CITY OF PARAMOUNT

2010 Urban Water Management Plan

Prepared By:
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1 INTRODUCTION & PLAN PREPARATION

1.1 INTRODUCTION

The California State Legislature passed AB 797, the Urban Water Management Planning Act (Act) of 1983, which became effective January 1, 1984. The Act requires every urban water supplier providing water for municipal purposes to more than 3,000 customers, or supplying more than 3,000 acre-feet of water annually, to prepare and adopt an Urban Water Management Plan (UWMP). The act also requires urban water suppliers to update the UWMP in years ending in five and zero using a 20 to 25 year planning horizon. The City of Paramount Water Department, a retail water supplier, fits the defined criteria and has prepared this UWMP addressing the requirements set forth in the State of California Water Code Sections 10610 through 10657.

Since its passage, many amendments have been added to the Act. These changes are intended to encourage increased regional planning and the cooperative management of California's most precious commodity - water. As a result, UWMPs have evolved to become:

- Foundation documents and sources of information for Water Supply Assessments and Written Verification of Water Supply,
- Long range planning documents for water supply,
- Source data for the development of regional water plans,
- Source documents for cities and counties preparing their General Plans, and
- Key components of Integrated Regional Water Management Plans.

For the City, the benefits of updating the UWMP extend beyond legislative compliance. This document is a reference document intended to complement other UWMPs by analyzing conservation issues and the water supply available to the City of Paramount. An effective UWMP aimed at developing a greater level of water conservation, awareness, and reliability requires the coordinated efforts on key tasks by the Department of Water Resources (DWR), Central Basin Municipal Water Department (CBMWD) and its member agencies, and the Metropolitan Water District (MWD), along with the residents of the City of Paramount. This document also summarizes the current and proposed water management activities performed by the City to provide dependable, adequate and safe water. The UWMP further identifies

proposed projects with a description of resulting water costs, benefits, and implementation schedule.

Specifically, the goals of this plan are:

- To provide a local perspective on current and proposed water conservation programs,
- To review current conservation programs and efforts,
- To evaluate potential conservation methods and identify improvements, as appropriate to the City programs,
- To provide a general framework for the development of mechanisms for coping with both short-term and long-term deficiencies in regional and/or local water supplies, and
- To serve as a flexible plan that can be updated periodically to reflect changes in regional and local trends, conditions and conservation policies (at least once every five years in accordance with Section 10621 and 10644 of AB 797).

In compliance with the State mandate and accordance with the best practices of water management, the City has prepared this UWMP.

1.2 REGULATORY CHANGES

New to the 2010 "Act" are several additions, the most important of which include:

- The Water Conservation Act of 2009 (SBx7-7)
- Assembly Bill 1420

SBx7-7 established the legislative framework to achieve Governor Schwarzenegger's call for a statewide per capita water use reduction of twenty percent by the year 2020. Urban retail water suppliers are required to report in their 2010 Plans their baseline and target per capita water use reduction values and implementation strategies to assist the state in meeting this goal.

Assembly Bill 1420 conditions a water supplier's eligibility for state-funded grants on implementation of the fourteen Demand Management Measures (DMMs). For DMMs that are not currently implemented, a schedule for implementation must be submitted, including a financing plan and budget in the grant or loan agreement. Alternatively, if a DMM is not locally cost effective, documentation supporting this argument is required. The City addresses the implementation of DMMs in Section 6 of the Plan.

1.3 PLAN ORGANIZATION

The chapters in this UWMP have been organized to correspond to the outline of the California Department of Water Resources' "Guidebook to Assist Urban Water Suppliers to Prepare a 2010 Urban Water Management Plan." Additionally, the sequence used to present the information may be different from that shown in the Act in order to present the material in a manner reflecting the unique conditions within the City's service area. This UWMP is organized according to the following chapters:

1 INTRODUCTION & PLAN PREPARATION

Chapter 1 describes organization of the 2010 UWMP, background related to plan preparation, stakeholder involvement and the coordination with key stakeholders.

2 SYSTEM DESCRIPTION

Chapter 2 describes the City service area, including the climate and demographics, and also provides an overview of the water system facilities.

3 SYSTEM DEMANDS

Chapter 3 documents historical water use including use by sector, baseline and target per capita water use reduction values, demand projection calculations and the method used to develop these projections.

4 SYSTEM SUPPLIES

Chapter 4 outlines the sources of water within the City service area, including documentation regarding wholesale water, groundwater, recycled water, desalination, and transfer and exchange opportunities.

5 WATER SUPPLY RELIABILITY & WATER SHORTAGE CONTINGENCY PLANNING

Chapter 5 outlines the City's Water Shortage Contingency Plan, as well as documentation of the three dry year scenario, mandatory prohibitions, penalties or charges for excessive use, revenue and expenditure impacts, and mechanisms to determine reductions in water use.

6 DEMAND MANAGEMENT MEASURES

Chapter 6 describes the water conservation programs implemented by the City in an effort to reduce water usage in its service area.

7 CLIMATE CHANGE

Chapter 7 briefly outlines the impacts of climate change on the availability of supply, as well as City strategies to minimize emissions contributing to climate change.

1.4 COORDINATION

Urban Water Management Planning Act Requirement:

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.

The City ensured the preparation of the 2010 Urban Water Management Plan was coordinated with the appropriate water and public agencies. The County of Los Angeles, Central Basin Municipal Water District, Metropolitan Water District, and Long Beach Water Department were encouraged to participate in the plan development.

Urban Water Management Planning Act Requirement:

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.

The City sent notification letters to the following agencies approximately 60 days prior to the public hearing:

- County of Los Angeles
- Central Basin Municipal Water District
- Metropolitan Water District
- Long Beach Water Department

A copy of the letter is available in Appendix A, as well as the distribution addresses.

Urban Water Management Planning Act Requirement:

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.

The City will provide copies of its 2010 Urban Water Management Plan Update to the following agencies within 60 days of submission of the plan to the California Department of Water Resources (DWR):

- County of Los Angeles
- Central Basin Municipal Water District
- Metropolitan Water District
- Long Beach Water Department

Urban Water Management Planning Act Requirement:

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.

The City realizes the importance different social, cultural, and economic elements within its service area can have on the quality and success of its plan and water conservation efforts. The City encouraged all members of the public to attend the public hearing, and the City solicited written input from the public. Additionally, the City advertised, and provided a draft version of the plan on its website to allow public review and comment. The public was notified that the plan was available for review prior to the adoption hearing pursuant to Government Code 6066, described below.

Urban Water Management Planning Act Requirement:

10642 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, the 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.

A draft of the Urban Water Management Plan was made available on the City's website, and electronic versions of the plan were mailed upon request. A public notice including the time and place of the hearing was advertised in the local newspaper once per week for two consecutive weeks prior to the hearing, according to Government Code Section 6066. A summary of the City's coordination efforts is provided in Tables 1.4.1 and 1.4.2.

Table 1.4.1
Coordination with Appropriate Agencies

Agency	Participated in UWMP	Commented on the Draft	Attended Public Meetings
County of Los Angeles			
Central Basin Municipal Water District			
Metropolitan Water District			
Long Beach Water Department			
General Public			✓

Table 1.4.2 Coordination with Appropriate Agencies				
Agency	**Contacted for Assistance**	**Received Copy of Draft**	**Sent Notice of Intention to Adopt**	**Not Involved / No Information**
County of Los Angeles	✓	✓	✓	
Central Basin Municipal Water District	✓	✓	✓	
Metropolitan Water District	✓	✓	✓	
Long Beach Water Department	✓	✓	✓	
General Public	✓	✓	✓	

1.5 PLAN ADOPTION, SUBMITTAL, AND IMPLEMENTATION

Urban Water Management Planning Act Requirement:

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).

All amendments to the City's 2010 Urban Water Management Plan shall be adopted and filed consistent with the UWMP "Act" requirements.

Urban Water Management Planning Act Requirement:

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

The plan was adopted by the City Council on July 5, 2011 as prepared. A copy of the adoption resolution is provided in Appendix B.

Urban Water Management Planning Act Requirement:
10643 An urban water supplier shall implement its plan adopted pursuant to this chapter in accordance with the schedule set forth in its plan.

The City will implement the strategies set forth in the plan immediately upon adoption by the City Council. Details on the implementation of specific sections are detailed in their respective sections of the plan.

Urban Water Management Planning Act Requirement:
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.

The City will submit copies of its 2010 Urban Water Management Plan to the following agencies within 30 days after adoption:

- The California Department of Water Resources
- The California State Library
- Los Angeles County

Additionally, any amendments or changes to the plan will be submitted to the above agencies within 30 days after adoption.

Urban Water Management Planning Act Requirement:
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.

The City will provide an electronic version of the final 2010 Urban Water Management Plan on its website for public review within 30 days of filing the plan with the California Department of Water Resources. Additionally, a hard copy will be available for review at City Hall, located at 16400 Colorado Ave., Paramount, CA 90723.

2 SYSTEM DESCRIPTION

2.1 SERVICE AREA PHYSICAL DESCRIPTION

Urban Water Management Planning Act Requirement:

10631(a) Describe the service area of the supplier.

