth.

Table 2-1: Culver City System Historical Population	
Year	Service Area Population
1997	37,150
1998	36,897
1999	36,371
2000	36,333 ⁽¹⁾
2001	36,380
2002	36,465
2003	36,418
2004	36,418
2005	36,413
2006	36,371
2007	36,540
2008	36,667
2009	36,657
2010	36,704

Note:

1. Population for year 2000 from 2005 UWMP.

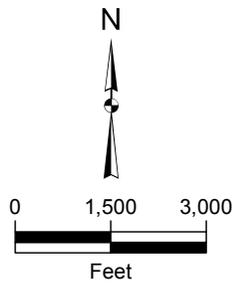


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Image Source: ESRI

Legend

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



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

**Culver City System
 Service Area with
 Census Tract Boundary**

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 August 2011
Figure 2-2

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As concluded from analysis of SCAG demographic data, the Culver City System has an estimated population of 36,704 people in 2010 and is expected to reach 37,679 by 2035. A summary of historic and projected population, households, and employment within the Culver City 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.

Table 2-2: Culver City System Historical and Projected Population				
Year	Service Area Population	Service Area Household	Service Area Employment	Data Source
2005	36,413	15,119	41,317	GSWC
2010	36,704	15,378	42,230	GSWC
2015	36,872	15,618	42,956	SCAG
2020	37,091	15,873	43,416	SCAG
2025	37,299	16,071	43,960	SCAG
2030	37,495	16,260	44,539	SCAG
2035	37,679	16,418	45,095	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 Culver City population increased 0.8 percent, which is a growth rate of approximately 0.15 percent per year. By 2035, population is expected to increase by a total of 3 percent, from 36,704 in 2010 to 37,679 in 2035, which is a 0.1 percent growth rate per year. The number of households is expected to grow 7 percent during the same period, which equates to an annual household growth rate of 0.3 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. Based on Culver City's System map there is not much open space land area available for future growth.

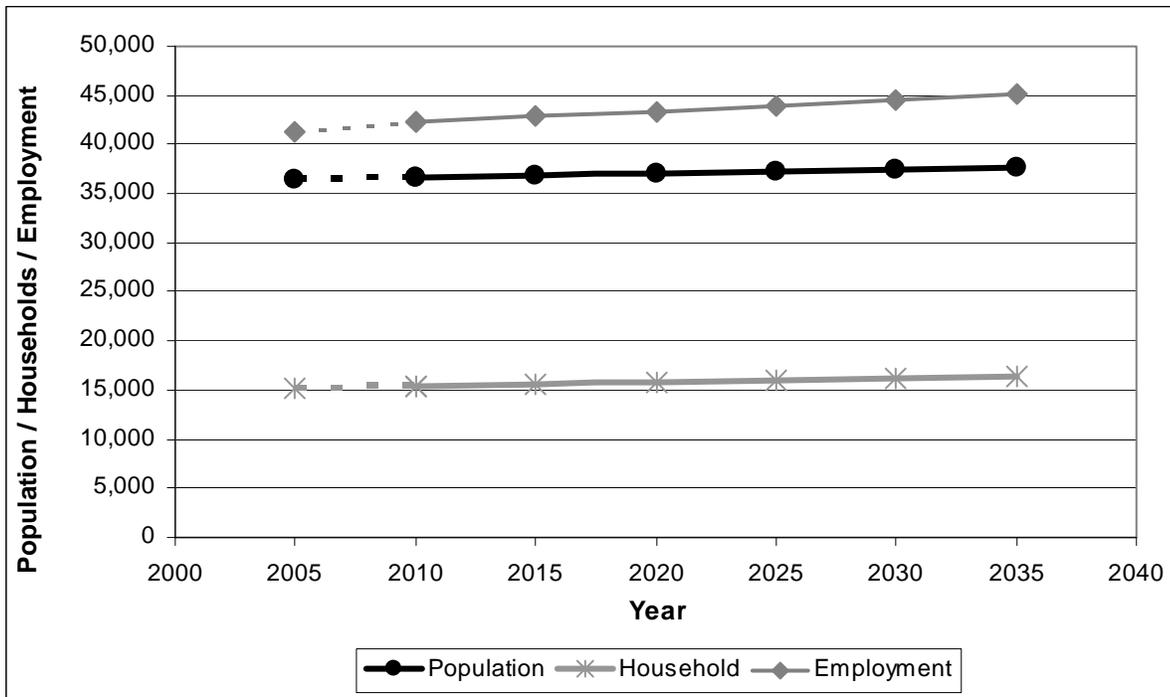


Figure 2-3: Historical and Projected Population, Household and Employment Growth within the Culver City System

2.4 Climate

The Culver City System has cool, humid winters and warm, dry summers. The Western Regional Climate Center (WRCC) website (www.wrcc.dri.edu) has maintained 70 years of historic climate records for the Culver City Station. Table 2-3 presents the monthly average climate summary based on 70-year historical data for the Culver City System.

In the winter, the lowest average monthly temperature is approximately 45 degrees Fahrenheit. The highest average monthly temperature reaches approximately 79 degrees Fahrenheit in the summer. Figure 2-4 presents the monthly average precipitation based on the 70-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 Culver City System, the California Irrigation Management Information System (CIMIS) website (<http://www.cimis.water.ca.gov>) tracks and maintains records of evapotranspiration (ETo) for few cities. ETo statistics used for this system come from the Santa Monica station, which is 5 miles from the Culver City 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 June, July and August, which may result in high water demand.

Table 2-3: Monthly Average Climate Data Summary for Culver City System

Month	Standard Monthly Average ETo ⁽²⁾ (inches)	Average Total Rainfall (inches)	Average Temperature (degrees Fahrenheit)	
			Max	Min
January	2.3	2.87	66.4	45.3
February	2.4	2.98	67.1	46.5
March	3.7	2.14	67.8	48.3
April	4.7	0.81	70.1	51.3
May	5.0	0.15	71.6	54.5
June	5.3	0.03	74.1	58.0
July	5.7	0.01	78.0	61.3
August	5.6	0.05	79.0	61.9
September	4.3	0.13	78.7	60.5
October	3.4	0.41	76.0	56.2
November	2.5	1.33	71.7	50.2
December	2.1	2.21	67.6	46.1

Note:

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

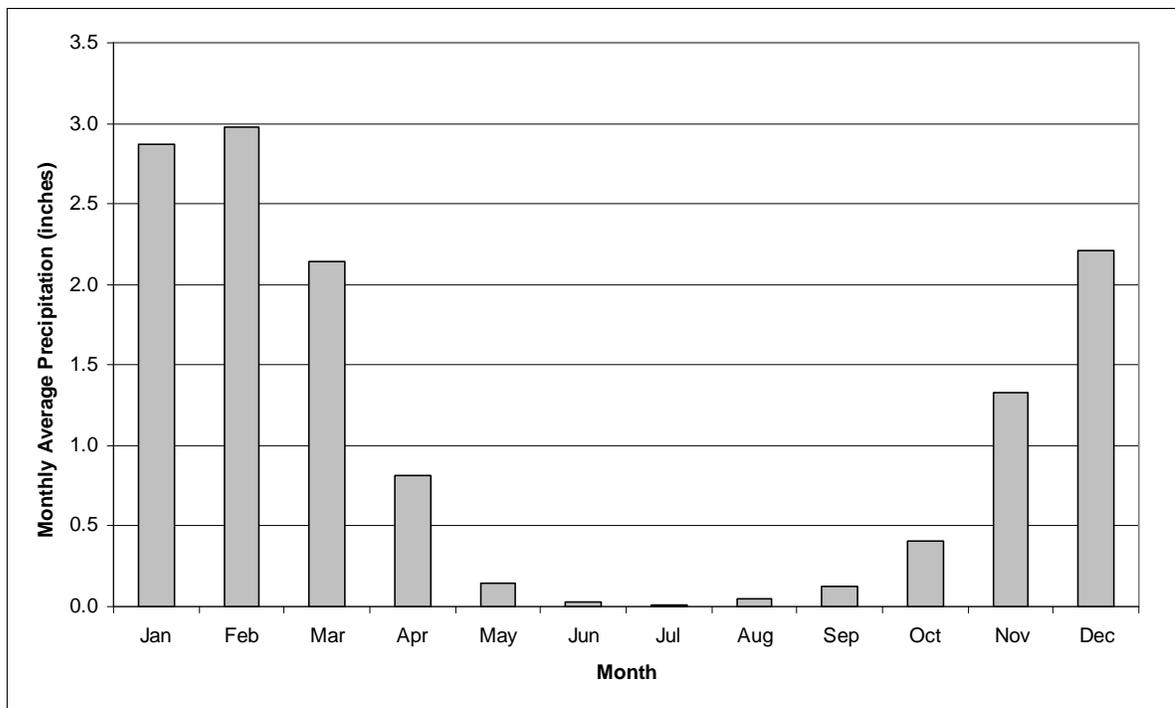


Figure 2-4: Monthly Average Precipitation in Culver City System Based on 70-Year Historical Data

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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 Culver City 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 Culver City 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 Culver City System. Figure 3-1 shows the historical number of metered service connections and water use for the Culver City System from 1994 through 2010.

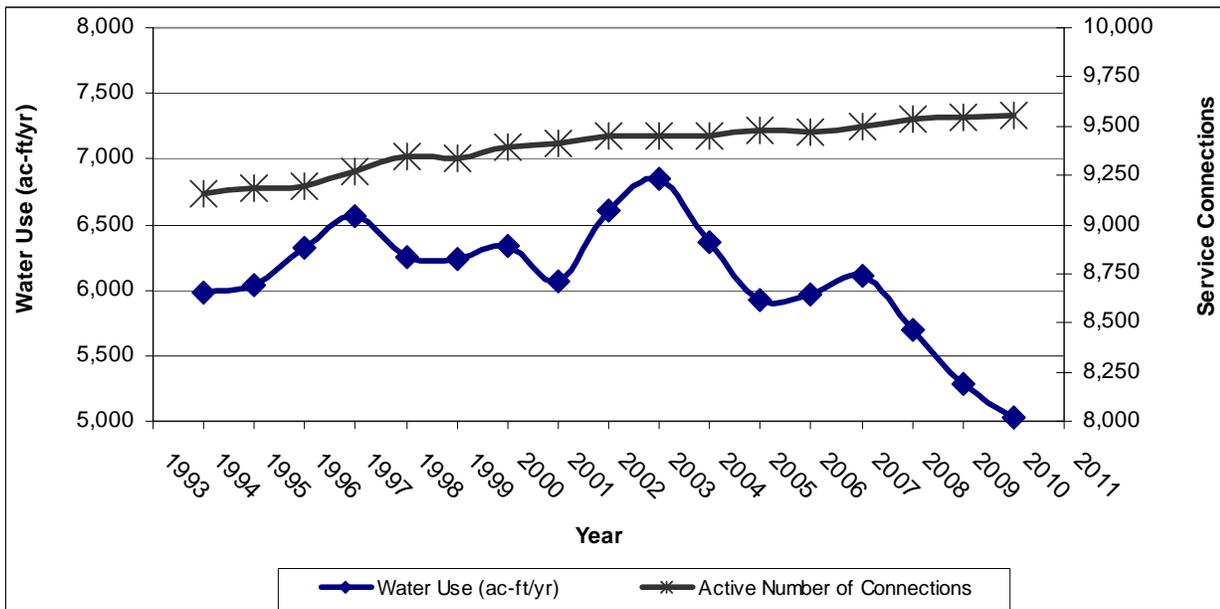


Figure 3-1: Historical Number of Metered Service Connections and Water Use

Figure 3-1 shows a decline in water use beginning in 2007 with an approximate 13 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 Culver City 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 water sales data were further grouped into the following seven categories: single-family, multi-family, industrial, commercial, institutional/government, landscape, and other. Table 3-1 shows the historical water use by customer type.

Table 3-1: Historical Water Use (ac-ft/yr) by Customer Type									
YEAR	Single-Family	Multi-Family	Commercial	Industrial	Institutional/ Government	Landscape	Agriculture	Other	Total
1994	2,793	1,150	902	129	361	644	0	1	5,980
1995	2,594	1,268	879	121	467	701	0	1	6,031
1996	2,676	1,353	918	181	424	763	0	2	6,317
1997	2,653	1,359	1,159	174	439	777	0	2	6,563
1998	2,225	1,572	1,252	190	366	651	0	2	6,258
1999	2,230	1,442	1,317	144	403	693	0	1	6,230
2000	2,124	1,446	1,468	161	434	701	0	1	6,335
2001	2,002	1,413	1,374	134	429	709	0	1	6,062
2002	2,168	1,379	1,508	242	510	797	0	1	6,605
2003	2,310	1,594	1,520	172	485	759	0	2	6,842
2004	2,090	1,582	1,338	135	462	759	0	3	6,369
2005	1,999	1,343	1,344	137	429	663	0	3	5,918
2006	2,021	1,314	1,405	146	386	695	0	4	5,971
2007	2,122	1,304	1,357	180	435	707	1	5	6,111
2008	1,994	1,230	1,271	154	360	680	1	6	5,696
2009	1,824	1,147	1,221	143	339	603	1	6	5,284
2010	1,723	1,133	1,087	175	356	543	1	6	5,024

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 the responsibility 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 Culver City 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 Culver City System:

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

Table 3-2: Base Period Ranges			
Base	Parameter	Value	Units
10-year base period	2008 total water deliveries	6,079	Ac-ft
	2008 total volume of delivered recycled water	0	Ac-ft
	2008 recycled water as a percent of total deliveries	0	Percent
	Number of years in base period	10	Years
	Year beginning base period range	1997	
	Year ending base period range	2006	
5-year base period	Number of years in base period	5	Years
	Year beginning base period range	2003	
	Year ending base period range	2007	

Note:
Table format based on DWR Guidebook Table 13.