General Location Overview

The City of Paramount (City) is located in the southeastern portion of Los Angeles County, between the Los Angeles and San Gabriel Rivers. It is 12 miles north of the Ports of Los Angeles and Long Beach and 15 miles south of downtown Los Angeles. It occupies an area of approximately 4.8 square miles (2,800 acres). The predominant land use in the City is residential, with land also dedicated to commercial, industrial, municipal, parks and recreation, school, and hospital uses. Figure 2.1.1 shows the City of Paramount in a regional context.

Water System Overview

The City of Paramount has three water sources: groundwater, imported water (surface), and recycled water. The City also has emergency mutual-aid domestic water connections with the City of Long Beach, the City of Downey, and Golden State Water Company. Currently, two water utilities serve the community. The City's water department services the majority of Paramount. Two northern portions of the City, above the I-105 Freeway, are serviced by Southern California Water Company. The City boundaries, as shown in Figure 2.1.2 provides an estimate of the service area of the City of Paramount.

The City of Paramount provides potable water service to its residential, commercial, industrial, and institutional customers within the City limits. The City's current water system that includes two wells; two imported water connections; approximately 130 miles of water transmission and distribution mains; and appurtenant valves, hydrants, and equipment. Currently the City does not have any storage reservoirs, although the groundwater basin acts as ground storage for the City.

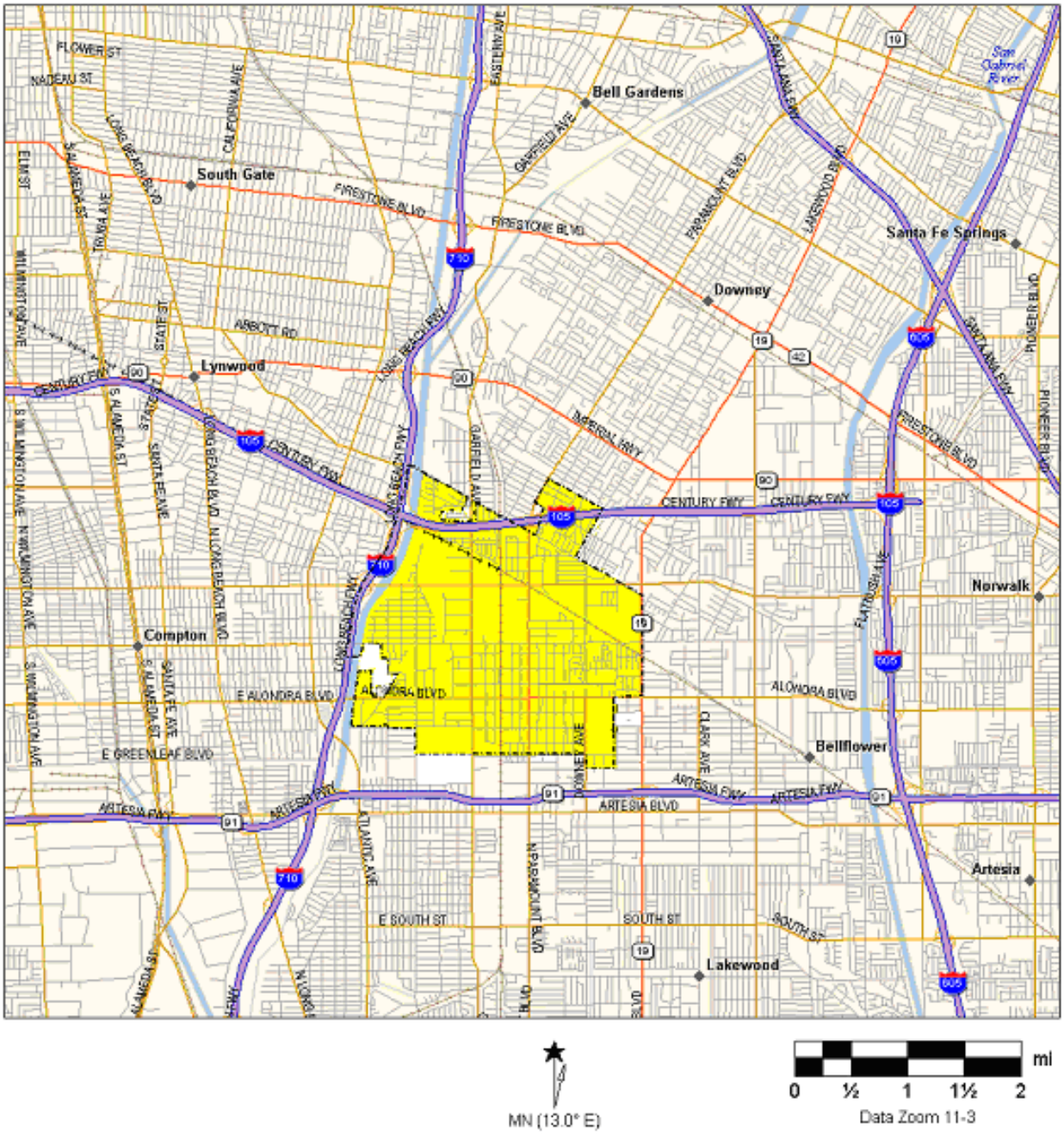
The City overlies the Central Groundwater Basin (Central Basin). Upon the Central Basin's adjudication in 1965, the City was allocated an annual pumping right, which currently stands at

5,883 acre-feet per year plus 20% carryover rights. Well No. 13 and Well No. 14 are the City's two existing groundwater wells. Table 2.1.1 provides a description of the City wells.

Table 2.1.1
Well Operating Capacities

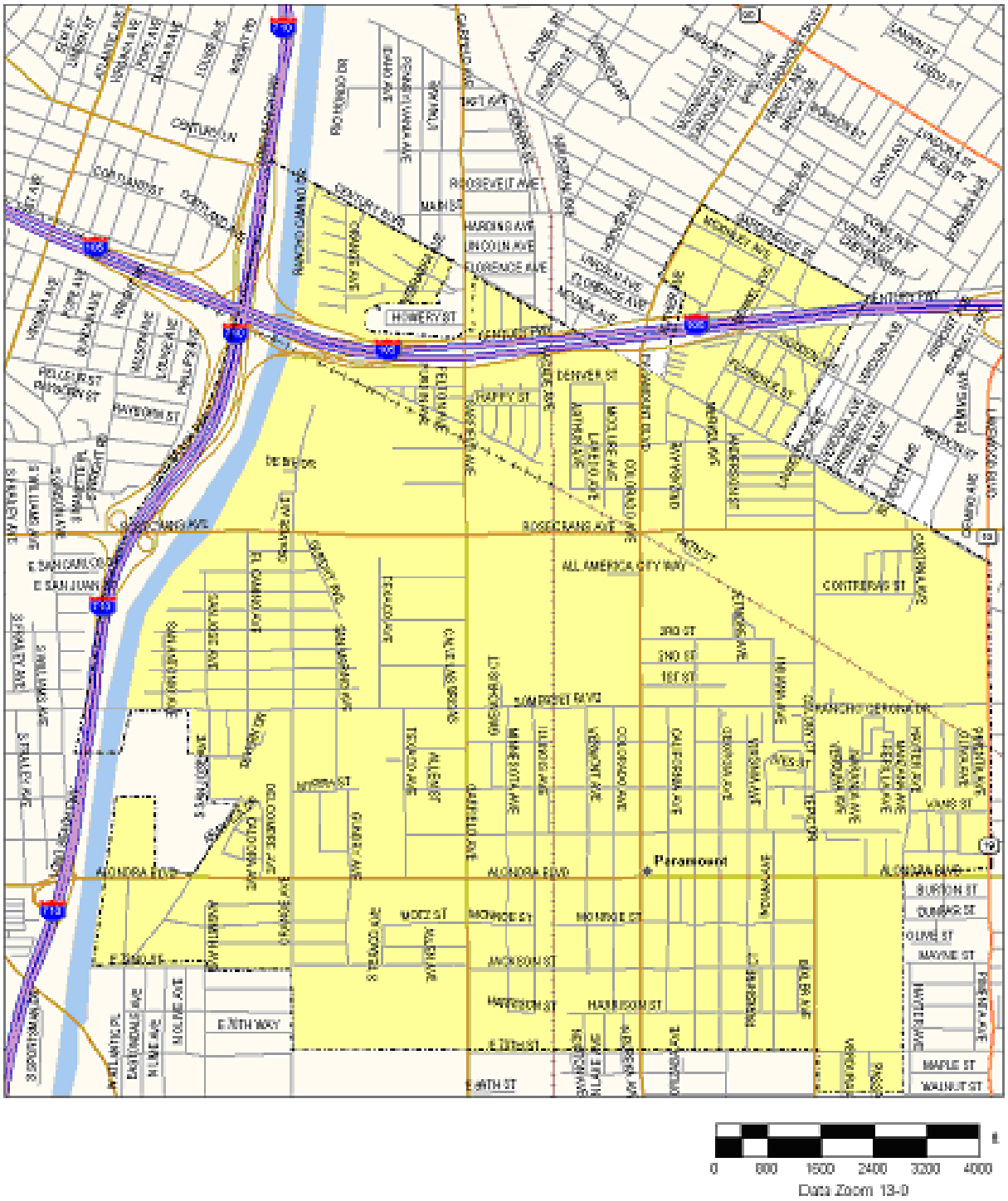
Basin Name	Gallons Per Day
City of Paramount Well 13	3,600,000
City of Paramount Well 14	4,032,000
Total	**7,632,000**

Figure 2.1.1 – The City of Paramount Regional Location[1]



[1]Not to Scale

Figure 2.1.2 – The City of Paramount Corporate Boundaries/Service Area[1]



[1]Not to Scale

2.2 SERVICE AREA CLIMATE

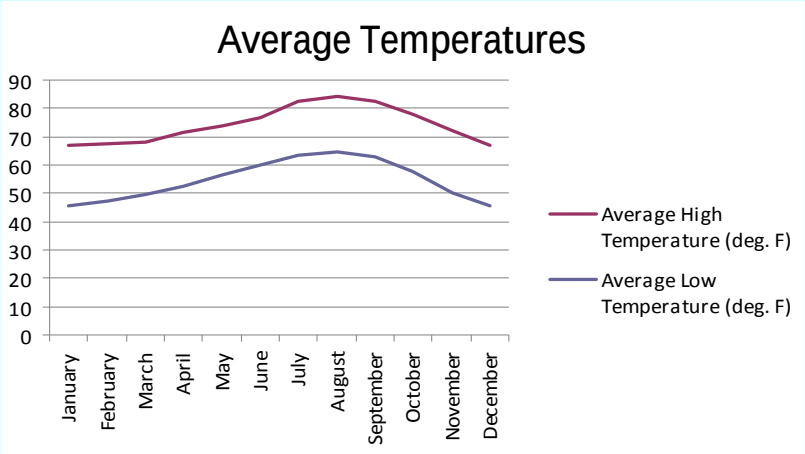
Urban Water Management Planning Act Requirement:

10631(a) Describe the service area – climate.

Temperature

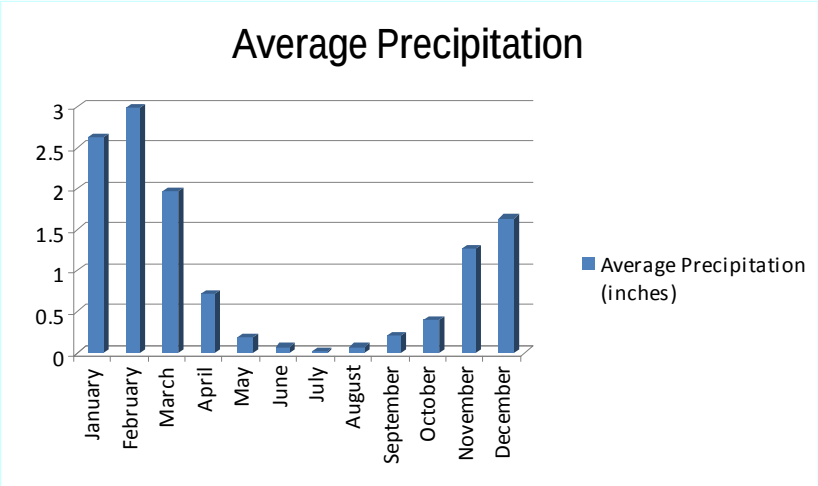
The City of Paramount's semi-arid climate is temperate year-round, with mild and dry summers and wet cool winters. The temperature range is generally moderate as depicted in Figure 2.2.1; the average high temperature is 74 °F and the average minimum annual temperature is 54 °F.

Figure 2.2.1 – Average Temperatures



Precipitation

Figure 2.2.2 – Average Precipitation



The City's annual average precipitation is approximately 12 inches. The average annual monthly precipitation in the City of Paramount is presented in Figure 2.2.2.

Additionally, seasonal variation in temperature, rainfall, and evapotranspiration rate are illustrated in Table 2.2.1.

Table 2.2.1
Climate Data[1] (Period Record: 4/1/1958 – 12/31/2005)

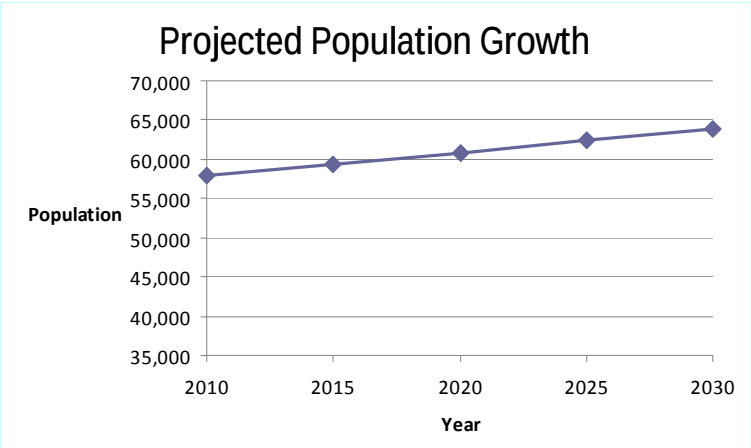
	Avg. High Temp. (F)	Avg. Low Temp. (F)	Avg. Precipitation	Avg. (ETo)[2]
January	66.9	45.6	2.63	1.65
February	67.3	47.3	2.99	2.15
March	68.2	49.7	1.96	3.59
April	71.8	52.3	0.72	4.77
May	73.6	56.8	0.19	5.12
June	77.0	60.2	0.07	5.71
July	82.4	63.6	0.02	5.93
August	84.0	64.9	0.07	5.91
September	82.3	62.9	0.20	4.39
October	78.0	57.9	0.40	3.22
November	72.1	50.4	1.26	2.18
December	67.2	45.3	1.64	1.68

Source: (1) Western Regional Climate Center: http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?calong
(2) CIMIS : http://wwwcimis.water.ca.gov – Long Beach Station

2.3 SERVICE AREA POPULATION

Urban Water Management Planning Act Requirement:
10631(a) Describe the service area – current and projected population … 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 …(population projections) shall be in five-year increments to 20 years or as far as data is available.

Figure 2.3.1 – Projected Population Growth



The area was first founded in 1886 when the California Cooperative Colony Tract Company subdivided the land and sold off tracts in what was then known as the town of Clearwater, named after the adjacent lake. This area was then used for farming and dairy uses, the latter of which was spurned on by the influx of dairymen from the

Netherlands and Portugal in the 1920s. During this time, water was obtained through various sources, which included the Los Angeles River, Clearwater Lake, and through groundwater.

By the late 1920s, the Signal Hill oil boom brought on the development of several refineries in the area and several subsequent housing tracts, causing the City to triple in size within five years. In addition, the construction of the Los Angeles Terminal Railroad through the City and heavy industries, which are located adjacent to it, continued on the urbanization of the City. The City has approximately 14,600 dwelling units and there is an average of 4 persons per household.

The City was incorporated in 1957 and population growth increased at a high annual rate of 2.46% between 1960 and 1970 but tailed off to 0.47% between 1970 and 1980. The population took off between 1980 and 2005 growing 60% during this 25-year period as a result of City development. The population in the City of Paramount is expected to increase slightly through 2030. The reason behind this is that opportunities for development are limited as the City has become almost completely built out. Table 2.3.1 show the current and projected population growth.

Table 2.3.1
Population — Current and Projected

	2010	2015	2020	2025	2030	Data source
Service Area Population[1]	57,989	59,400	60,846	62,327	63,844	California DOF E-4 Estimates

[1] Service area population is defined as the population served by the distribution system. See Technical Methodology 2: Service Area Population (2010 UWMP Guidebook, Section M).

2.4 OTHER DEMOGRAPHIC FACTORS

Urban Water Management Planning Act Requirement:
10631(a) Describe the service area – other demographic factors affecting the supplier's water management planning

With decreased new development and increased City water conservation in the past 10 years, the City domestic water demand has been fairly flat while averaging approximately 6.5 million

gallons per day. City water demand is estimated to increase slightly in the future as a result of the projected increase in population. City water demand also fluctuates as a result of climatic variations. For example, between 1996/97 and 2004/05, City water demand increased 7.0% in 1997/98 when rainfall was high (29.7 inches) and decreased 5.0% in 2003/04 when rainfall was low (7.5 inches).

3 SYSTEM DEMANDS

3.1 WATER CONSERVATION BILL OF 2009 - BASELINES AND TARGETS

Urban Water Management Planning Act Requirement:

10608.20(e) An urban retail water supplier shall include in its urban water management plan … 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.

In order to improve the Sacramento-San Joaquin Delta, in 2008 Governor Schwarzenegger directed State water agencies to develop a plan to achieve a twenty percent per capita water use reduction by the year 2020. The Water Conservation Act of 2009 (Senate Bill x7-7), passed in November 2009, provides the legislative framework to implement the conservation goals, and requires retail water suppliers to detail their strategy for achieving the reduction requirement in their 2010 Urban Water Management Plan Updates. The Urban Water Management Planning Act and SBx7-7 can be found in Appendices C and D of this document, respectively.

Explicit methodologies were developed by the California Department of Water Resources (DWR) to assist retail water suppliers in complying with the Water Conservation Act of 2009, and they are detailed in the technical document, "Methodologies for Calculating Baseline and Compliance Urban Per Capita Water Use." The City of Paramount utilized the DWR methods when determining its baseline, interim, and water use target values, the steps of which are described in detail in the following sections.