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

Table 3-3: 1997-2010 Base Daily Use Calculation			
Calendar Year	Distribution System Population	Gallons / Day	Daily per Capita Water Use, gpcd
1997	37,150	6,180,632	166
1998	36,897	5,823,168	158
1999	36,371	6,098,850	168
2000	36,333	6,061,526	167
2001	36,380	5,838,779	161
2002	36,465	6,012,695	165
2003	36,418	5,954,771	164
2004	36,418	6,036,719	166
2005	36,413	5,772,478	159
2006	36,371	5,689,321	156
2007	36,540	5,739,498	157

Table 3-3: 1997-2010 Base Daily Use Calculation			
Calendar Year	Distribution System Population	Gallons / Day	Daily per Capita Water Use, gpcd
2008	36,667	5,427,195	148
2009	36,657	5,141,977	140
2010	36,704	4,868,349	133

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 gpcd usages of 163 and 160 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	163
1998-2007	162
1999-2008	161
2000-2009	158
2001-2010	155

Table 3-5: 5-Year Rolling Average Base Daily Per Capita Water Use	
5-Year Period	Average Base Daily Per Capita Water Use (gpcd)
2003-2007	160
2004-2008	157
2005-2009	152
2006-2010	147

3.2.2 Urban Water Use Targets

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

- Compliance Method 1 – 80 percent of baseline gpcd water use.
- Compliance Method 2 – The sum of the following performance standards: indoor residential use (provisional standard set at 55 gpcd); plus landscape use, including dedicated and residential meters or connections equivalent to the State Model Landscape Ordinance (70 percent of reference ETo); plus 10 percent reduction in baseline commercial, industrial, 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 reduction of 33 gpcd by 2020 as shown in Table 3-6. The 2015 interim target would be 147 gpcd with a 2020 water use target of 130 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)	163	147	130
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 Culver City 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. 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)	163	152	142
Percent Reduction	N/A	7	13

Minimum Compliance Reduction Target

Systems with a 5-year baseline per capita water use of greater than 100 gpcd must calculate a minimum water use reduction, which the 2020 water use target cannot exceed. The minimum water use reduction compliance target is 95 percent of the 5-year rolling average base daily per capita water use (ending no earlier than December 31, 2007, and no later than December 31, 2010). By this method, the minimum 2020 water use target for the Culver City System is 152 gpcd, as presented in Table 3-8 below:

Table 3-8: Minimum 2020 Reduction			
Description	5-Yr Average	2015 Interim Target	2020 Compliance Target
Minimum Allowable 2020 Target (gpcd)	160	156	152

3.2.3 Interim and Compliance Water Use Targets

The interim and compliance water use targets are provided per Section 10608.20(e) of the Act. Since both the Method 1 and 3 compliance targets are less than the minimum reduction; compliance Method 3 was selected by GSWC for the Culver City System. As a result, Table 3-9 shows the 2020 SBX7-7 compliance target for the Culver City System is 142 gpcd and the 2015 interim water use target is 152 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
163	152	142

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

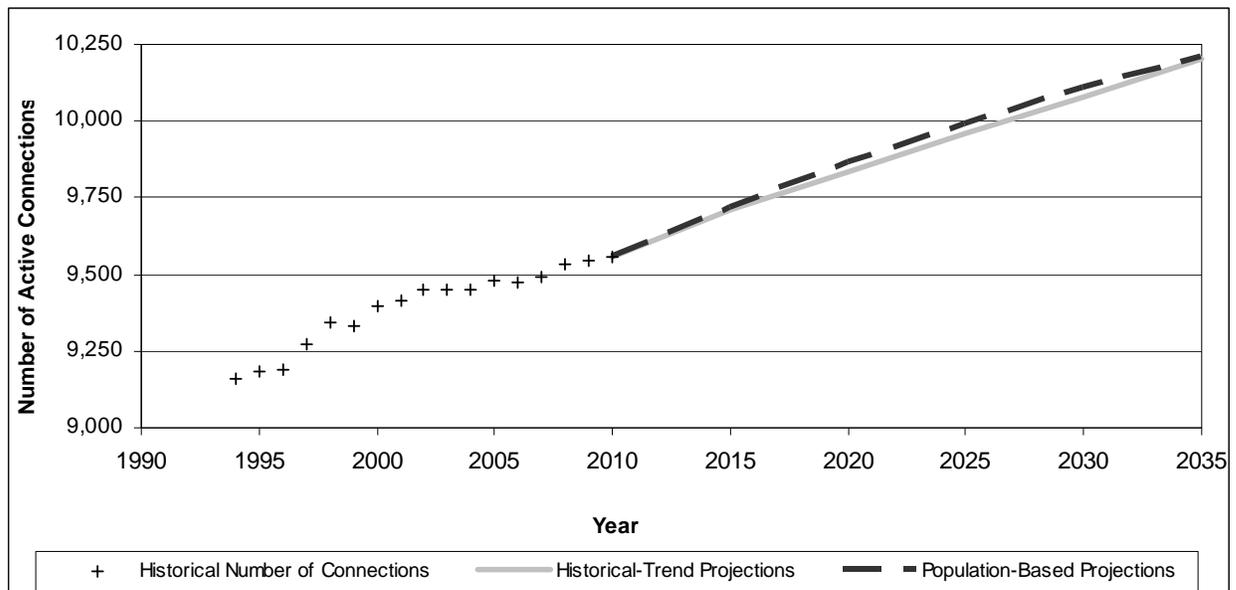


Figure 3-2: Historical and Projected Number of Metered Service Connections

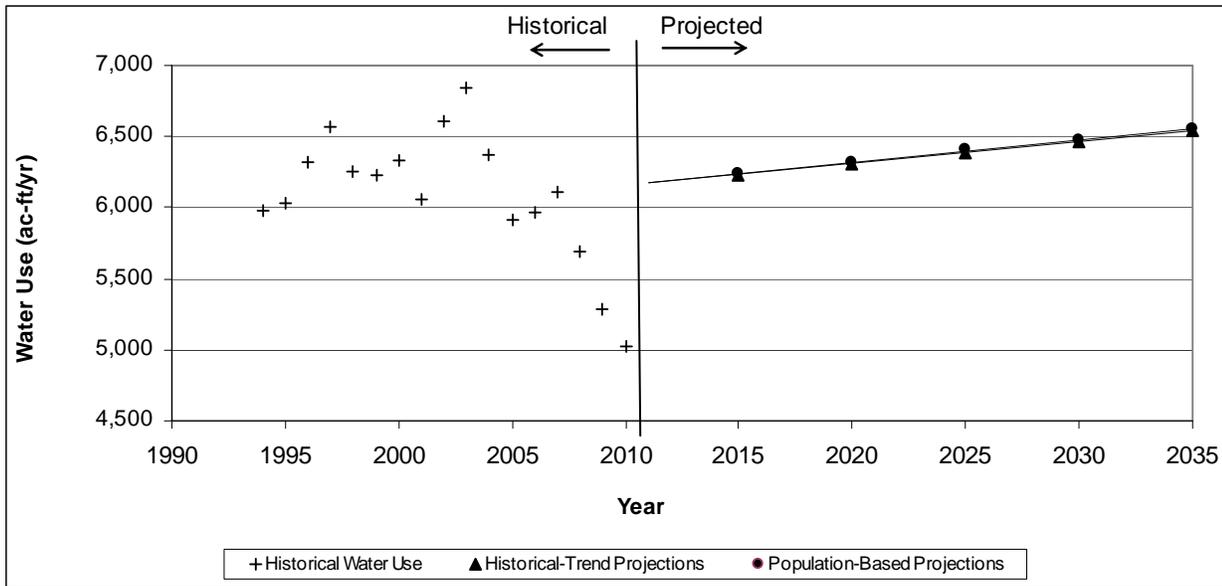


Figure 3-3: Historical Water Use and Future Water Use Projections

Historical water use records from 1994 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 that can be used for 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	Other ⁽²⁾
Water Use Factor ⁽¹⁾	0.31	1.06	1.13	0.93	2.49	4.35	0.38	0.45

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.

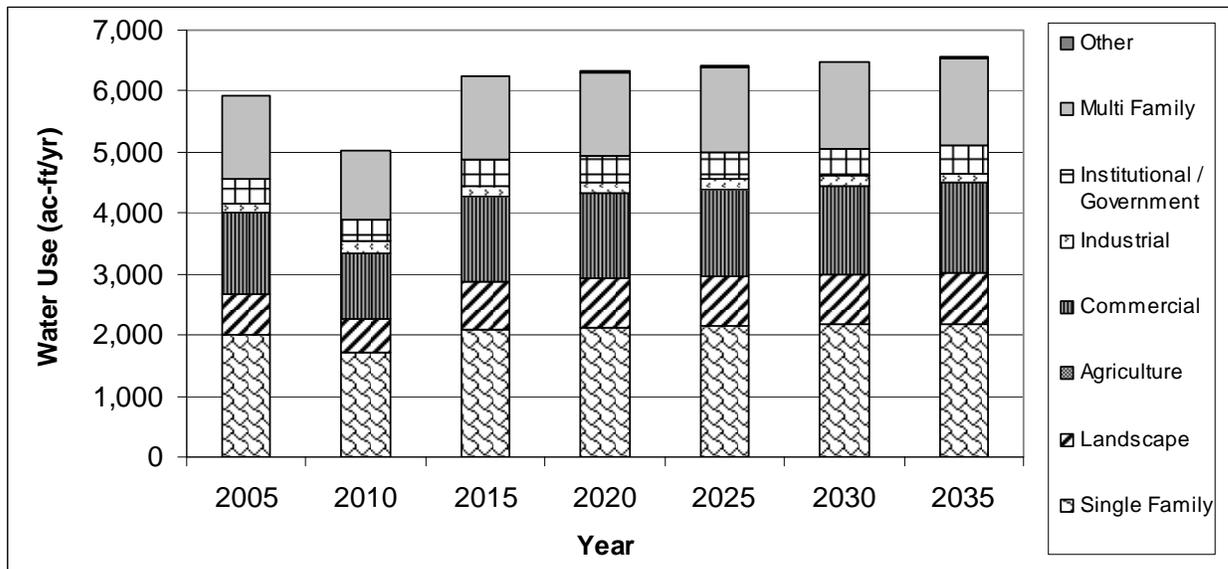


Figure 3-4: Projected Water Use by Customer Type

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

Year	Projection Type	Accounts by Type								
		Single-Family	Multi-Family	Commercial	Industrial	Institutional/ Government	Landscape	Agriculture	Other ⁽³⁾	Total
2005 ⁽²⁾	No. of Accounts	6,476	1,275	1,214	178	173	157	1	8	9,482
	Water Use (ac-ft)	1,999	1,343	1,344	137	429	663	0	3	5,918
2010	No. of Accounts	6,548	1,265	1,204	172	170	180	1	18	9,558
	Water Use (ac-ft)	1,723	1,133	1,087	175	356	543	1	6	5,024
2015	No. of Accounts	6,651	1,285	1,225	175	173	184	2	19	9,714
	Water Use (ac-ft)	2,082	1,364	1,388	163	431	801	1	9	6,239
2020	No. of Accounts	6,759	1,306	1,238	177	175	186	2	19	9,862
	Water Use (ac-ft)	2,118	1,386	1,402	164	436	810	1	9	6,326
2025	No. of Accounts	6,844	1,323	1,254	180	177	188	2	19	9,987
	Water Use (ac-ft)	2,144	1,404	1,421	167	441	818	1	9	6,405
2030	No. of Accounts	6,924	1,338	1,270	182	180	190	2	19	10,105
	Water Use (ac-ft)	2,169	1,420	1,439	169	448	827	1	9	6,482
2035	No. of Accounts	6,992	1,351	1,286	184	182	193	2	20	10,210
	Water Use (ac-ft)	2,191	1,434	1,457	171	453	840	1	9	6,556

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 Culver City 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 Culver City 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 Culver City System, from 1994 through 2010, system water losses have averaged 6.4 percent of the total production; therefore, this rate was incorporated into water projections. Table 3-13 provides a summary of projected system losses in the Culver City 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⁾	548	430	399	404	409	414	419
Total	548	430	399	404	409	414	419

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 Culver City System. Although there are no other water uses contributing to the total water demand in the Culver City 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. SBX7-7 compliance water demands were calculated by multiplying the projected population by the applicable water use target. Future water use that is exempt from SBX7-7, such as industrial process water or direct reuse recycled water is not included in this project.