The methodologies laid out by DWR instruct urban water suppliers to determine their baseline and target water use values through performing four main steps, which are as follows:

- Step 1: Determine Base Daily Per Capita Water Use
- Step 2: Determine Urban Water Use Target
- Step 3: Compare Urban Water Use Target to the 5-year Baseline (verification of 95% minimum reduction requirement)

- Step 4: Determine Interim Urban Water Use Target

Water suppliers are given the option of determining their 20x2020 target values either individually, or through a regional alliance. The City of Paramount is part of the Los Angeles Gateway Region that has formed a regional alliance, and has thus determined its baseline and target values both individually and as part of the alliance.

3.1.1 Step 1: Determine Base Daily Per Capita Water Use

Baseline daily per capita water use is defined as an urban water supplier's estimate of its average gross water use, reported in gallons per capita per day (GPCD) and calculated over a continuous base period.

Steps 1A – 1C: Determine Supplier 10- to 15-year, and 5-year Base Periods

Urban retail water suppliers are required to choose a continuous, 10-year baseline period ending no earlier than December 31, 2004 and no later than December 31, 2010 when determining Base Daily Per Capita Water Use. The option to extend the baseline to a 15-year period is given to water suppliers if recycled water accounts for at least 10 percent of their 2008 retail water deliveries. The City of Paramount's recycled water deliveries were approximately five percent of its 2008 total, and therefore a 10-year baseline period was chosen; July 1st, 2000 through June 30th, 2010.

The 5-year baseline period is used to determine the retail water supplier's minimum water use reduction, and the period must end no earlier than December 31st, 2007 and no later than December 31st, 2010. July 1st, 2003 through June 30th, 2008 was chosen as the 5-year baseline period for the City of Paramount. Table 3.1.1 summarizes the City of Paramount's baseline period selections.

Table 3.1.1 Base Period Ranges			
Base	**Parameter**	**Value**	**Units**
10- to 15-year base period	2008 total water deliveries	7,501	*acre-ft*
	2008 total volume of delivered recycled water	394.5	*acre-ft*
	2008 recycled water as a percent of total deliveries	5.26%	percent
	Number of years in base period	10	years
	Fiscal Year beginning base period range	2001	
	Fiscal Year ending base period range	2010	
5-year base period	Number of years in base period	5	years
	Fiscal Year beginning base period range	2004	
	Fiscal Year ending base period range	2008	

Units: acre-feet per year

Steps 1D – 1E: Estimate Service Area Population

The City of Paramount Water Department's service area encompasses more than 95% of the City's limits. Therefore, the California Department of Finance (DOF) E-4 Population Estimates for the City of Paramount were used to estimate the service area's total population for the baseline years (2001 – 2010).

Step 1F: Calculate Gross Water Use

The City of Paramount receives potable water from two sources; imported water, purchased through the Central Basin Municipal Water District (CBMWD), and groundwater, extracted via a series of wells. Recycled water is used exclusively for irrigation and industrial purposes, and was therefore excluded from the gross water use calculations. Total annual volumes (reported for each fiscal year) of groundwater and imported water entering the City's distribution system were obtained from the Central Basin's Watermaster Service Reports. A summary of the calculations, highlighting the steps described in DWR's guidance document, is shown in Table 3.1.2.

Table 3.1.2											
Gross Water Use Calculations											
Utility Name: City of Paramount		12-month period from: 1-Jul to 30-Jun					Volume Units: Million Gallons				
		Year 1	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**	**Year 7**	**Year 8**	**Year 9**	**Year 10**
1	Volume from Own Sources (raw data)	1458	1465	1056	1798	1379	1670	1000	1362	1607	1366
2	Volume from Imported Sources (raw data)	887	933	1409	736	819	791	1434	1082	758	820
3	***Total Volume Into Distribution System = Line 1 + Line 2***	***2346***	***2398***	***2464***	***2534***	***2198***	***2461***	***2434***	***2444***	***2365***	***2187***
4	Volume Exported to Other Utilities (raw data)	-	-	-	-	-	-	-	-	-	-
5	Change in Distribution System Storage (+/-)	-	-	-	-	-	-	-	-	-	-
6	***Gross Water Use Before Indirect Recycled Water Use Deductions = Line 3 - Line 4 - Line 5***	***2346***	***2398***	***2464***	***2534***	***2198***	***2461***	***2434***	***2444***	***2365***	***2187***
7	Indirect Recycled Water Use Deduction	-	-	-	-	-	-	-	-	-	-
8	***Gross Water Use After Indirect Recycled Water Use Deductions = Line 6 - Line 7***	***2346***	***2398***	***2464***	***2534***	***2198***	***2461***	***2434***	***2444***	***2365***	***2187***
9	*Water Delivered for Agricultural Use (optional deduction)*	-	-	-	-	-	-	-	-	-	-
10	*Process Water Use (optional deduction)*	-	-	-	-	-	-	-	-	-	-
11	**Gross Water Use After Optional Deductions**	**2346**	**2398**	**2464**	**2534**	**2198**	**2461**	**2434**	**2444**	**2365**	**2187**

Steps 1G – 1I: Determine Annual and Base Daily Per Capita Water Use

Annual daily per capita water use for the City of Paramount was estimated by dividing the gross water use by the service area's total population for each year of the baseline period. The average of these values over the 10-year baseline was then determined, giving the Base Daily Per Capita Water Use for the City of Paramount; **114 GPCD**.

Table 3.1.3 summarizes the data used to determine the City's Base Daily Per Capita Water Use.

Table 3.1.3
Base Daily Per Capita Water Use — 10-Year Range

Base period year		Distribution System Population	Daily System Gross Water Use (MGD)	Annual Daily Per Capita Water Use (GPCD)
Sequence Year	Fiscal Year Ending			
Year 1	2001	55,929	6.43	115
Year 2	2002	56,663	6.57	116
Year 3	2003	57,210	6.75	118
Year 4	2004	57,577	6.94	121
Year 5	2005	57,723	6.02	104
Year 6	2006	57,626	6.74	117
Year 7	2007	57,601	6.67	116
Year 8	2008	57,638	6.70	116
Year 9	2009	57,874	6.48	112
Year 10	2010	57,989	5.99	103
Base Daily Per Capita Water Use				114

3.1.2 Determine Urban Water Use Target

The Water Conservation Act of 2009 provides the retail water supplier the choice of four methods for determining the urban water use target value. The four methods are:

- Method 1: 80% of Base Daily Per Capita Water Use Value
- Method 2: Performance Standards
- Method 3: 95% of the Hydrologic Region 2020 Target Value
- Method 4: Water Savings (developed by DWR)

The City of Paramount decided upon Method 3 for determining its water use reduction target, as

it provides a goal that is most appropriate for the City's future plans. Paramount is located in the South Coast hydrologic region, which was assigned a 149 GPCD water use target. Ninety five percent of the region's target, or **142 GPCD**, was therefore chosen as the City of Paramount's Urban Water Use Target.

3.1.3 Confirm Urban Water Use Target

The Water Conservation Act of 2009 sets a minimum reduction requirement the water supplier's urban water use target must meet or exceed. The minimum reduction is defined as 95 percent of the 5-year baseline period's Base Daily Per Capita Water Use. Table 3.1.4 provides a summary of the 5-year baseline calculations.

Table 3.1.4
Base Daily Per Capita Water Use — 5-Year Range

Base period year		Distribution System Population	Daily system gross water use (mgd)	Annual daily per capita water use (gpcd)
Sequence Year	Fiscal Year Ending			
Year 1	2004	57,577	6.94	121
Year 2	2005	57,723	6.02	104
Year 3	2006	57,626	6.74	117
Year 4	2007	57,601	6.67	116
Year 5	2008	57,638	6.70	116
Base Daily Per Capita Water Use				115

The urban water use target of 142 GPCD calculated by Method 3 does not meet the minimum reduction requirement of **109 GPCD** (95% of the 5-year Base Daily Per Capita Water Use), and it was therefore replaced by the minimum reduction water use value as the City's Urban Water Use Target. The City's final Urban Water Use Target Value is **109 GPCD**.

3.1.4 Determine Interim Urban Water Use Target

The interim urban water use target is defined as the water use goal the water supplier is to achieve and report in the 2015 UWMP Update, and equals half of the target 2020 reduction. The interim urban water use target for the City of Paramount is **112 GPCD**.

3.1.5 Regional Alliance Calculations

The City of Paramount is part of the Los Angeles Gateway Region Integrated Water Management Authority that has formed a 20x2020 regional alliance to meet water conservation requirements. Additional members of the alliance include the Bellflower-Somerset Mutual Water Company; Bell Gardens, Cerritos, Downey, Huntington Park, Lakewood, Long Beach, Lynwood, Norwalk, Paramount, Pico Rivera, Pico Water District, Santa Fe Springs, Signal Hill, South Gate, Vernon, and Whittier.

The "Gateway Regional Water Conservation Alliance Report" is located in Appendix C of this report and includes all calculations performed on a regional basis. Based upon these calculations the regional interim target in 2015 is **108.2 GPCD** and the target for 2020 compliance is **103.1 GPCD**.

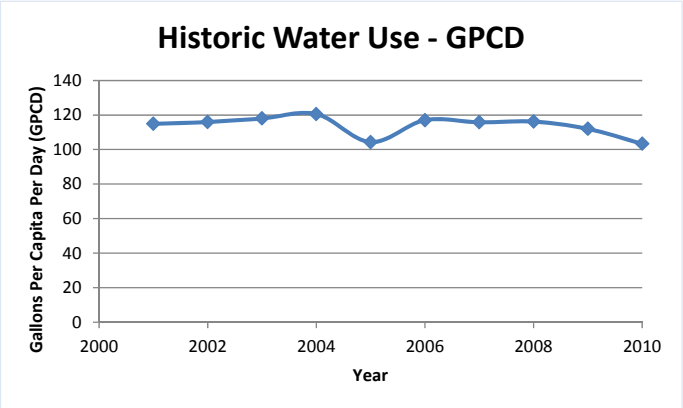
3.2 WATER DEMANDS

Urban Water Management Planning Act Requirement:

10608.20(e)(1)&(2) Quantify, to the extent records are available, past and current water use, and projected water use (over the same five-year increments described in subdivision (a)), 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.

3.2.1 Historic Water Use

Figure 3.2.1 – Historic Water Use



The City of Paramount's Water System currently serves approximately 58,000 people within its service area. With the City being almost completely built-out, significant growth or increase in water demands are not anticipated in future years.

Key factors that affect water demands are; population growth, increases in land use development, industrial growth and reductions in annual rainfall. For the City of Paramount, population and rainfall exhibit the greatest influence. Usage of water per capita day has remained relatively stable throughout the past ten years, as shown in Figure 3.2.1. Consumption has ranged from a low 103 GPCD in 2010 to a maximum of 121 GPCD in 2004. The average use per day during the period from 2001 through 2010 was 114 gallons per person.

Table 3.2.1 Historic Water Use			
Fiscal Year	**Gross Water Use (MGY)**	**Population**	**Usage Per Capita Day (GPCD)**
2001	2,346	55,929	115
2002	2,398	56,663	116
2003	2,464	57,210	118
2004	2,534	57,577	121
2005	2,198	57,723	104
2006	2,461	57,626	117
2007	2,434	57,601	116
2008	2,444	57,638	116
2009	2,365	57,874	112
2010	2,187	57,989	103

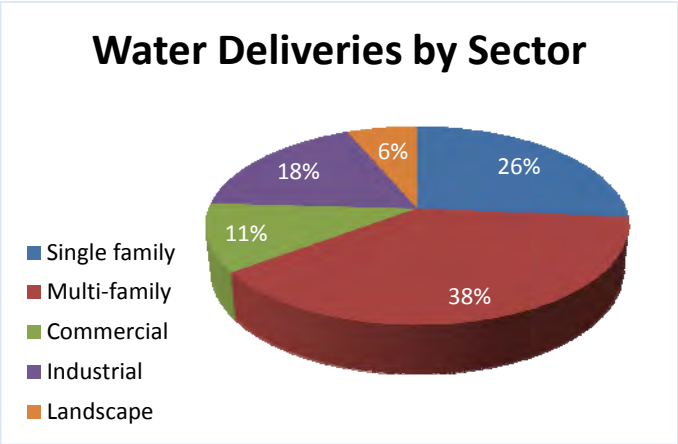
The City of Paramount's past water use and number of customer connections for the 2005 calendar year are shown in Table 3.2.2, separated by water use sector.

Table 3.2.2 Water Deliveries — Actual, 2005					
	2005				
	Metered		**Not Metered**		**Total**
Water Use Sectors	**# of Accounts**	**Volume**	**# of Accounts**	**Volume**	**Volume**
Single family	4,602	2,089	0	0	2,089
Multi-family	1,664	2,933	0	0	2,933
Commercial	504	827	0	0	827
Industrial	596	1,267	0	0	1,267
Institutional/governmental	0	0	0	0	0
Landscape	502	519	0	0	519
Agriculture	0	0	0	0	0
Other	0	0	0	0	0
Total	7,868	7,635	0	0	7,635

Units: acre-feet per year

3.2.2 Current and Projected Water Use by Sector

Figure 3.2.2 –Water Deliveries



In 2010, the City used 6,177 acre-feet of water, as measured by metered sales and reported in the City's Public Water System Statistics (PWSS) annual filings. Average water deliveries, shown in Figure 3.2.2, are broken down into the following sectors:

- Single Family Residential
- Multi-Family Residential
- Commercial
- Industrial
- Landscape

The number of connections and water use are projected for the next 20 years, in five year increments, and are broken down by sector. The future estimations of water use and connections (by sector) are extrapolated based on the current (2010) values, anticipated population growth, and the Interim (2015) and Final (2020) Target Water Use Reduction Goals.

Residential Sector

As Tables 3.2.3 – 3.2.6 indicate, the majority of the water demand in the community will continue to be in the residential sector. Due to the lack of available space, the City of Paramount does not have plans for new residential development in the near future. In the next 20 years, some form of residential redevelopment may occur; however, such development is not expected to place a heavy demand on the City's water supply. Additionally, reclaimed water use is not expected to expand to the residential sector during the planning period.

Commercial Sector

Commercial water demand has remained fairly stable over the past few years. Since 2005, commercial development requires developers to estimate water use for landscape irrigation. Water Conservation in Landscaping Ordinance No. 825 of the Paramount Municipal Code requires that contractors complete a water use audit, which includes the designation of low water use plants and water conserving sprinklers. If the development is located within 150 feet of a public reclaimed water distribution system, the contractor will be required to connect to it for landscape irrigation. Current and projected water demands for the City's commercial sector are shown in Tables 3.2.3 – 3.2.6.

Industrial Sector

Industrial water demand has also remained fairly stable over the past few years. Similar to residential development, no new form of large industrial development is anticipated in the near future that will increase industrial water demand. However, should a large form of industrial redevelopment occur, it would likely occur in the City's "industrial belt" located on and around Garfield Avenue. Fortunately, this "industrial belt" is parallel to CBMWD's reclaimed water distribution line in the City. The City would encourage any new form of industrial development to connect to this reclaimed line, thereby relieving any large demand on the City's potable water supply. Additionally, opportunities to connect existing industrial customers, such as the Paramount Refinery, to the reclaimed water line are available, and may reduce the potable water demand of the sector during the planning horizon of the UWMP.

Institutional / Governmental Sector

The City of Paramount does not have any institutional / governmental connections.

Landscape Sector

The current and projected water demands for landscape irrigation are shown in Tables 3.2.3 – 3.2.6. Consistent with the Water Conservation in Landscaping Ordinance No. 825 discussed in the Commercial Sector above, current landscaping water demand has fallen below past (2005) levels. Additionally, the CBMWD has expressed interest to the City in expanding the recycled water system to connect other landscape and industrial customers.

Agricultural Sector

The City of Paramount does not provide potable water for agricultural uses. However, there are currently four customers receiving recycled water for agricultural purposes.

Table 3.2.3 Water Deliveries — Actual, 2010					
	2010				
	Metered		Not metered		Total
Water use sectors	# of accounts	Volume	# of accounts	Volume	Volume
Single family	4,386	1,631	0	0	1,631
Multi-family	1,629	2,372	0	0	2,372
Commercial	525	680	0	0	680
Industrial	545	1,101	0	0	1,101
Institutional/governmental	0	0	0	0	0
Landscape	238	393	0	0	393
Agriculture	0	0	0	0	0
Other	0	0	0	0	0
Total	7,323	6,177	0	0	6,177

Units: acre-feet per year

Table 3.2.4 Water Deliveries — Projected, 2015					
	2015				
	Metered		Not metered		Total
Water use sectors	# of accounts	Volume	# of accounts	Volume	Volume
Single family	4,493	1,921	0	0	1,921
Multi-family	1,669	2,794	0	0	2,794
Commercial	538	802	0	0	802
Industrial	558	1,297	0	0	1,297
Institutional/governmental	0	0	0	0	0
Landscape	244	463	0	0	463
Agriculture	0	0	0	0	0
Other	0	0	0	0	0
Total	7,501	7,277	0	0	7,277

Units: acre-feet per year

Table 3.2.5 Water Deliveries — Projected, 2020					
	2020				
	Metered		Not metered		Total
Water use sectors	# of accounts	Volume	# of accounts	Volume	Volume
Single family	4,602	1,915	0	0	1,915
Multi-family	1,709	2,786	0	0	2,786
Commercial	551	799	0	0	799
Industrial	572	1,293	0	0	1,293
Institutional/governmental	0	0	0	0	0
Landscape	250	461	0	0	461
Agriculture	0	0	0	0	0
Other	0	0	0	0	0
Total	7,684	7,254	0	0	7,254

Units: acre-feet per year

Table 3.2.6 Water Deliveries — Projected 2025 and 2030				
	2025		2030	
	metered		metered	
Water use sectors	# of accounts	Volume	# of accounts	Volume
Single family	4,714	1,962	4,829	2,010
Multi-family	1,751	2,853	1,793	2,923
Commercial	564	819	578	838
Industrial	586	1,325	600	1,357
Institutional/governmental	0	0	0	0
Landscape	256	473	262	484
Agriculture	0	0	0	0
Other	0	0	0	0
Total	7,871	7,431	8,062	7,612

Units: acre-feet per year

3.2.3. Sales to Outside Agencies

The City of Paramount does not sell wholesale water to other agencies. Table 3.2.7 is provided to quantify that Paramount does not intend to sell water to other water agencies within the planning period.