Table 3-14: Projected Total Water Demand and SBX7-7 Compliance Projections in ac-ft/yr

Year ⁽²⁾	Projected Water Sales	Other Water Uses and System Losses	Total Baseline Water Demand	SBX7-7 Compliance Projections	
				Water Savings	Total Water Demand with Savings
2005	5,918	548	6,466	0	6,466
2010	5,024	430	5,454	0	5,454
2015	6,239	399	6,638	360	6,278
2020	6,326	404	6,730	830	5,900
2025	6,405	409	6,814	882	5,933
2030	6,482	414	6,897	933	5,964
2035	6,556	419	6,975	982	5,993

Notes:

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

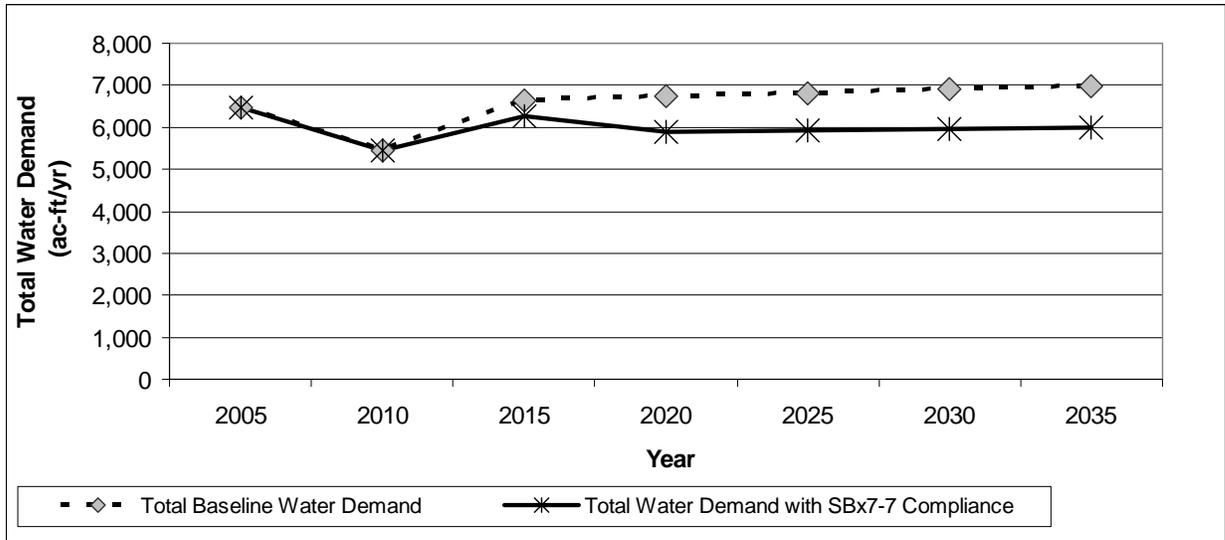


Figure 3-5: Total Water Demand

3.7 Data Provided to Wholesale Agency

GSWC provided the following projected water use data in late 2010 to the West Basin Municipal Water District (WBMWD), its wholesale water supplier for the Culver City System, as summarized in Table 3-15. 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
WBMWD	30,651 ⁽¹⁾	6,654	6,766	6,855	6,947	7,030	7,107

Notes:

1. Shared by all of GSWC's systems served by WBMWD, including Culver City and Southwest.
2. This table is based on the DWR Guidebook Table 12.

3.8 Disadvantaged Community Water Use Projections

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

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

Housing elements rely on the Regional Housing Needs Allocation (RHNA) generated by the State Department of Housing and Community Development (HCD) to allocate the regional need for housing to the regional Council of Governments (COG) (or a HCD for cities and counties not covered by a COG) for incorporation into housing element updates. Before the housing element is due, the HCD determines the total regional housing need for the next planning period for each region in the state and allocates that need. The COGs then allocate to each local jurisdiction its “fair share” of the RHNA, broken down by income categories; very low, low, moderate, and above moderate, over the housing element’s planning period.

The County of Los Angeles last updated its housing element in 2006. A lower income house is defined as 80 percent median income, adjusted for family size. The County’s housing element identifies the target number of low-income households in the County from 2006 to 2013 as 15.7 percent and very low-income households as 24.7 percent. However, it is unknown what percentage of the low-income and very low-income households are within GSWC’s Culver City 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	146	159	170	180	189
Multi-Family Residence	93	102	109	116	121
Total	239	261	279	296	310

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

4.1 Water Sources

The Golden State Water Company (GSWC) currently obtains its water supply for the Culver City System by purchasing imported water from the West Basin Municipal Water District (WBMWD). WBMWD obtains its imported water supply from the Metropolitan Water District of Southern California (Metropolitan).

Table 4-1, below, summarizes the current and planned water supplies available to GSWC for the Culver City System that will meet their projected water demands, based upon GSWC's long-term water supply planning projections and those of its wholesale suppliers. GSWC's water supply is projected to increase by about 27 percent from 2010 to 2035 to meet the associated projected water demands, with all of this demand being met by imported water from WBMWD. Water demand projections are documented in Chapter 3.

Table 4-1: Current and Planned Water Supplies for the Culver City System in ac-ft/yr						
Source	2010 ⁽¹⁾	2015	2020	2025	2030	2035
Imported water from WBMWD	5,454	6,638	6,730	6,814	6,897	6,975
Groundwater	0	0	0	0	0	0
Recycled water	0	0	0	0	0	0
Total	5,454	6,638	6,730	6,814	6,897	6,975

Notes:

1. 2010 water supplies are based on actual production records.
2. Table format based on DWR Guidebook Table 16.

In 2010, imported water made up 100 percent of the available supply and is projected to make up 100 percent in future years as well. Therefore, GSWC is actively pursuing the availability of a reliable, cost effective supply of imported water through the implementation of conjunctive use storage programs. Storage programs could utilize water imported from WBMWD or water imported from other suppliers. This water supply summary was developed based on information provided by Metropolitan, WBMWD, and GSWC.

The sources and reliability of supply are briefly described below, and detailed descriptions follow in subsequent sections.

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

Groundwater: There are currently no sources of groundwater supplying the Culver City System.

Recycled water: There are currently no sources for recycled water for the Culver City System. The potential for future recycled water use is described in Section 4.8.

4.2 Imported Water

WBMWD is a large purveyor of water in southern California. WBMWD provides water to several agencies including GSWC. GSWC obtains water from this district for several systems, including the Culver City System. Water imported from WBMWD is delivered to the Culver City System through the following three connections:

- Metropolitan WB-23 connection with a capacity of 9,000 gpm
- Metropolitan WB-24 connection with a capacity of 9,000 gpm
- Metropolitan WB-34 connection with a capacity of 4,500 gpm.

These connections have a combined active design capacity of 22,500 gpm which could supply 36,293 ac-ft/yr, if used continuously at their maximum capacity. Water imported from WBMWD for the Culver City System is treated by Metropolitan prior to delivery. Three reservoirs, with a total volume of 2.2 million gallons, are available to serve the Culver City System.

The 5-year purchase agreement between GSWC and WBMWD 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 imported amount, 5-year total and 5-year average is presented in Table 4-2.

	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

Note:

1. Shared by all of GSWC's systems served by WBMWD, including Culver City and Southwest.

4.3 Groundwater

The Culver City System is located within the Los Angeles County Groundwater Basin. The Culver City System has not used groundwater as a supply source since 1998. In 2004, GSWC sold their groundwater pumping rights in the Charnock Basin to the City of Santa Monica. GSWC still owns water rights in the Santa Monica Subbasin, and is assessing the feasibility of potential groundwater development projects within several local basins. If developed, each of these projects would provide some increment of local groundwater which would improve the reliability of or displace the use of imported water within the Culver City System. There are currently three wells in the Culver City System, two are inactive and one is on standby status, which is available for emergency use. Since groundwater is not a supply source for the Culver City System; there is no detailed description of the Groundwater Basin.

4.4 Transfers and Exchanges

There are no planned transfer and/or exchange opportunities in the Culver City System at this time; therefore, Table 4-3 has been left blank.

Table 4-3: Transfer and Exchange Opportunities					
Source Transfer Agency	Transfer or Exchange	Short Term	Proposed Quantities	Long-Term	Proposed Quantities
GSWC	N/A	N/A	N/A	N/A	N/A

Note:

Table format based on DWR Guidebook Table 20.

4.5 Planned Water Supply Projects and Programs

WBMWD has various projects planned, the details of which can be found in WBMWD's 2010 Urban Water Management Plan. WBMWD's dependence on traditional sources of water (imported) will continue to decrease with the expansion of these alternative resources. As noted above, GSWC still owns water rights in the Santa Monica Subbasin of the Los Angeles County Groundwater Basin and is assessing the feasibility of potential groundwater development projects within several local basins. If developed, each of these projects would provide some increment of local groundwater which would improve the reliability of or displace the use of imported water within the Culver City System.

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.

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

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

The projected future water supply from the Cadiz Project is shown in Table 4-4.

Table 4-4: 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 4-5 provides WBMWD's existing and planned water sources available to the Culver City System.

Table 4-5: Existing and Planned Wholesale Water Sources in ac-ft/yr							
Wholesaler Sources	Contracted Volume	2010	2015	2020	2025	2030	2035
WBMWD		5,454	6,638	6,730	6,814	6,897	6,975

Note:

This table is based on DWR Guidebook Table 17.

The reliability of wholesale water supply to meet annual water demand under an average, single-dry, and multiple-dry year condition for the Culver City System is provided in Table 4-6. The table includes a single-dry year and multiple-dry year supplies for 2035. The available supply from Metropolitan through WBMWD 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 4-6: Reliability of Wholesale Supply for Year 2035 in ac-ft/yr					
Wholesaler	Average / Normal Water Year Supply	Single-Dry	Multiple-Dry Water Years		
			Year 1	Year 2	Year 3
WBMWD	6,975	6,975	6,975	6,975	6,975
Percent Normal	100	100	100	100	100

Note:

Table format based on DWR Guidebook Table 31.

Table 4-7 lists factors affecting wholesale supply for the Culver City System. Metropolitan intends to provide 100 percent supply reliability to WBMWD, which in turn provides 100 percent reliability of imported water supply to the Culver City 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 WBMWD 2010 UWMP.

Table 4-7: Factors Affecting Wholesale Supply				
Name of Supply	Legal	Environmental	Water Quality	Climatic
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 Culver City System. Section 10631(i) of the Act requires an evaluation of desalination opportunities within the Culver City 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 Culver City 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 Culver City System. However, it is not possible at this point to quantify the amount of desalinated water that will be available for the Culver City System. The following discussion summarizes the desalination plans of water wholesalers. Metropolitan and its member agency, WBMWD 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. In the 2004 IRP Update, Metropolitan 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.

Table 4-8 provides a summary of 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.

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 Plan

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

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

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

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

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

4.8.1 Coordination

Table 4-9 summarizes the role of the agencies that participated in the development of recycled water plans that affect the Culver City System of the GSWC.

Table 4-9: Role of Participating Agencies in the Development of the Recycled Water Plan	
Participating Agencies	Role in Plan Development
Water agencies	GSWC works closely with the West Basin Municipal Water District (WBMWD) in planning a potential recycled water distribution system and identifying potential recycled water customers. WBMWD, acting as the recycled water wholesaler, would lead the way in implementing 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.
Groundwater agencies	The Water Replenishment District of Southern California purchases recycled water from WBMWD for injection into the West Coast Basin seawater barrier
Planning agencies	Los Angeles County Sanitation District, in conjunction with WBMWD, plays a key role in conducting data and customer assessments, as well as analyzing community and economic impacts.

4.8.2 Wastewater Quantity, Quality, and Current Uses

Wastewater in the Culver City System is collected by gravity sewers and lift stations owned by the City of Culver City. The wastewater is transported through trunk sewers to the City of Los Angeles Bureau of Sanitation's Hyperion Wastewater Treatment Plant (WWTP) for treatment.

The City of Los Angeles owns and operates the Hyperion WWTP. The Hyperion Treatment Plant is a secondary treatment facility with a design capacity of 450 million gallons per day (mgd). The WWTP treats an average dry weather flow (DWF) of 300 mgd of wastewater, serving approximately 4 million people. Treatment at the Hyperion WWTP consists of screening, grit removal, and primary sedimentation with coagulation and flocculation. In secondary treatment, the primary effluent is biologically treated in a high purity oxygen activated sludge process. After clarification, The WBMWD purchases approximately 37,600 ac-ft/yr (roughly 9 percent of Hyperion's secondary effluent) for advanced treatment at the Edward C. Little Water Recycling Facility (ECLWRF) (WBMWD 2010 Draft UWMP). The remaining un-

disinfected, secondary effluent (roughly 91 percent of Hyperion’s flow) is discharged to the Pacific Ocean through a 5-mile submerged outfall pipe in Santa Monica Bay.

WBMWD operates the ECLWRF, located in El Segundo, California, and is contractually entitled to receive up to 70 mgd of secondary effluent from the Hyperion WWTP for advanced treatment, but on average receives about 34 mgd. ECLWRF provides tertiary treatment to the Hyperion secondary effluent to produce high-purity recycled water that complies with the requirements of Title 22 of the California Code of Regulations. The recycled water produced by ECLWRF is used 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.

Because the Hyperion WWTP treats wastewater for a larger population than exists in the Culver City System, an estimated per capita wastewater generation factor was used to calculate the volume of wastewater generated by the customers in the Culver City System. The wastewater generation factor is based on the total population served and the average wastewater treatment rate for the Hyperion WWTP. The WWTP serves approximately 4 million residents and treats an average of 300 mgd, making the average per capita wastewater generation factor for the Hyperion WWTP 75 gallons per day (gpd). This factor was used to estimate the existing and projected volumes of wastewater collected and treated in the Culver City System as shown in Table 4-10. Since about 9 percent of Hyperion’s effluent will be treated by WBMWD to meet recycled water standards, the same percentage was used to estimate the amount of wastewater generated in the Culver City System that will be treated to meet recycled water standards. The remaining 91 percent is assumed to be discharged into the Pacific Ocean. Table 4-11 lists the estimates of existing and projected volumes of treated effluent that will be discharged into the Pacific Ocean. Table 4-12 was intentionally left blank as there are no existing uses of recycled water by the GSWC customers in the Culver City System.

Table 4-10: Estimates of Existing and Projected Wastewater Collection and Treatment in ac-ft/yr (mgd) for the Culver City System							
	2005 ⁽²⁾	2010 ⁽²⁾	2015	2020	2025	2030	2035
Projected population in service area ⁽¹⁾	36,413	36,704	36,872	37,091	37,299	37,495	37,679
Wastewater collected & treated in service area ⁽³⁾	3,059 (2.73 mgd)	3,084 (2.75 mgd)	3,098 (2.77 mgd)	3,116 (2.78 mgd)	3,134 (2.80 mgd)	3,150 (2.81 mgd)	3,165 (2.83 mgd)
Quantity that meets recycled water standard	275 (0.25 mgd)	278 (0.25 mgd)	279 (0.25 mgd)	280 (0.25 mgd)	282 (0.25 mgd)	283 (0.25 mgd)	285 (0.25 mgd)

Notes:

1. For population projections see Section 2.3.
2. Based on actual year.
3. Values of wastewater collected and treated are estimated. For a description of the methodology, refer to the text.
4. This table is based on the DWR Guidebook Table 21.

Table 4-11: Estimates of Existing and Projected Disposal of Non-Recycled Wastewater in ac-ft/yr (mgd) for the Culver City System

Method of Disposal	Treatment Level	2005 ⁽²⁾	2010 ⁽²⁾	2015	2020	2025	2030	2035
Ocean Discharge ⁽¹⁾	Secondary	2,784 (2.49)	2,806 (2.51)	2,819 (2.52)	2,836 (2.53)	2,852 (2.55)	2,866 (2.56)	2,881 (2.57)

Notes:

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

Table 4-12: Existing Recycled Water Use in the Culver City System

Type of Use	Treatment Level	2009 Use (ac-ft/yr)
N/A	N/A	N/A

4.8.3 Potential and Projected Use

WBMWD acquires, controls, distributes, and sells recycled water to several cities, agencies, and customers in the greater Los Angeles area. WBMWD owns and operates the recycled water distribution infrastructure in its service area. The Culver City System does not currently receive recycled water from WBMWD nor are there any plans to extend the recycled water distribution network to Culver City in the next 25 years. Therefore, Table 4-13, Table 4-14, and Table 4-15 were intentionally left blank because they are not applicable for this system. However, if and when WBMWD decides to extend their recycled water distribution network to the Culver City System, GSWC will support the project identifying potential recycled water customers.

Table 4-13: Potential Future Recycled Water Uses in ac-ft/yr

Type of Use	Treatment Level	Description	Feasibility	2015	2020	2025	2030	2035
None	N/A	N/A	N/A	0	0	0	0	0
Total				0	0	0	0	0

Note:

This table is based on the DWR Guidebook Table 23.

Table 4-14: Projected Future Recycled Water Use in Service Area in ac-ft/yr

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

Table 4-15: Comparison of Recycled Water Uses—Year 2000 Projections versus 2005 Actual		
Type of Use	2005 Projection for 2010	2010 Actual Use
N/A	N/A	N/A

Note:

This table is based on the DWR Guidebook Table 24.

4.8.4 Optimization and Incentives for Recycled Water Use

WBMWD is responsible for determining the technical and economic feasibility of supplying recycled water to the area. Because there are currently no plans to extend recycled water to the Culver City System, there are no actions in place at this time by which GSWC is encouraging the use of recycled water in the system. Therefore, Table 4-16 is not applicable for this system and has been intentionally left blank. However, if and when WBMWD decides to implement a recycled water project in the system, where feasible, GSWC will support the project by encouraging recycled water use among its customers.

Table 4-16: Methods to Encourage Recycled Water Use and the Resulting Projected Use in ac-ft/yr					
Actions	2010	2015	2020	2025	2030
N/A	N/A	N/A	N/A	N/A	N/A

Note:

This table is based on the DWR Guidebook Table 25.

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Chapter 5: Water Quality

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

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

5.1 GSWC Measures for Water Quality Regulation Compliance

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

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

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

5.2 Water Quality Issues

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

5.2.1 Surface Water Quality

The entire supply for Culver City is obtained from treated surface water supply imported from the Metropolitan through three active connections (WB No. 23, WB No. 24, and WB No. 34). This is the primary source of water distributed in the system. Metropolitan is responsible for meeting all drinking water standards as water leaves the surface water treatment plant and at all inter-connections with the Culver City System.

5.2.2 Groundwater Quality

There are currently three wells in the system, two are inactive and one is on standby status due to water quality issues. A treatment system is being considered for the well.

Table 5-1 summarizes water quality concerns for the groundwater wells in the Culver City System. All wells are currently on standby or are inactive due to water quality issues. The following discussion relates to contaminants with maximum containment 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 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.

Well	Current Well Capacity (gpm) ⁽¹⁾	Status	Water quality issue/concern	Existing Treatment	Recommendations
Sentney No. 8	700	Standby	Fe/Mn, BTEX, TDS	Dual media filter	VOC/TDS reduction
Charnock No. 9	800	Inactive	Fe/Mn, Hardness, TDS, MTBE	Dual media filter	Full treatment
Charnock No. 10	1,500	Inactive	Fe/Mn, Hardness, TDS, MTBE	Dual media filter	Full treatment

Note:

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

5.2.3 Distribution System Water Quality

Distribution System water quality monitoring is performed for several water quality parameters in the Culver City System, including general physical properties, presence of coliform bacteria, and disinfectant and disinfection byproduct levels. Corrosivity of the water is monitored by measuring 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 Culver City System utilizes an approved Sample Siting Plan for the collection, recording, and reporting of all bacteriological analyses. The Culver City 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.

5.3 Projected Impacts of Water Quality

Table 5-2 summarizes the projected impact on water supply due to water quality issues with wells in the Culver City System.

Table 5-2: Summary of Projected Water Supply Changes Due to Water Quality Issues						
Water Source	Projected Change (ac-ft/yr)					
	2010	2015	2020	2025	2030	2035
Sentney No. 8	0	0	0	0	0	0
Charnock No. 9	0	0	0	0	0	0
Charnock No. 10	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 Culver City System is supplied by Metropolitan imported water received via WBMWD. Since Metropolitan obtains water supply from a number of different sources, conditions in local and distant areas can affect the reliability of supplies. This section summarizes the reliability of GSWC's water supply sources for the Culver City system. In general, GSWC's supply is expected to be 100 percent reliable through 2035. This reliability is a result of the following:

- Benefits of conjunctive use storage programs to be developed in accordance with court Judgments and anticipated at some time in the future;
- Water supplies available from the supplemental supplier, Metropolitan, projected to be 100 percent reliable; and
- Conservation derived supply.

6.1.1 Wholesale Water Supply Reliability

WBMWD, the local wholesaler supplying imported water to GSWC is largely a pass-through entity which obtains nearly all of its 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 and WBMWD water supply reliability considerations.

Significant additional supply reliability detail may be obtained from the WBMWD 2010 UWMP 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 and recovery, desalination, and recycled water. The two primary components of Metropolitan's water supplies are also the most variable:

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

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

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

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

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

6.1.1.2 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 (Metropolitan)	62%	36%
Groundwater	22%	23%
Desalination	0%	11%

Note:

West Basin Municipal Water District 2010 Draft Urban Water Management Plan

6.1.2 Culver City System's Water Supply Reliability

Table 6-2 presents water supply projections for imported water sources during a normal year, single-dry year, and multiple-dry years for the Culver City System. The normal-year supply represents the expected supply under average hydrologic conditions, the dry-year supply represents the expected supply under the single driest hydrologic year, and the multiple-dry year supply represents the expected supply during a period of three consecutive dry years.

As described above, imported water supplies from Metropolitan are anticipated 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

Source	Normal Water Year	Single-Dry Water Year	Multiple-Dry Water Years		
			Year 1	Year 2	Year 3
Imported water from WBMWD	6,975	6,975	6,975	6,975	6,975
Groundwater	0	0	0	0	0
Total	6,975	6,975	6,975	6,975	6,975
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 imported water supplies. The single-dry year and multiple-dry year periods are based on WBMWD'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 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.

Water Year Type	Base Year(s)	Historical Sequence
Normal Water Year ⁽³⁾	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 WBMWD.
2. Table format based on DWR Guidebook Table 27.

6.1.3 Factors Resulting in Inconsistency of Supply

Table 6-4 presents factors that could potentially result in inconsistency of supply for the Culver City System.

Table 6-4: Factors Resulting in Inconsistency of Supply				
Name of Supply	Legal	Environmental	Water Quality	Climatic
WBMWD	N/A	N/A	N/A	N/A

Notes:

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

6.2 Normal Water Year Analysis

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

Table 6-5: Comparison of Projected Normal Year Supply and Demand					
	2015	2020	2025	2030	2035
Water Supply Total (ac-ft/yr)	6,638	6,730	6,814	6,897	6,975
Water Demand Total (ac-ft/yr)	6,638	6,730	6,814	6,897	6,975
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 Culver City System in a single-dry year. WBMWD has determined that they can meet their projected water demands in a single-dry year, so the projected imported 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)	6,638	6,730	6,814	6,897	6,975
Demand Total (ac-ft/yr)	6,638	6,730	6,814	6,897	6,975
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. It is assumed that the multiple-dry year water supplies are the same as those for the normal years because Metropolitan (through 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. WBMWD has determined that it 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 WBMWD has determined that they can meet projected water demands for the multiple-dry year periods (see Chapter 3);

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

Year	Supply (ac-ft/yr)	Demand (ac-ft/yr)	Difference	Difference as Percent of Supply	Difference as Percent of Demand
2011					
2012					
2013	6,164	6,164	0	0%	0%
2014	6,401	6,401	0	0%	0%
2015	6,638	6,638	0	0%	0%
2016					
2017					
2018	6,693	6,693	0	0%	0%
2019	6,712	6,712	0	0%	0%
2020	6,730	6,730	0	0%	0%
2021					
2022					
2023	6,781	6,781	0	0%	0%
2024	6,798	6,798	0	0%	0%
2025	6,814	6,814	0	0%	0%

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
2026					
2027					
2028	6,864	6,864	0	0%	0%
2029	6,880	6,880	0	0%	0%
2030	6,897	6,897	0	0%	0%
2031					
2032					
2033	6,943	6,943	0	0%	0%
2034	6,959	6,959	0	0%	0%
2035	6,975	6,975	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 Culver City System and includes a summary of current and planned Demand Management Measure (DMM) implementation and an overview of the proposed program for compliance with SBX7-7, which requires 20 percent statewide reduction in urban water use by 2020. The DMM portions of the Act state the following:

Section 10631.

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

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

7.1 Conservation Program Background

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

To facilitate efficient BMP reporting for water systems located in GSWC's three regions in California, GSWC established a number of BMP "Reporting Units" based on geographic proximity. GSWC's 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 are 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, Central Basin Municipal Water District (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 0.22.

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

Report Year	Prescreen Completed	Prescreen Result
2006	Yes	92.0%
2007	Yes	99.2%
2008	Yes	91.5%
2009	Yes	94.8%

Note:
2010 Data Not applicable; M36 method implemented.

Implementation Steps and Schedule

Effective 2010, GSWC will continue to complete the Standard Audit and Water Balance worksheets following the AWWA M36 protocol for the next four 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 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.

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). GSWC's school education budget for Region II is \$200,000 annually with a goal of targeting 8,900 students. 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 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 Urban 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	1000	700	8,500	26,766	28,255

Implementation Steps and Schedule

Over the next five 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 High Efficiency Clothes Washer (HECW) rebate program provided by Metropolitan, which has been available since 2003. Metropolitan has supplemented its HECW rebate using state or federal grants whenever possible. The water efficiency of clothes washers is represented by the "water factor," which is a measure of the

amount of water used to wash a standard load of laundry. Washers with a lower water factor save more water. Metropolitan has continued to transform the market by changing its program requirement to lower water factors. The program eligibility requirement is currently set at water factor 4.0, which saves over 10,000 gallons per year per washer over a conventional top loading washer. GSWC does not contribute funds to the HECW rebate program. The GSWC conservation webpage advertises the rebates and provides a link to the Metropolitan website for full program details. A summary of the HECW Rebates received by GSWC customers in Region II is provided in Table 7-6.