Table 3.2.7
Sales to Other Water Agencies

Water Distributed	2005	2010	2015	2020	2025	2030
Not Applicable	0	0	0	0	0	0
Total	0	0	0	0	0	0

Units: acre-feet per year

3.2.4. Other Water Uses and Losses

Recycled water is delivered to the City by CBMWD through the Los Angeles County Sanitation District's Los Coyotes Reclamation Plant and is currently used for irrigation and industrial uses. The demand on the recycled water system is largely dependent on the development of the system by CBMWD. CBMWD has expressed interest in expanding the system to connect other landscape and industrial customers, and total deliveries of recycled water are expected to increase modestly throughout the planning period, shown in Table 3.2.8.

Systems losses were estimated by subtracting the total metered deliveries for the year from the total water volume into the system (well production and imported water). The remainder was considered water losses and/or other, unaccounted-for water uses. Over the years 2005 – 2010, water losses averaged 2.2%. Projected system losses were estimated based on this average throughout the planning period. The system losses are summarized in Table 3.2.8.

Table 3.2.8
Additional Water Uses and Losses

Water Use	2005	2010	2015	2020	2025	2030
Saline barriers	N/A					
Groundwater recharge	N/A					
Conjunctive use	N/A					
Raw water	N/A					
Recycled water	360	354	363	371	380	390
System losses	150	149	175	175	179	183
Other (define)	N/A					
Total	510	503	538	546	559	573

Units: acre-feet per year

3.2.5 Total Water Demands

The total past, current, and future water demands for the City of Paramount are summarized in Table 3.2.9.

Table 3.2.9
Total Water Use

Water Use	2005	2010	2015	2020	2025	2030
Total water deliveries (Tables 3.2.2 to 3.2.6)	7,635	6,177	7,277	7,254	7,431	7,612
Sales to other water agencies (Table 3.2.7)	N/A	N/A	N/A	N/A	N/A	N/A
Additional water uses and losses (Table 3.2.8)	510	503	538	546	559	573
Total	7,896	6,680	7,815	7,800	7,990	8,185

Units: acre-feet per year

3.2.6 Lower Income Housing Projections

Urban Water Management Planning Act Requirement:
10631.1(a) The water use projections required by Section 10631 shall include projected water use for single-family and multi-family 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.

Table 3.2.10 summarizes the lower income water use projections for the City of Paramount, and the lower income water demands are also included as part of the total residential water demand estimates and projections in Tables 3.2.3 – 3.2.6. The Housing Element of the City of Paramount's General Plan was used to obtain the lower income housing data, and estimates through 2014 were provided. Demand projections beyond 2014 were estimated based on 2014 values and overall population growth to determine lower income housing needs throughout the entire UWMP planning horizon.

Table 3.2.10 Low-Income Projected Water Demands				
Low Income Water Demands	**2015**	**2020**	**2025**	**2030**
Single-family residential	11	16	22	5
Multi-family residential	4	6	8	2
Total	15	22	30	7

Units: acre-feet per year

3.3 WATER DEMAND PROJECTIONS

Urban Water Management Planning Act Requirement:

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 the 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).

The City of Paramount relies on wholesale water from the Central Basin Municipal Water District as one of the primary sources of water. Table 3.3.1 is provided to quantify the district demand projections provided to CBMWD for incorporation into the CBMWD's Urban Water Management Plan.

Table 3.3.1 Retail Agency Demand Projections Provided to Wholesale Suppliers					
Wholesaler	**2010**	**2015**	**2020**	**2025**	**2030**
CBMWD	2,518	3,018	3,009	3,082	3,157
Total	2,518	3,018	3,009	3,082	3,157

Units: acre-feet per year

3.4 WATER USE REDUCTION PLAN

Urban Water Management Planning Act Requirement:

CWC §10608.29 Urban wholesale water suppliers shall include in the urban water management plans … an assessment of their present and proposed future measures, programs, and policies to help achieve the water use reductions required by this part (10608.36). Urban retail water suppliers are to prepare a plan for implementing the Water Conservation bill of 2009 requirements and conduct a public meeting which includes consideration of economic impacts.

The City of Paramount has implemented an economical, yet sound, water use reduction plan in order to meet the 20x2020 water use reduction requirements. Options to reduce water demand in the City include:

- Working with CBMWD to expand offerings of recycled water for irrigation purposes and to existing industrial customers, such as the Paramount Refinery.
- Increasing public awareness regarding water conservation requirements and efforts that can be easily implemented to conserve water.
- Complying with the 14 Demand Management Measures for water conservation.

4 SYSTEM SUPPLIES

4.1 WATER SOURCES

Urban Water Management Planning Act Requirement:

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).

The City of Paramount utilizes both potable and recycled water. The City obtains potable water from two sources: directly pumped groundwater and purchased through the Central Basin Municipal Water District (CBMWD), who in turn receives the water through the Metropolitan Water District of Southern California (MWD). In addition to distributing potable water, the City of Paramount also has a recycled water system that provided 354 AF of recycled water in 2010. The City provided a total of 6,177 AF of water to a population of approximately 58,000 in 2010. Due to the slow rising population and the per capita demand reduction required by SBx7-7, projected water supplies increase by only 3.5% from 2015 to 2030. Although this is a small increase, this supply is expected to meet the water demand in 2030. More information comparing the projected water supply and demand can be found in Chapter 5.

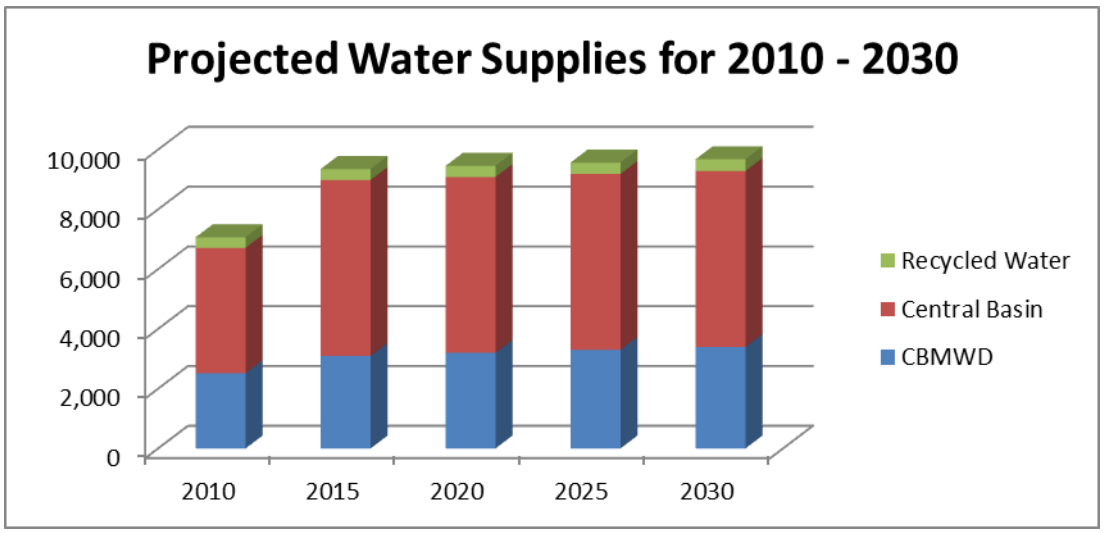
The City of Paramount obtains its groundwater from the Central Subbasin, one of four subbasins in the Coastal Plain of Los Angeles. The Central Subbasin is commonly referred to as the Central Basin, and is identified as such through the remainder of the report. The Central Basin is an adjudicated Basin. For the supply section, it is assumed that the City of Paramount pumps the total allotted amount of groundwater from the Central Basin: 5,883 AF. This is accurate, considering the construction of the new well, described in Section 4.6. More information on the adjudication of the Central Basin can be found in Section 4.2, which discusses the groundwater sources for the City of Paramount.

The total projected supplies available to the city through CBMWD, pumped groundwater, and recycled water are shown in Table 4.1.1. The supply sources are also illustrated in Figure 4.1.1.

Table 4.1.1 Water Supplies — Current and Projected					
Water Supply Sources	**2010**	**2015**	**2020**	**2025**	**2030**
Central Basin Municipal Water District	2,518	3,100	3,200	3,300	3,400
Supplier-Produced Groundwater – Central Basin	4,194	5,883	5,883	5,883	5,883
Supplier-Produced Surface Water	0	0	0	0	0
Transfers In	0	0	0	0	0
Exchanges In	0	0	0	0	0
Recycled Water	354	363	371	380	390
Desalinated Water	0	0	0	0	0
Total	7,066	9,346	9,454	9,563	9,673

Units: acre-feet per year

Figure 4.1.1: Projected Water Supplies for the City of Paramount for 2010 through 2030



Groundwater Supply

The City of Paramount utilizes groundwater from the adjudicated Central Basin. The groundwater supply to the City of Paramount is discussed in Section 4.2.