	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 and to increase program participation will increase marketing efforts to raise customer awareness that the program is being offered. GSWC will develop an updated conservation website, and prominently include HECW rebate incentive on future bill stuffers or other direct mail campaigns.

Methods Used to Evaluate Effectiveness and Water Savings

Metropolitan tracks customer participation in the HECW rebate program and estimates that 28 gallons per day are saved for each HECW installed. At the required implementation levels, it is estimated that GSWC will save a total of approximately 965 ac-ft from 704 HECWs per year installed 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 High Efficiency Toilet (HET) rebate program administered by Metropolitan since 2008 Metropolitan has provided incentives for toilet programs since 1988, including ULFT rebates. Currently, Metropolitan only provides funding for high-efficiency toilets (1.28 gallons per flush or less), which use 20 percent less than ultra-low-flush toilets (1.6 gallons per flush). 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 Culver City 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 per year. There are no anticipated impacts on GSWC’s ability to further reduce demands.

7.4.1.5 WaterSense Specification for Residential Development

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

Implementation Exemption

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

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

7.4.1.6 Commercial, Industrial, and Institutional DMMs

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

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 weather based irrigation controllers. 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 summarizes the number of irrigation incentive rebates distributed in the Metropolitan Reporting Unit.

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 evapotranspiration-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 weather based irrigation controllers (WBIC) and precision nozzles will also be distributed to mix-metered high water use customers who have been determined not to be water efficient.

Methods Used to Evaluate Effectiveness and Water Savings

GSWC will track increased customer participation in the CII large landscape water budgeting and rebate programs. At the implementation rate described above, it is estimated that as much as 3,270 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 Culver City System is 163 gpcd, and the 2020 compliance goal is 142 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 three years there has been a recent 10 percent decline in gpcd in the Culver City System from 148 gpcd in 2008 to an estimated 133 gpcd in 2010. Therefore, the Culver City 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 142 gpcd. GSWC will assess implementation of a suite of programs over the next 2 to 3 years to meet conservation targets companywide. Implementation levels and specific program offerings will vary by system depending on system goals, including existing implementation levels, demographics, and hydrologic characteristics.

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

Conservation Pricing

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

Financial Incentives

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

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

program is found to be successful at meeting reduction targets, the program may be accelerated and more devices will be offered, such as precision nozzles.

Building Code/New Standards

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

Information/Tracking

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

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

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

7.5.1 Consideration of Economic Impacts

Since funding for all conservation activities is subject to approval by the CPUC before programs can be implemented, the economic impacts of complying with SBX7-7 have not yet been fully determined. However, an economic analysis to help develop programs that avoid placing disproportionate burdens on any single sector will be prepared during development of the SBX7-7 water use efficiency program. The annual costs associated with implementing all traditional CUWCC programmatic BMPs cannot be determined because it represents the combined efforts of Metropolitan 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 Culver City System per requirements of Section 10632 of the Act. The Water Shortage Contingency Plan is based on Rule No. 14.1 Mandatory Water Conservation, Restrictions and Ratings Program adopted by GSWC and on file with CPUC. Appendix D contains the full text of the rule.

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

8.1 Action Stages

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

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

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

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 is significantly higher than the projected imported water supply required to meet projected normal year demands.

GSWC's supply is expected to be 100 percent reliable from 2011 to 2013. This reliability is a result of the projected reliability of WBMWD as a member of Metropolitan, which intends to provide a 100 percent reliable supply source.

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

Source	2011	2012	2013	2010 Average Year
Imported water from WBMWD	5,691	5,927	6,164	5,454
Groundwater	0	0	0	0
Recycled water	0	0	0	0
Total	5,691	5,927	6,164	5,454

Notes:

1. Projected 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. This table is based on the DWR Guidebook Table 31.

8.3 Catastrophic Supply Interruption Plan

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

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

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

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

Table 8-3: Summary of Actions for Catastrophic Events

Possible Catastrophe	Summary of Actions
Regional power outage	<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.

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

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



Notice of Public Hearing

In conformance with the California Urban Water Management Planning Act, Golden State Water Company (GSWC) is hosting a public hearing on August 10, from 6 p.m. to 7 p.m. at the Veterans Memorial Complex, 4117 Overland Ave., Culver City, to solicit comments on the Urban Water Management Plan (UWMP) for the company's Culver City Water System.

The UWMP is 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 the following location:

Culver City Customer Service Office
10758 Washington Blvd.
Culver City, CA 90232

For more information, visit www.gswater.com.

June 8, 2011

City of Culver City
Sol Blumenfeld
Community Development Director
9770 Culver Blvd.
Culver City, CA 90232

Subject: Notification of Public Hearing for the 2010 Urban Water Management Plan (UWMP)
Golden State Water Company – Culver City Water Systems.

Dear Sol:

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

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

Culver City Customer Service Office
10758 Washington Blvd.
Culver City, CA 90232

A public hearing to solicit comments on the draft UWMP will be held at 6:00 p.m., on Wednesday, August 10, 2011 and take place at:

Veterans Memorial Complex
4117 Overland Avenue
Culver City, CA

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

Very truly yours,
GOLDEN STATE WATER COMPANY

Ernie Gisler
Planning Manager

Daily Breeze

21250 HAWTHORNE BLVE, STE 170 * TORRANCE CALIFORNIA 90503-4077
Direct: (310) 543-6635 Fax: (310) 316-6827

PROOF OF PUBLICATION (201 5.5 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 THE DAILY BREEZE

a newspaper of general circulation, printed and published

in the City of Torrance*
County of Los Angeles, and which newspaper has been adjudged a newspaper of general circulation by the Superior Court of County of Los Angeles, State of California, under the date of

June 10, 1974

Case Number SWC7146
that the notice, of which the annexed is a printed copy (set in type not smaller than nonpareil), has been published in each regular and entire issue of said newspaper and not in any supplement there of on the following dates, to-wit

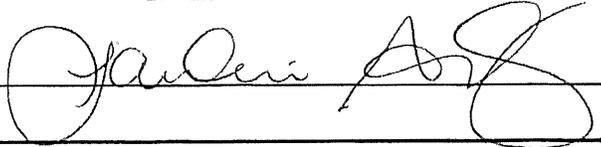
June 8, 15, 22,

all in the year 2011

the foregoing is true and correct.

Dated at Torrance

California, this 22 June 2011



*The Daily Breeze circulation includes the following cities:
Carson, Compton, Culver City, El Segundo, Gardena, Harbor City, Hawthorne, Hermosa Beach, Inglewood, Lawndale, Lomita, Long Beach, Manhattan Beach, Palos Verdes Peninsula, Palos Verdes, Rancho Palos Verdes, Rancho Palos Verdes Estates, Redondo Beach, San Pedro, Santa Monica, Torrance and Wilmington

This space is for the County Clerk's Filing Stamp

Proof of Publication of



Golden State
Water Company
A Subsidiary of American States Water Company

Notice of Public Hearing

In conformance with the California Urban Water Management Planning Act, Golden State Water Company (GSWC) is hosting a public hearing on August 10, from 6 p.m. to 7 p.m. at the Veterans Memorial Complex, 4117 Overland Ave., Culver City, to solicit comments on the Urban Water Management Plan (UWMP) for the company's Culver City Water System.

The UWMP is 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 the following location:

Culver City Customer Service Office
10758 Washington Blvd.
Culver City, CA 90232

For more information, visit www.gswater.com.
CNS#2113934



* A 0 0 0 0 0 2 2 3 0 9 9 5 *



Search

- About Golden State Water Company
- Customer Service**
- Conservation Information & Rebates
- Rates, Schedules & Tariffs
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[Frequently Asked Questions](#)

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[Find Local Office Information](#) » Culver City

Culver City Customer Service Area

Areas Served

The Customer Service Area serves approximately 9,470 customers in Culver City.

Office Location

Culver City CSA
10758 Washington Blvd.
Culver City, CA 90232

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

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)

WATER CONSERVATION TIPS

Run only full loads in the washing machine and dishwasher and save 300 to 800 gallons a month.

Urban Water Management Plan Public Meeting Notice

Golden State Water Company is in the process of updating its existing Urban Water Management Plan and is seeking public input. The plan is expected to be available for review one week prior to the meeting date.

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

Monthly Billing Beginning in June 2011 for Culver City Customer Service Area

Starting June 1, Golden State Water Company (GSWC) customers in the Culver City Customer Service Area will begin receiving monthly bills instead of bi-monthly bills. [See more information.](#)

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 Culver City Customer Service Area for 2010, 2011 and 2012

The California Public Utilities Commission (CPUC), which regulates Golden State Water Company (GSWC) to ensure adequate levels of service are provided at the lowest reasonable costs, 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 Culver City 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 Culver City Customer Service Area to Encourage Water Use Efficiency

Golden State Water Company (GSWC) residential customers in the utility's Culver City 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 Culver City 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 Culver City Customers

Golden State Water Company developed a water shortage plan ([Schedule 14.1](#)) for its Culver City Customer Service Area that asks customers to voluntarily reduce their usage based on historical averages. Read additional plan details [here](#). Each water allocation is based on the customer's average historical usage in 2004, 2005, and 2006, minus 10 percent.

Additionally, water use restrictions are now in place. GSWC may issue fines to customers who are involved in water wasting activities such as using water in any manner that results in run-off in gutters, waterways, patios, driveways or streets. Repeated violations could lead to the installation of flow restrictors at the customer's cost and suspension of service. See [list of restrictions](#).

Should a mandatory allocation stage be implemented, exception forms will be available for customers to request an allocation adjustment. For example, if a household added several people since 2006, or if customers require additional water for medical needs, they may be eligible for a higher water budget. Water conservation practices and devices may be evaluated as part of the exception evaluation process.

Since the targeted reductions in the current stage for Culver City 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 Culver City customers. Funding is limited.

FREE Smart Irrigation Controllers
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

 [Culver City](#)

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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 Highest: 139

Acceptable GPCD for 2010: 173

On Track



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?	Albert Frias Water Conservation Coordinator AlbertFrias@gswc On Track	Albert Frias Water Conservation Coordinator AlbertFrias@gswc On Track	
2. Water waste prevention documentation			
Descriptive File	http://www.aswater.com/Organiz		
Descriptive File 2010			Rule 20 = Water Conservation. Rule 11B = Discontinuance of Service based upon Water Wastage. Rule 14.1 can be implemented when mandatory conservation measures are necessary to maintain sufficient water
URL	Retail		done, plus
URL 2010		http://www.aswater.com/Organization/Rates_and_Regulations/Rates_and_Tariffs/Rule_20.pdf	documentation or links provided
Describe Ordinance Terms	Retail		
Describe Ordinance Terms 2010		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

On Track



CUWCC BMP RETAIL COVERAGE REPORT 2009-2010
Foundation Best Management Practices for Urban Water Efficiency

BMP 1.2 Water Loss Control

	2009	2010
Complete Standard Water Audit using AWWA Software?	Yes	Yes
See Note below		
AWWA files for each area provided to CUWCC?	Yes	On Track
AWWA Water Audit Validity Score?	See files	On Track
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	0	0
Value Real Losses	\$ -	\$ -
Value Appearant Losses	\$ -	\$ -
Miles Surveyed	0	0
Press Reduction	0	0
Cost of Interventions	\$ -	\$ -
Water Saved	0	0

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

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

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

BMP 1.2 Water Loss Control

	2009	2010
Complete Standard Water Audit using AWWA Software?	Yes	Yes
AWWA file provided to CUWCC?	Yes	On Track
AWWA Water Audit Validity Score?	See files	On Track
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	0	0
Value Real Losses	\$ -	\$ -
Value Appearant Losses	\$ -	\$ -
Miles Surveyed	0	0
Press Reduction	0	0
Cost of Interventions	\$ -	\$ -
Water Saved	0	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



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
Numbered Unmetered Accounts	0	0
Metered Accounts billed by volume of use	Yes	Yes
Number of CII accounts with Mixed Use meters	2,028	2,050
Conducted a feasibility study to assess merits of a program to provide incentives to switch mixed-use accounts to dedicated landscape meters?	No	No
Feasibility Study provided to CUWCC?	No	No
Completed a written plan, policy or program to test, repair and replace meters	Yes	Yes

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

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.



CUWCC BMP RETAIL COVERAGE REPORT 2009-2010

Foundation Best Management Practices for Urban Water Efficiency

Agency: **Golden State Water Company** District Name: **Metro** CUWCC Unit #: **5041**
 Retail 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 On Track if: Increasing Block, Uniform, Allocation, Standby Service; Not on Track if otherwise
 Date 2010 data received June 15, 2011

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.



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.

	2009 Yes	2010 Yes	Yes/No
Metropolitan Water District of Los Angeles, West Basin Municipal Water District, Central Basin Municipal Water District	25	25	
	4	4	
	Yes	Yes	
Newsletters articles on conservation			
Website			
Newspaper contacts			
	\$ 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	

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

	2009	2010	Yes/No
Does a wholesale agency implement School Education Programs for this unity's benefit? Name of Wholesale Supplier?	No 0	No 0	
1) Curriculum materials developed and/or provided by agency	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	
2) Materials meet state education framework requirements and are grade-level appropriate?	Yes Yes	Yes Yes	All 5 actions types implemented and reported to CUWCC to be On
3) Materials Distributed to K-6? Describe K-6 Materials	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
Materials distributed to 7-12 students?	No \$ 200,000	No \$ 200,000	Info Only
4) Annual budget for school education program.	Harvest Festival & Water Awareness Month held at West Basin.	Harvest Festival & Water Awareness Month held at West Basin.	
5) Description of all other water supplier education programs	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

Compliance Option Chosen By Reporting Agency: Flex Track Email: johnturner@gswater.com

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 SF Target	2009 Multi Family Units	2009 MF Targets
2009 Single Family Accounts	50,487		21,637	
13,286			97	
3,186	757	32	325	325
26,572		900	194	
10,100	On Track	65	On Track	

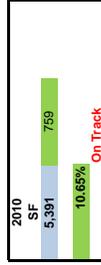
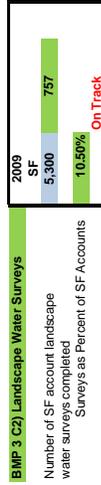
	2010	2010 SF Target	2010 Multi Family Units	2010 MF Targets
2010 Single Family Accounts	50,620		21,694	
14,100			119	
2,945	759	20	325	325
28,200		921	55	
11,045	On Track	27	On Track	

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



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



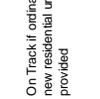
On Track if number of incentives for HECW (WF_#5.0) => 0.9% SF accounts in 2009 and 1.0 % in 2010



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



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



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

Enter District ID No. 5041

Agency Row #

2010 BMP 5

2009 BMP 5

Data File Name



CUWCC BMP COVERAGE REPORT

Traditional BMP 4 - Commercial Industrial Institutional

Agency: **Golden State Water Company**
 Primary Contact: John Turner
 Compliance Option Chosen By Reporting Agency:
 Date Agency Signed MOU: 12/1/1991

District Name: **Metro**
 Email: johnturner@gswater.com

CUWCC Unit #: **5041**

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)	282	25.97	40	3.44	Incentive	
3 Ultra Low Flow Urinals	55	6.41	200	18.42	Incentive	
4 Zero Consumption Urinals						
5 Commercial High Efficiency Single Load Clothes Washers					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	1	0.15				
11 Pressurized Water Brooms						
12 Dry Vacuum Pumps						
Total Water Savings		85.41		42.73		

128.14

On Track

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

Agency Row #

Enter District ID No.
5041

2010 BMP 5

2009 BMP 5

Data File Name



CUWCC BMP COVERAGE REPORT

Traditional BMP 5 - Landscape

Agency: Golden State Water Company

Primary Contact John Turner

Compliance Option Chosen By Reporting Agency:

Date Agency Signed MOU: 12/11/1991

District Name: Metro

Email: johnturner@gswater.com

Report Date:

CUWCC Unit #: 5041

y/n

Initial 10 year period completed: Y/N If "Yes", 50% credit for past BMP 9 Implementation? y/n

Required Documentation

Number of dedicated irrigation meter accounts

Number of dedicated irrigation meter accounts with water budgets.

Percent of dedicated irrigation meters with water budgets

Target Rate for Year 1

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.

Aggregate acreage of recreational areas assigned water budgets and average ET for dedicated recreational landscape accounts with budgets.

2009

298

9%

2009 Acres 2009 Average ET

2009 Accounts $\geq 20\%$ over-budget Number of Offered Technical Assistance

2009 Acres 2009 Average ET

2010

341

18%

2010 Acres 2010 Average ET

2010 Accounts $\geq 20\%$ over-budget Number of Offered Technical Assistance

2010 Acres 2010 Average ET

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.

Not On Track - No Data

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 by Customers
Rebate Smart Irrigation Controller-Rebates Timers	2125	4

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

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

2009 Surveys	
Number offered.	Number accepted
14	14

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.)

Landscape Irrigation Surveys

On Track if the percent of CII accounts with mixed-use meters receiving a landscape water use survey equals or exceeds the following: 1.5% by the end of the first reporting period (year two) following the date implementation is to commence; 3.6% by the end of year four; 6.3% by the end of year six; 9.6% by the end of year four.

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

2009 Savings AF
Not On Track - No Data

2010 Savings AF
Not On Track - No Data

Not On Track - No Data

Appendix D

CPUC Water Conservation and Rationing Rules and Regulations

Rule No. 11

DISCONTINUANCE AND RESTORATION OF SERVICE

A. Customer's Request for Discontinuance of Service

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

B. Discontinuance of Service by Utility

1. For Nonpayment of Bills

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

(T)

(Continued)

Rule No. 11

DISCONTINUANCE AND RESTORATION OF SERVICE

(Continued)

B. Discontinuance of Services by Utility (Continued)

1. For Nonpayment of Bills (Continued)

- c. Any customer, residential as well as nonresidential, who has initiated a billing complaint or requested an investigation within 5 days of receiving a disputed bill or who has, before discontinuance of service made a request for extension of the payment period of a bill asserted to be beyond the means of the customer to pay in full within the normal period for payment, shall not have residential water service discontinued for nonpayment during the pendency of an investigation by the utility of such customer complaint or request and shall be given an opportunity for review of the complaint, investigation, or request by a review manager of the utility. The review shall include consideration of whether a residential customer shall be permitted to make installment payments on any unpaid balance of the delinquent account over a reasonable period of time, not to exceed 12 months. Such service shall not be discontinued for nonpayment for any customer complying with an installment payment agreement entered into with the utility, provided the customer also keeps current his account for water service as charges accrue in each subsequent billing period. If a residential customer fails to comply with an installment payment agreement, the utility will give a 10-day discontinuance of service notice before discontinuing such service, but such notice shall not entitle the customer to further investigation by the utility.
- d. Any customer whose complaint or request for an investigation pursuant to subdivision (c) has resulted in an adverse determination by the utility may appeal the determination to the Commission. Any subsequent appeal of the dispute or complaint to the Commission shall be in accordance with the Commission adopted Rules of Practice and Procedure.
- e. Service to a residential water customer will not be discontinued for nonpayment when the customer has previously established to the satisfaction of the utility that:

(Continued)

Rule No. 11

DISCONTINUANCE AND RESTORATION OF SERVICE

(Continued)

B. Discontinuance of Services by Utility (Continued)

1. For Nonpayment of Bills (Continued)

e. (Continued)

- (1) The customer is elderly (age 62 or over) or handicapped,* or upon certification of a licensed physical or surgeon that to discontinue water will be life threatening to the customer; and

*Proof of age must be supported by certificate of birth, driver's license, passport or other reliable document. Proof of handicap must be by certification from a licensed physician, surgeon, public health nurse or social worker.

- (2) The customer is temporarily unable to pay for such service in accordance with the provisions of the utility's tariffs; and
- (3) The customer is willing to arrange installment payments satisfactory to the utility, over a period not to exceed 12 months, including arrangements for prompt payment of subsequent bills.

However, service may be discontinued to any customer who does not comply with an installment payment agreement or keep current his account for water service as charges accrue in each subsequent billing period.

- (f) A customer's residential service may be discontinued for nonpayment of a bill for residential service previously rendered him at any location served by the utility.

A nonresidential service may be discontinued for nonpayment of a bill for residential as well as nonresidential service previously rendered him at any location served by the utility.

The discontinuance of service notice as set forth in subdivision (b) will be given in both cases stated above before discontinuance of service takes place.

(Continued)

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F. E. WICKS

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President

Resolution No. W 3770

Rule No. 11

DISCONTINUANCE AND RESTORATION OF SERVICE
(Continued)

B. Discontinuance of Services by Utility (Continued)

1. For Nonpayment of Bills (Continued)

f. (Continued)

Residential services will not, however, be discontinued for nonpayment of bills for separate nonresidential service.

g. Service will not be discontinued by reason of delinquency in payment for service on any Saturday, Sunday, legal holiday, or at any time during which the business offices of the utility are not open to the public.

h. Where water service is provided to residential users in a multi-unit residential structure, mobilehome park, or permanent residential structures in a labor camp, where the owner, manager, or operator is listed by the utility as the customer of record, the utility will make every good faith effort to inform the users, when the account is in arrears, that service will be discontinued. Notice will be in as prescribed in subdivision (a) above, and in Rules Nos. 5 and 8. (T)

(1) Where said users are individually metered. (N)

The utility is not required to make service available to these users unless each user agrees to the terms and conditions of service and meets the requirement of the law and the utility's rules and tariffs. However, if one or more users are willing and able to assume responsibility for subsequent charges by these users to the account to the satisfaction of the utility, and if there is a practical physical means, legally available to the utility of selectively providing services to these users who have met the requirements of the utility's rules and tariffs, the utility will make service available to these users. For these selected users establishment of credit will be as prescribed in Rule No. 6, except that where prior service for a period of time is a condition for establishing credit with the utility, proof that is acceptable to the utility of residence and prompt payment of rent or other credit obligation during that period of time is a satisfactory equivalent. (N)

(Continued)

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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. _____

ISSUED BY
F. E. WICKS
President

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Resolution No. _____

Rule No. 11

DISCONTINUANCE AND RESTORATION OF SERVICE

(Continued)

B. Discontinuance of Services by Utility (Continued)

1. For Nonpayment of Bills (Continued)

h. (Continued)

(2) Where said users are master metered.

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

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

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

(N)

(N)

(Continued)

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Resolution No. W 3770

Rule No. 11

DISCONTINUANCE AND RESTORATION OF SERVICE

(Continued)

B. Discontinuance of Services by Utility (Continued)

1. For Nonpayment of Bills (Continued)

i. A reasonable attempt must be made by the utility to personally contact an adult person on the residential customer's premises either by telephone, or in person, at hours prior to discontinuance. For elderly or handicapped residential customers, the utility shall provide at least 48 hours' notice by telephone or in person. For these customers, if telephone or personal contact cannot be made, a notice of discontinuance of service shall be posted in a conspicuous location at the service address at least 48 hours prior to discontinuance. Such notice shall be independent of and in addition to, other notices(s) as may be prescribed in the utility's tariffs. (C)
(N)
(N)
(N)

j. Residential Customer's Remedies Upon Receipt of Discontinuance Notice.

- (1) If upon receipt of a 10 day discontinuance notice, a residential customer is unable to pay, he must contact the utility before discontinuance of service to make payment arrangements to avoid discontinuance of service.
- (2) If, after contacting the utility, the residential customer alleges to the Commission an inability to pay and that he is unable to make payment arrangements with the utility he should write to the Commission's Consumer Affairs Branch (CAB) to make an informal complaint. This action must be taken within the 10-day discontinuance of service notice.
- (3) The CAB's resolution of the matter will be reported to the utility and the residential customer within ten business days after receipt of the informal complaint. If the customer is not satisfied with such resolution, he must file, within ten business days after the date of the CAB's letter, a formal complaint with the Commission under Public Utilities Code Section 1702 on a form provided by the CAB.

(Continued)

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Resolution No. W 3770

Rule No. 11

DISCONTINUANCE AND RESTORATION OF SERVICE

(Continued)

B. Discontinuance of Services by Utility (Continued)

1. For Nonpayment of Bills (Continued)

j. Residential Customer's Remedies Upon Receipt of Discontinuance Notice.

(4) Failure of the residential as well as the nonresidential customer to observe these time limits shall entitle the utility to insist upon payment or, upon failure to pay, to discontinue the customer's service.

k. Designation of a Third-Party Representative (Elderly or Handicapped only)

(1) Customer must inform utility if he desires that a third party receive discontinuance or other notices on his behalf.

(2) Utility must be advised of name, address and telephone number of third party with a letter from third party accepting this responsibility.

(3) Only customers who certify that they are elderly or handicapped are entitled to third-party representation.*

2. For Noncompliance with Rules

The utility may discontinue service to any customer for violation of these rules after it has given the customer at least five days' written notice of such intention. Where safety of water supply is endangered, service may be discontinued immediately without notice.

3. For Waste of Water

a. Where negligent or wasteful use of water exists on customer's premises, the utility may discontinue the service if such practices are not remedied within five days after it has given the customer written notice to such effect.

(Continued)

* Proof of age must be supported by certificate of birth, driver's license, passport or other reliable document. Proof of handicap must be by certification from a licensed physician, public health nurse or social worker.

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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

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F. E. WICKS

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Resolution No. W 3770

W

Rule No. 11

DISCONTINUANCE AND RESTORATION OF SERVICE

(Continued)

B. Continuance of Services by Utility (Continued)

3. For Waste of Water (Continued)

b. In order to protect itself against serious and unnecessary waste or misuse of water, the utility may meter any flat rate service and apply the regularly established meter rates where the customer continues to misuse or waste water beyond five days after the utility has given the customer written notice to remedy such practices.