Wholesale Water Supply

Water for use in the City of Paramount is purchased through the CBMWD. CBMWD obtains its water from a number of sources, including local groundwater supplies and recycled water.

However, the majority of water supplied to CBMWD is from MWD as part of the State Water Project (SWP). The SWP is a series of reservoirs, aqueducts, and pumping facilities that convey water from Northern to Southern California. The water for use within the City of Paramount is collected and delivered to MWD via the SWP, which is subsequently treated at either the Weymouth Filtration Plant or the Jensen Filtration Plant. Water from either of these filtration plants is then transferred to CBMWD. In 2010, MWD delivered approximately 53,000 AF of water to CBMWD, of which 2,518 was sold to the City of Paramount for distribution.

The City of Paramount has provided the following estimates for water supplies in order to meet demands. The Central Basin Municipal Water District's 2010 Urban Water Management Planned confirmed that the supplies shown in Table 4.1.1 will be available for use by the City of Paramount.

Table 4.1.1
Wholesale Supplies — Existing and Planned Sources of Water

Wholesale Sources	Contracted Volume	2015	2020	2025	2030
Central Basin Municipal Water District	Yes	3,100	3,200	3,300	3,400

Units: acre-feet per year

Recycled Water Supply

The City of Paramount provides recycled water for irrigation throughout the service area. The City of Paramount's Recycled Water system is discussed in detail in Section 4.5.

4.2 GROUNDWATER

Urban Water Management Planning Act Requirement:
10631 (b) (Is) groundwater…identified as an existing or planned source of water available to the supplier?

The City of Paramount utilizes groundwater pumped from the Central Basin. There are currently no plans to discontinue pumping water from the Central Basin for potable use.

Urban Water Management Planning Act Requirement:

10631 (b)(1) If groundwater is identified as an existing or planned course of water available to the supplier provide…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.

The Central Basin was adjudicated in 1965, and the Department of Water Resources (DWR) was appointed Watermaster. Every month extractions are reported to the Watermaster by each individual pumper. This allows the Watermaster to regulate the water rights of the Subbasin. The Central Basin does not have a groundwater management plan because it is adjudicated and the DWR manages groundwater extractions.

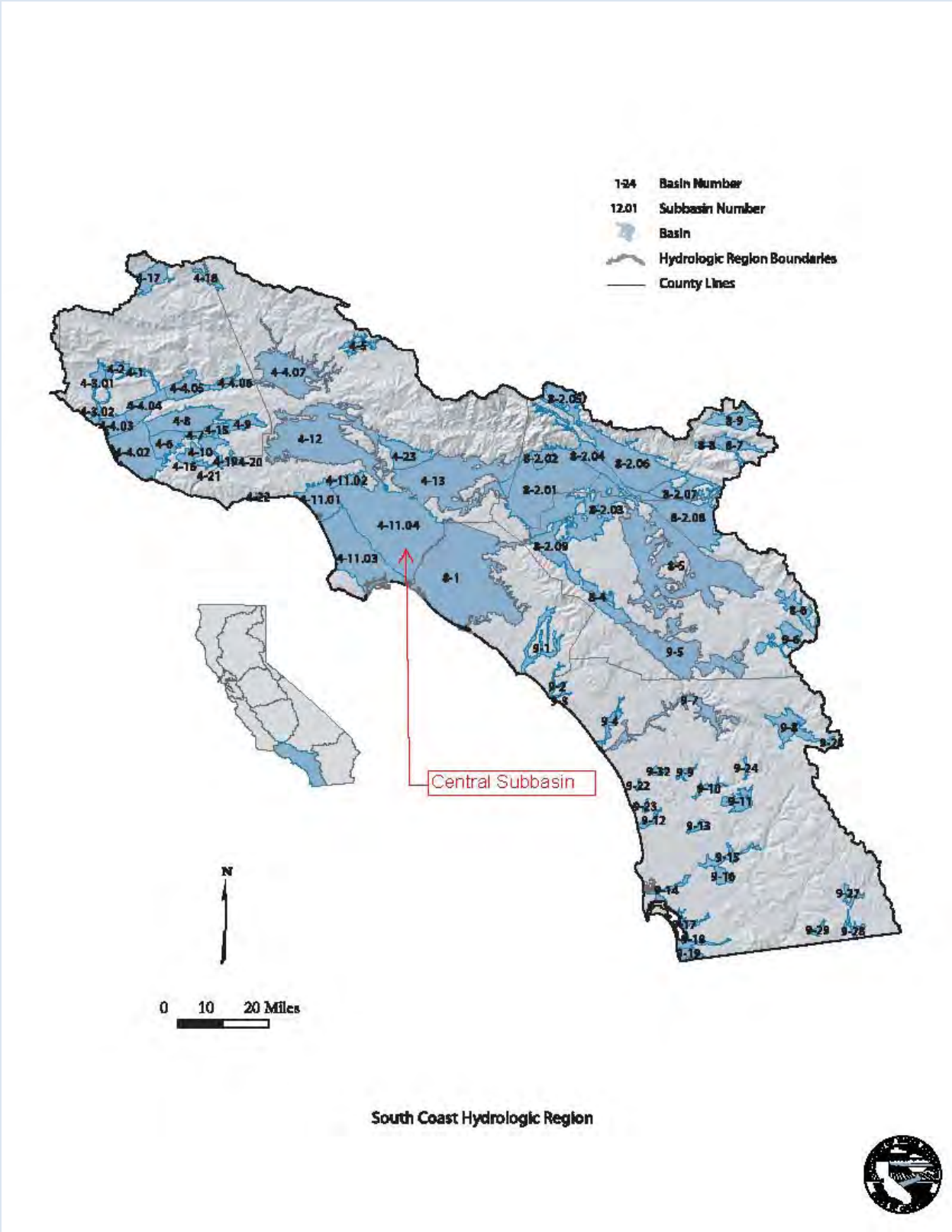
Urban Water Management Planning Act Requirement:

10631 (b)(2) If groundwater is identified as an existing or planned course of water available to the supplier provide…a description of any groundwater basin or basins from which the urban water supplier pumps groundwater.

As mentioned above, the City of Paramount pumps water from the Los Angeles County Central Subbasin, a large subbasin that makes up part of the Coastal Plan of Los Angeles Basin. The total surface area of this subbasin is approximately 177,000 acres. It is bounded on the north by a surface divide called the La Brea high, and on the northeast and east by emergent less permeable tertiary rocks of the Elysia, Repetto, Merced and Puente Hills. The southeast boundary between Central Basin and the Orange County Groundwater Basin roughly follows Coyote Creek, which is a regional drainage boundary. The southwest boundary is formed by the Newport Inglewood fault system and the associated folded rocks of the Newport Inglewood uplift. The Los Angeles and San Gabriel Rivers drain inland basins and pass across the surface of the Central Basin on their way to the Pacific Ocean. Average precipitation throughout the Subbasin ranges from 11 to 13 inches with an average of approximately 12 inches.

The description of the Central Basin, as provided in DWR's Bulletin 118 can be found in Appendix F. Additionally, the Central Basin's location as part of the South Coast Hydrologic Region can be seen in Figure 4.2.1.

Figure 4.2.1: Central Subbasin Location



Urban Water Management Planning Act Requirement:

10631 (b)(2) For those basins for which a court or the board has adjudicated the rights to pump groundwater, provide 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.

A court ordered adjudication for the Central Basin was issued in 1965. The adjudication was a response to rapidly declining groundwater levels in the basin due to overdraft that caused partial seawater intrusion. The Central Basin Judgment can be found in Appendix G.

The total allotted pumping rights from the Central Basin from all wells is 233,894 AFY. The total allotted pumping rights for the City of Paramount is 5,883 AFY. The City of Paramount may exceed its total allotment under two circumstances. The first of these is in the case that in the previous year, the City did not pump the total 5,883 AF of water. If this occurs, up to 20% of the total allotment may be carried over the subsequent year. The second case in which the City of Paramount may exceed its water pumping rights is if another water retailer chooses to lease water pumping rights to the City of Paramount. Although this is possible and is an option for the future, the City of Paramount has in past leased its own water pumping rights to other retailers; for example, in 2009 the City of Paramount leased a total 900 AF to the Cities of Long Beach (400 AF) and Cerritos (500 AF).

It is known that the total allotted pumping rights exceed the natural replenishment of groundwater to the Central Basin. Although the users of the Central Basin pump below their total allotted rights (approximately 174,000 AF were pumped in 2009), possible conditions of overdraft must still be considered. To avoid conditions of overdraft, the Water Replenishment District was formed to ensure that water was purchased where necessary to fully replenish the quantity of groundwater that could not be restored through natural processes. The Water Replenishment District manages the financial and logistical aspect of purchasing water to maintain safe groundwater levels.

Urban Water Management Planning Act Requirement:

10631 (b)(2) For basins that have not been adjudicated, (provide) 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.

The Central Basin is an adjudicated Subbasin, and therefore this section is not applicable.

Urban Water Management Planning Act Requirement:

10631 (b)(3) (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. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.