4. For Unsafe Apparatus or Where Service is Detrimental or Damaging to the Utility or its Customers

If an unsafe or hazardous condition is found to exist on the customer's premise, or if the use of water thereon by apparatus, appliances, equipment or otherwise is found to be detrimental or damaging to the utility or its customers, the service may be shutoff without notice. The utility will notify the customer immediately of the reasons for the discontinuance and the corrective action to be taken by the customer before service can be restored.

5. For Fraudulent Use of Service

When the utility has discovered that a customer has obtained service by fraudulent means, or has diverted the water service for unauthorized use, the service to that customer may be discontinued without notice. The utility will not restore service to such customer until that customer has complied with all filed rules and reasonable requirements of the utility and the utility has been reimbursed for the full amount of the service rendered and the actual cost to the utility incurred by reason of the fraudulent use.

C. Restoration of Service

1. Reconnection Charge

Where service has been discontinued for violation of these rules or for nonpayment of bills, the utility may charge \$25.00 for reconnection of service during regular working hours or \$37.50 (I) for reconnection of service at other than regular working hours when the customer has requested that the reconnection be made at other than regular working hours.

(Continued)

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Rule No. 11

DISCONTINUANCE AND RESTORATION OF SERVICE

(Continued)

C. Restoration of Service (Continued)

2. To be Made During Regular Working Hours

The utility will endeavor to make reconnections during regular working hours on the day of the request, if the conditions permit; otherwise reconnections will be made on the regular working day following the day the request is made.

3. To Be Made at Other Than Regular Working Hours

When a customer has requested that the reconnection be made at other than regular working hours, the utility will reasonably endeavor to so make the reconnection if practicable under the circumstances.

4. Wrongful Discontinuance

A service wrongfully discontinued by the utility, must be restored without charge for the restoration to the customer within 24 hours.

D. Refusal to Serve

1 Conditions for Refusal

The utility may refuse to serve an applicant for service under the following conditions:

- a. If the applicant fails to comply with any of the rules as filed with the Public Utilities Commission.
- b. If the intended use of the service is of such a nature that it will be detrimental or injurious to existing customers.
- c. If, in the judgment of the utility, the applicant's installation for utilizing the service is unsafe or hazardous, or of such nature that satisfactory service cannot be rendered.

(Continued)

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F. E. WICKS

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President

Resolution No. W 3770

Rule No. 11

DISCONTINUANCE AND RESTORATION OF SERVICE

(Continued)

C. Restoration of Service (Continued)

1. Conditions for Refusal (Continued)

d. Where service has been discontinued for fraudulent use, the utility will not serve an applicant until it has determined that all conditions of fraudulent use or practice has been corrected.

2. Notification to Customers

When an applicant is refused service under the provisions of this rule, the utility will notify the applicant promptly of the reason for the refusal to service and of the right of applicant to appeal the utility's decision to the Public Utilities Commission.

RULE 14.1
WATER CONSERVATION AND RATIONING PLAN

Page 1

GENERAL INFORMATION

1. If water supplies are projected to be insufficient to meet normal customer demand, and are beyond the control of the utility, the utility may elect to implement voluntary conservation using the portion of this plan set forth in Section A of this Rule, after notifying the Director of the Commission's Division of Water and Audits of its intent, via a letter in both hard-copy and e-mailed formats.
2. Prior to declaration of mandatory rationing, a utility may request authorization of a Schedule 14.1 – Staged Mandatory Water Conservation and Rationing tariff, via a Tier 2 advice letter.
3. If, in the opinion of the utility, more stringent water measures are required, the utility shall request Commission authorization to implement the staged mandatory conservation and rationing measures set forth in Sections B through E.
4. The utility shall file a Tier 1 advice letter to request activation of a particular stage of Schedule 14.1 – Staged Mandatory Water Conservation and Rationing tariff.
 - a. If a Declaration of Mandatory Rationing is made by utility or governing agency, or
 - b. If the utility is unable to address voluntary conservation levels set by itself, supplier, or governing agency, or
 - c. If the utility chooses to subsequently activate a different stage
5. When Schedule 14.1 is in effect and the utility determines that water supplies are again sufficient to meet normal demands, and mandatory conservation and rationing measures are no longer necessary, the utility shall seek Commission approval via a Tier 1 advice letter to de-activate the particular stage of mandatory rationing that had been authorized.

(N)

(N)

(Continued)

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Decision No. _____

ISSUED BY
R. J. SPROWLS
President

Date Filed June 22, 2009
Effective Date June 20, 2009
Resolution No. _____

RULE 14.1
WATER CONSERVATION AND RATIONING PLAN

Page 2
(N)

GENERAL INFORMATION (Continued)

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

A. CONSERVATION - NON-ESSENTIAL OR UNAUTHORIZED WATER USE

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

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

(N)

(Continued)

RULE 14.1
WATER CONSERVATION AND RATIONING PLAN

Page 3

GENERAL INFORMATION (Continued)

7. Use of potable water for watering streets with trucks, except for initial wash-down for construction purposes (if street sweeping is not feasible), or to protect the health and safety of the public;
8. Use of potable water for construction purposes, such as consolidation of backfill, dust control, or other uses unless no other source of water or other method can be used.
9. Use of potable water for construction purposes unless no other source of water or other method can be used;
10. Use of potable water for street cleaning;
11. Operation of commercial car washes without recycling at least 50% of the potable water used per cycle;
12. Use of potable water for watering outside plants, lawn, landscape and turf areas during certain hours if and when specified in Schedule No. 14.1 when the schedule is in effect;
13. Use of potable water for decorative fountains or the filling or topping off of decorative lakes or ponds. Exceptions are made for those decorative fountains, lakes, or ponds which utilize recycled water;
14. Use of potable water for the filling or refilling of swimming pools.
15. Service of water by any restaurant except upon the request of a patron; and
16. Use of potable water to flush hydrants, except where required for public health or safety.

(N)

B. STAGED MANDATORY RATIONING OF WATER USAGE

1. Prior to declaration of mandatory rationing, a utility may request authorization of a Schedule 14.1 – Staged Mandatory Water Conservation and Rationing tariff, via a Tier 2 advice letter, with full justification. The utility may not institute Schedule 14.1 until it has been authorized to do so by the Commission.

(N)

(Continued)

RULE 14.1
WATER CONSERVATION AND RATIONING PLAN

Page 4

STAGED MANDATORY RATIONING OF WATER USAGE (Continued)

(N)

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

(N)

(Continued)

RULE 14.1
WATER CONSERVATION AND RATIONING PLAN

STAGED MANDATORY RATIONING OF WATER USAGE (Continued)

Page 5

- 7. Conditions for installation of a flow restrictor, (N)
- 8. Charges for removal of flow restrictors, and
- 9. Special Conditions
- ii. Justification for, and documentation and calculations in support of plan, including but not limited to each item in B.1.d.i above.
- 2. Number of Stages requested by each utility/district may vary, depending on specifics of water shortage event.
- 3. The utility shall file a Tier 1 advice letter to request activation of a particular stage of Schedule 14.1 – Staged Mandatory Water Conservation and Rationing tariff.
 - a. If a Declaration of Mandatory Rationing is made by utility or governing agency,
 - b. If the utility is unable to address voluntary conservation levels set by itself or governing agency, or
 - c. If the utility chooses to subsequently activate a different stage.
 - d. The Tier 1 advice letter requesting activation of a Schedule 14.1 shall include but not be limited to:
 - i. Justification for activating this particular stage of mandatory rationing, as well as period during which this particular stage of mandatory conservation and rationing measures will be in effect.
 - ii. When the utility requests activation of a particular Stage, it shall notify its customers as detailed in Section E, below.
- 4. All monies collected by the utility through water use violation fines shall not be accounted for as income.
- 5. All expenses incurred by utility to implement Rule 14.1 and Schedule 14.1 that have not been considered in a General Rate Case or other proceeding, shall be recoverable by utility if determined to be reasonable by Commission.

(N)

(Continued)

RULE 14.1
WATER CONSERVATION AND RATIONING PLAN

STAGED MANDATORY RATIONING OF WATER USAGE (Continued)

Page 6

(N)

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

C. ENFORCEMENT OF STAGED MANDATORY CONSERVATION AND RATIONING

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

(N)

(Continued)

RULE 14.1
WATER CONSERVATION AND RATIONING PLAN

ENFORCEMENT OF STAGED MANDATORY CONSERVATION AND RATIONING

(Continued)

Page 7
(N)

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

D. APPEAL PROCEDURE

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

(N)

(Continued)

RULE 14.1
WATER CONSERVATION AND RATIONING PLAN

APPEAL PROCEDURE (Continued)

Page 8

(N)

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

E. PUBLICITY

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

(N)

(Continued)

RULE 14.1
WATER CONSERVATION AND RATIONING PLAN

PUBLICITY (Continued)

Page 9

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

(N)

(N)

Rule No. 20

WATER CONSERVATION

(N)

A. Purpose

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

B. Waste of Water Discouraged

Refer to Rule 11 B. (3).

C. Use of Water-Saving Devices and Practices

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

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

D. Water-Saving Kits

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

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

(N)

ISSUED BY

W. W. FRANKLIN

President

Date Filed June 12, 1978

Effective Date July 12, 1978

Resolution No. _____

Advice Letter No. 521-W

Decision No. 88466

Appendix E

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. This surcharge will recover the undercollection in the WRAM/MCBA Balancing Accounts, as of December 31, 2009. (C)
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. _____

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, 2010

Advice Letter No. 1423-W

R. J. SPROWLS

Effective Date: January 1, 2011

Decision No. 10-11-035

President

Resolution No. _____

AWWA WLCC Water Audit Software: Reporting Worksheet

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WASv3.0

[Back to Instructions](#)

Water Audit Report for: **Golden State Water Company - Culver City**
 Reporting Year: **2008**

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

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

WATER SUPPLIED

Volume from own sources:	<input type="button" value="M"/>	<input type="text" value="0.000"/>	acre-ft/yr
Master meter error adjustment:	<input type="button" value="E"/>	<input type="text" value="0.000"/>	under-registered acre-ft/yr
Water imported:	<input type="button" value="M"/>	<input type="text" value="6,291.000"/>	acre-ft/yr
Water exported:	<input type="button" value="M"/>	<input type="text" value="0.000"/>	acre-ft/yr

WATER SUPPLIED: acre-ft/yr

AUTHORIZED CONSUMPTION

Billed metered:	<input type="button" value="M"/>	<input type="text" value="5,953.000"/>	acre-ft/yr
Billed unmetered:	<input type="button" value="E"/>	<input type="text" value="50.000"/>	acre-ft/yr
Unbilled metered:	<input type="button" value="E"/>	<input type="text" value="5.000"/>	acre-ft/yr
Unbilled unmetered:	<input type="button" value="M"/>	<input type="text" value="78.638"/>	acre-ft/yr

AUTHORIZED CONSUMPTION: acre-ft/yr

Click here: for help using option buttons below

Pcnt: Value:

Use buttons to select percentage OR value

WATER LOSSES (Water Supplied - Authorized Consumption)

acre-ft/yr

Apparent Losses

Unauthorized consumption:	<input type="button" value="M"/>	<input type="text" value="15.728"/>	acre-ft/yr
Customer metering inaccuracies:	<input type="button" value="M"/>	<input type="text" value="121.592"/>	acre-ft/yr
Systematic data handling errors:	<input type="button" value="E"/>	<input type="text" value="10.000"/>	acre-ft/yr
Apparent Losses:		<input type="text" value="147.319"/>	acre-ft/yr

Pcnt: Value:
 Value:

Real Losses

Real Losses = (Water Losses - Apparent Losses): acre-ft/yr

WATER LOSSES: acre-ft/yr

NON-REVENUE WATER

NON-REVENUE WATER: acre-ft/yr

SYSTEM DATA

Length of mains:	<input type="button" value="M"/>	<input type="text" value="106.0"/>	miles
Number of active AND inactive service connections:	<input type="button" value="M"/>	<input type="text" value="9,820"/>	
Connection density:		<input type="text" value="93"/>	conn./mile main
Average length of customer service line:	<input type="button" value="E"/>	<input type="text" value="50.0"/>	ft (pipe length between curbstop and customer meter or property boundary)
Average operating pressure:	<input type="button" value="M"/>	<input type="text" value="85.5"/>	psi

COST DATA

Total annual cost of operating water system:	<input type="button" value="M"/>	<input type="text" value="\$6,329,945"/>	\$/Year
Customer retail unit cost (applied to Apparent Losses):	<input type="button" value="E"/>	<input type="text" value="\$40.77"/>	\$/100 cubic feet (ccf)
Variable production cost (applied to Real Losses):	<input type="button" value="M"/>	<input type="text" value="\$704.00"/>	\$/acre-ft/yr

DATA REVIEW - Please review the following information and make changes above if necessary:

- Input values should be indicated as either measured or estimated. You have entered:
7 as measured values
6 as estimated values
2 as default values
If using a default value (purple cells), leave 'Measured or Estimated' cell blank
- 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:
- Cost Data: No problems identified

PERFORMANCE INDICATORS

Financial Indicators

Non-revenue water as percent by volume:	<input type="text" value="4.6%"/>
Non-revenue water as percent by cost:	<input type="text" value="42.9%"/>
Annual cost of Apparent Losses:	<input type="text" value="\$2,616,305"/>
Annual cost of Real Losses:	<input type="text" value="\$40,158"/>

Operational Efficiency Indicators

Apparent Losses per service connection per day:	<input type="text" value="13.39"/>	gallons/connection/day
Real Losses per service connection per day*:	<input type="text" value="5.19"/>	gallons/connection/day
Real Losses per length of main per day*:	<input type="text" value="N/A"/>	
Real Losses per service connection per day per psi pressure:	<input type="text" value="0.06"/>	gallons/connection/day/psi
<input type="button" value="M"/> Unavoidable Annual Real Losses (UARL):	<input type="text" value="85.63"/>	million gallons/year
<input type="button" value="M"/> Infrastructure Leakage Index (ILI) [Real Losses/UARL]:	<input type="text" value="0.22"/>	

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

Appendix F

(Not Applicable; Appendix Intentionally **Not** Included)

Appendix G

Summary of Population Based on Census Data

Urban Water Management Plan

Culver City System

Appendix G-1: Census Tracts within the Culver City System

County	Subregion	City	Census Tract	Percentage of Tract in System
Los Angeles	City of Los Angeles	Los Angeles city	275601	8%
Los Angeles	Westside Cities	Culver City city	702400	100%
Los Angeles	Westside Cities	Culver City city	702501	100%
Los Angeles	Westside Cities	Culver City city	702502	100%
Los Angeles	Westside Cities	Culver City city	702600	100%
Los Angeles	Westside Cities	Culver City city	702700	100%
Los Angeles	Westside Cities	Culver City city	702801	100%
Los Angeles	Westside Cities	Culver City city	702802	100%
Los Angeles	Westside Cities	Culver City city	703001	100%
Los Angeles	Westside Cities	Unincorporated	703001	0%, 10%, 30% ¹

Note:

¹ School building; 0% was taken for population, 10% for household and 30% for employment

Urban Water Management Plan
Culver City System

Table G-2: Population, Household and Employment Projections for Culver City System

Census Tract	County	Subregion	City	Population							Percentage of Tract in System
				2005	2010	2015	2020	2025	2030	2035	
275601	Los Angeles	City of Los Angeles	Los Angeles city	3,338	3,433	3,499	3,571	3,641	3,708	3,772	8%
702400	Los Angeles	Westside Cities	Culver City city	5,043	5,123	5,154	5,190	5,224	5,258	5,289	100%
702501	Los Angeles	Westside Cities	Culver City city	4,875	4,894	4,903	4,920	4,937	4,952	4,966	100%
702502	Los Angeles	Westside Cities	Culver City city	4,270	4,294	4,304	4,322	4,339	4,354	4,369	100%
702600	Los Angeles	Westside Cities	Culver City city	6,312	6,337	6,351	6,375	6,398	6,420	6,440	100%
702700	Los Angeles	Westside Cities	Culver City city	3,458	3,507	3,525	3,548	3,569	3,589	3,608	100%
702801	Los Angeles	Westside Cities	Culver City city	5,335	5,335	5,339	5,354	5,368	5,381	5,394	100%
702802	Los Angeles	Westside Cities	Culver City city	2,408	2,510	2,553	2,594	2,634	2,671	2,706	100%
703001	Los Angeles	Westside Cities	Culver City city	5,766	5,878	5,918	5,966	6,011	6,053	6,092	100%
703001	Los Angeles	Westside Cities	Unincorporated	0	0	0	0	1	1	2	0%
Total Population Based on SCAG				37,734	38,153	38,327	38,555	38,771	38,975	39,166	
SCAG Growth Rate						0%	1%	1%	1%	0%	

Census Tract	County	County	City	Households							Percentage of Tract in System
				2005	2010	2015	2020	2025	2030	2035	
275601	Los Angeles	City of Los Angeles	Los Angeles city	1,342	1,493	1,634	1,773	1,882	1,986	2,072	8%
702400	Los Angeles	Westside Cities	Culver City city	1,910	1,946	1,979	2,014	2,042	2,068	2,090	100%
702501	Los Angeles	Westside Cities	Culver City city	2,127	2,154	2,180	2,208	2,229	2,249	2,266	100%
702502	Los Angeles	Westside Cities	Culver City city	2,072	2,111	2,148	2,186	2,216	2,245	2,269	100%
702600	Los Angeles	Westside Cities	Culver City city	2,282	2,317	2,349	2,383	2,409	2,434	2,455	100%
702700	Los Angeles	Westside Cities	Culver City city	1,281	1,300	1,317	1,336	1,350	1,364	1,376	100%
702801	Los Angeles	Westside Cities	Culver City city	1,920	1,955	1,988	2,022	2,049	2,075	2,096	100%
702802	Los Angeles	Westside Cities	Culver City city	885	900	914	929	941	952	961	100%
703001	Los Angeles	Westside Cities	Culver City city	3,083	3,133	3,179	3,229	3,267	3,304	3,335	100%
703001	Los Angeles	Westside Cities	Unincorporated	0	0	0	0	0	1	1	10%
Total Population Based on SCAG				15,667	15,935	16,185	16,449	16,654	16,850	17,014	
SCAG Growth Rate						2%	2%	1%	1%	1%	

Census Tract	County	County	City	Employment							Percentage of Tract in System
				2005	2010	2015	2020	2025	2030	2035	
275601	Los Angeles	City of Los Angeles	Los Angeles city	6,492	7,301	7,941	8,347	8,824	9,333	9,821	8%
702400	Los Angeles	Westside Cities	Culver City city	11,501	11,683	11,827	11,918	12,025	12,139	12,249	100%
702501	Los Angeles	Westside Cities	Culver City city	6,342	6,389	6,426	6,450	6,477	6,506	6,534	100%
702502	Los Angeles	Westside Cities	Culver City city	3,398	3,480	3,546	3,587	3,636	3,688	3,738	100%
702600	Los Angeles	Westside Cities	Culver City city	3,345	3,444	3,522	3,572	3,631	3,694	3,754	100%
702700	Los Angeles	Westside Cities	Culver City city	2,084	2,139	2,183	2,212	2,247	2,284	2,319	100%
702801	Los Angeles	Westside Cities	Culver City city	3,289	3,432	3,545	3,614	3,696	3,783	3,867	100%
702802	Los Angeles	Westside Cities	Culver City city	999	1,052	1,095	1,123	1,157	1,193	1,227	100%
703001	Los Angeles	Westside Cities	Culver City city	11,184	11,401	11,575	11,686	11,816	11,956	12,090	100%
703001	Los Angeles	Westside Cities	Unincorporated	516	525	533	538	545	551	558	30%
Total Population Based on SCAG				42,816	43,762	44,514	44,991	45,554	46,155	46,731	
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

September 1, 2011

City of Culver City
Sol Blumenfeld
Community Development Director
9770 Culver Blvd.
Culver City, CA 90232

Dear: Sol Blumenfeld

RE: Golden State Water Company- 2010 Urban Water Management Plan

Golden State Water Company (GSWC) adopted the 2010 Urban Water Management Plan (UWMP) following a public hearing on August 10, 2011. The 2010 UWMP was adopted in accordance with the Urban Water Management Planning Act and filed with DWR and the California State Library.

Pursuant to Section 10644(a) of the California Water Code, GSWC is required to file a copy of the adopted 2010 UWMP with any city or county within which GSWC provided water. Enclosed for your files is one copy of GSWC's adopted 2010 UWMP. It is also on our website at www.gswater.com.

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

Sincerely,
GOLDEN STATE WATER COMPANY

Ernest A. Gisler
Planning Manager

Enclosure



**Golden State
Water Company**

A Subsidiary of American States Water Company

September 1, 2011

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

Dear: Con Howe

RE: Golden State Water Company- 2010 Urban Water Management Plan

Golden State Water Company (GSWC) adopted the 2010 Urban Water Management Plan (UWMP) following a public hearing on August 10, 2011. The 2010 UWMP was adopted in accordance with the Urban Water Management Planning Act and filed with DWR and the California State Library.

Pursuant to Section 10644(a) of the California Water Code, GSWC is required to file a copy of the adopted 2010 UWMP with any city or county within which GSWC provided water. Enclosed for your files is one copy of GSWC's adopted 2010 UWMP. It is also on our website at www.gswater.com.

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

Sincerely,
GOLDEN STATE WATER COMPANY

Ernest A. Gisler
Planning Manager

Enclosure



**Golden State
Water Company**

A Subsidiary of American States Water Company

September 1, 2011

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

Dear: Gail Goldberg

RE: Golden State Water Company- 2010 Urban Water Management Plan

Golden State Water Company (GSWC) adopted the 2010 Urban Water Management Plan (UWMP) following a public hearing on August 10, 2011. The 2010 UWMP was adopted in accordance with the Urban Water Management Planning Act and filed with DWR and the California State Library.

Pursuant to Section 10644(a) of the California Water Code, GSWC is required to file a copy of the adopted 2010 UWMP with any city or county within which GSWC provided water. Enclosed for your files is one copy of GSWC's adopted 2010 UWMP. It is also on our website at www.gswater.com.

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

Sincerely,
GOLDEN STATE WATER COMPANY

Ernest A. Gisler
Planning Manager

Enclosure



**Golden State
Water Company**

A Subsidiary of American States Water Company

September 1, 2011

County of Los Angeles
Gail Farber
Director Public Works
PO Box 1460
Alhambra, CA 91802

Dear: Gail Farber

RE: Golden State Water Company- 2010 Urban Water Management Plan

Golden State Water Company (GSWC) adopted the 2010 Urban Water Management Plan (UWMP) following a public hearing on August 10, 2011. The 2010 UWMP was adopted in accordance with the Urban Water Management Planning Act and filed with DWR and the California State Library.

Pursuant to Section 10644(a) of the California Water Code, GSWC is required to file a copy of the adopted 2010 UWMP with any city or county within which GSWC provided water. Enclosed for your files is one copy of GSWC's adopted 2010 UWMP. It is also on our website at www.gswater.com.

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

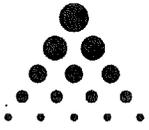
Sincerely,
GOLDEN STATE WATER COMPANY

Ernest A. Gisler
Planning Manager

Enclosure

Appendix I

Documentation of Water Use Projections Submittal



**Golden State
Water Company**

A Subsidiary of American States Water Company

11 February 2011

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

3035 Prospect Park Drive, Ste. 60, Rancho Cordova, CA 95670
Tel: (916) 853-3600 Fax: (916) 852-0171 www.aswater.com

Appendix J

Urban Water Management Plan Checklist

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

No.	UWMP requirement ^a	Callif. 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(c)(2)		1.6	1-7
6	Notify, at least 60 days prior to the public hearing on the plan required by Section 10642, any city or county within which the supplier provides water that the urban water supplier will be reviewing the plan and considering amendments or changes to the plan. Any city or county receiving the notice may be consulted and provide comments.	10621(b)		1.6	1-7
7	Provide supporting documentation that the UWMP or any amendments to, or changes in, have been adopted as described in Section 10640 et seq.	10621(c)		1.6	1-7
54	Provide supporting documentation that the urban water management plan has been or will be provided to any city or county within which it provides water, no later than 60 days after the submission of this urban water management plan.	10635(b)	Appendix H		
55	Provide supporting documentation that the water supplier has encouraged active involvement of diverse social, cultural, and economic elements of the population within the service area prior to and during the preparation of the plan.	10642		1.6	1-7
56	Provide supporting documentation that the urban water supplier made the plan available for public inspection and held a public hearing about the plan. For public agencies, the hearing notice is to be provided pursuant to Section 6066 of the Government Code. The water supplier is to provide the time and place of the hearing to any city or county within which the supplier provides water. Privately-owned water suppliers shall provide an equivalent notice within its service area.	10642		Page vii	Vii
57	Provide supporting documentation that the plan has been adopted as prepared or modified.	10642		1.6	1-7
58	Provide supporting documentation as to how the water supplier plans to implement its plan.	10643		1.8	1-8

No.	UWMP requirement ^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	4-5
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.	Not Applicable	
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)		Not Applicable	
16	Describe the groundwater basin.	10631(b)(2)		Not Applicable	
17	Indicate whether the groundwater basin is adjudicated? Include a copy of the court order or decree.	10631(b)(2)		Not Applicable	
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)		Not Applicable	
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)		Not Applicable	
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.	Not Applicable	
24	Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis.	10631(d)		4.4	4-4

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	4-4
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	4-6
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	4-7
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	4-8
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	4-8
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	4-8
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	4-10
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	4-7
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	4-11

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	4-11
WATER SHORTAGE RELIABILITY AND WATER SHORTAGE CONTINGENCY PLANNING ^p					
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)		6.1.3	6-5
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	6-5
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.