Table 4.2.1 illustrates the amount of groundwater pumped from the Central Basin over the last five years.

Table 4.2.1
Groundwater — Volume Pumped

Basin name(s)	Metered or Unmetered[1]	2006	2007	2008	2009	2010
Central Basin	Metered - volumetric	5,125	3,069	4,179	4,933	4,194
Total groundwater pumped		5,125	3,069	4,179	4,933	4,194
Groundwater as a percent of total water supply		65%	39%	53%	65%	59%

Units: acre-feet per year

In the years from 2006-2010, the quantity of groundwater pumped was not sufficient to meet the demands of the City of Paramount. As a result, the City supplemented water supply with recycled water and potable water purchased from the CBMWD. Together, these three sources were sufficient in meeting the total demands of the City of Paramount.

Currently, the groundwater supply is provided through two wells, Well No. 13 and Well No. 14. Together, these wells do not have sufficient capacity to pump the full 5,883 AF allotted to the

City of Paramount. Although if pumping the full water allotment under the adjudication, the groundwater supply would still be insufficient for the City of Paramount's total water needs. However, pumping the full capacity does reduce the City's dependence on imported water. The City of Paramount is constructing a third well to allow the pumping of the fully allocated amount of groundwater from the Central Basin. The capacity of the additional well is discussed in Section 4.6.

Urban Water Management Planning Act Requirement:

10631 (b)(4) (Provide 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.

The City of Paramount intends to continue using groundwater pumped from the Central Basin as the majority of the supply for the City of Paramount water demand. The projected amount of water to be pumped is shown in Table 4.2.2 below. The numbers projected in Table 4.2.2 are based on the Central Basin adjudication and anticipate the completion of Well No. 15 in September 2011. Upon completion, this additional well will allow the City of Paramount to pump the full amount allotted by the adjudication agreement. Currently, the volume pumped is limited by the capacities of the two wells. With the additional well adding between 2,500 and 3,000 GPM to the supply, the water reliability is expected to increase as redundancy in the pumping capacity of groundwater from the Central Basin reduces the likelihood that sufficient water quantities may not be pumped in the event of a well failure.

Table 4.2.2
Groundwater — Volume Projected to be Pumped

Basin name(s)	2015	2020	2025	2030
Central Basin	5,883	5,883	5,883	5,883
Total groundwater pumped	5,883	5,883	5,883	5,883
Percent of total water supply	63%	62%	62%	61%

The percentages reported in Table 4.2.2 represent an increase in the average percent of groundwater supplied to the City of Paramount over the last 10 years. Historically, the City has pumped on average 56% of its groundwater, and obtained the remainder from recycled and imported water. However, as the new well will allow full pumping capacity of groundwater from the Central Basin, the City of Paramount's dependence on imported water decreases.

4.3 TRANSFER OPPORTUNITIES

Urban Water Management Planning Act Requirement:

10631 (d) Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis.

CBMWD and MWD seek out opportunities for water transfer and exchanges to ensure reliability within their respective service areas. Water transfers and exchanges help water suppliers distribute water effectively to areas with limited water supplies. For example, the MWD accepts water through the SWP and Colorado River for distribution throughout Southern California. The City of Paramount, although not directly involved in the planning of these opportunities, may benefit from additional water supplies as a result of MWD and CBMWD's efforts in securing water transfers and exchanges. Information on new transfer and exchange opportunities to the MWD and CBMWD can be found in the respective 2010 Urban Water Management Plans.

The City of Paramount maintains three interconnections with the City of Long Beach. Although these are available for use at any time, and would serve groundwater and imported water to the City of Paramount, these interconnections are primarily used only during times when the CBMWD connections to the City of Paramount are unavailable due to maintenance or repair, or during emergency situations. The City of Paramount has no intention of using water supplied from the City of Long Beach through these connections as a short or long term water supply source.

Table 4.3.1
Transfer and Exchange Opportunities

Transfer Agency	Transfer or Exchange	Short Term or Long Term	Proposed Volume
City of Long Beach	0	0	0
Total	**0**	0	0

Units: acre-feet per year

4.4 DESALINATED WATER OPPORTUNITIES

Urban Water Management Planning Act Requirement:

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.

The City of Paramount is not currently exploring the possibility of using desalinated water as a water source independently. However, MWD is currently exploring the potential for use and distribution of desalinated water as part of its supply source. As an end user of water supplied through MWD, the City of Paramount may receive water, or benefit in other ways (i.e. increased supplies and reliability), as a result of this effort in discovering the opportunity for desalination. Therefore, a brief description of MWD's efforts in water desalination is discussed.

In 2001, MWD created the Seawater Desalination Project (SDP) to explore the potential for using seawater as a long term water supply. The SDP provides incentives for its member agencies to develop water through desalination; up to $250 per AF for all produced supplies. Currently, four desalination projects are receiving funding through MWD's SDP program. Each program has been vital in discovering and addressing both the technical and legal challenges associated with constructing a desalination plant. As of 2011, MWD reports that the Long Beach, South Orange Coastal, and West Basin Water Desalination Projects are currently in the pilot study process, while the Carlsbad Seawater Desalination Project is in the permitting phase. Table 4.4.1 shows the projected supplies provided by these four water desalination plants. In the coming years, these projects will help to determine the feasibility of using desalinated water for distribution through the City, either by establishing a water desalinating plant or through the purchase of desalinated water through MWD or another source.

Table 4.4.1 Current Desalination Projected Capacities		
Project	**Member Agency**	**Projected Capacity (AFY)**
Long Beach Seawater Desalination Project	Long Beach Water Department	10,000
South Orange Costal Ocean Desalination Project	Municipal Water District of Orange County	16,000-28,000
Carlsbad Seawater Desalination Project	San Diego County Water Authority	56,000
West Basin Seawater Desalination Project	West Basin Municipal Water District	20,000
Total		102,000-114,000

MWD's current goal is to supply 125,000 AFY of water through seawater desalination by 2025.

4.5 RECYCLED WATER OPPORTUNITIES

Urban Water Management Planning Act Requirement:

10633 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.

The City of Paramount is committed to potable water conservation through the treatment and distribution of recycled water for non-potable uses. This effectively decreases the total water that must be purchased through CBMWD, and is a significant part in the statewide effort to conserve and manage potable water resources. Since planning and constructing its recycled water systems in the early 1990's, Central Basin has become an industry leader in water re-use.

The City of Paramount is part of an integrated water recycling program that includes the Cities in Los Angeles County as well as water districts including the Metropolitan Water District of Southern California. Wastewater is collected and treated by the Los Angeles County Sanitation District (LACSD). Wastewater undergoes tertiary treatment (as described below) and is subsequently distributed for recycled water use or disposed of as necessary. Water is treated at one of 11 wastewater and water reclamation facilities and then sold and distributed throughout Los Angeles County. The LACSD reports nearly 200,000 AFY of wastewater treated to recycled water quality. The water produced is used either as recycled water for industrial,

landscape irrigation, or agricultural use, or for groundwater recharge.

Treated wastewater from the LACSD's Los Coyotes Water Recycled Plant and San Jose Creek Water Reclamation Plant are the source of recycled water for the City of Paramount. After the tertiary treatment process, described below, recycled water available for use, groundwater recharge, or discharge to the ocean is available for use. The CBMWD purchases a portion of the recycled water from these two plants. Water is then sold and distributed to the City of Paramount's recycled water customers. In 2010, San Jose Creek and Los Coyotes Plants treated a total of 111,552 AF of wastewater to recycled water quality standards. Of this, 354 AF was eventually distributed to the City of Paramount.

The City of Paramount is part of a recycled water distribution system that includes the members of CBMWD, San Gabriel Valley Municipal Water District (SGVMWD), and the Upper San Valley Gabriel Municipal Water District (USGVMWD). The existing integrated recycled water system for these customers consists of approximately 71.3 miles of pipeline, four booster stations, three control valves, and no reservoirs.

Recycled water, used for irrigation purposes, is treated (as described below) and then distributed or disposed of as necessary. The recycled water system is designed to serve irrigation water for customers including golf courses, homeowner's association grounds, and public landscapes such as parks, schools, and highway medians.

Urban Water Management Planning Act Requirement:

10633 (a) (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.

Wastewater in the City of Paramount is collected by the LACSD sewage system and sent to one of 11 treatment or wastewater plants. At these plants, the water goes through a three stage treatment process consisting of primary, secondary, and tertiary treatment stages. After tertiary treatment, water is pumped and made available to for use to recycled water customers, used for groundwater recharge, or discharged into the ocean.

Upon collection of wastewater from the Cities of Los Angeles County, wastewater undergoes primary treatment. In this stage, water is collected in long concrete tanks that act as a river. Primary treatment refers to the removal of macroscopic waste particles in the water. Light materials will flow to the top and heavier materials will sink to the bottom. Both the light and

heavier materials can be removed and are sent to the Joint Water Pollution Control Plant for disposal.

The primary treated water is sent to the second stage: secondary treatment. Secondary treatment acts as a biological treatment step to reproduce what naturally occurs in water treatment in rivers. The same microorganisms that feed on dissolved organic particles during natural water treatment are used in secondary treatment. Oxygen is supplied to create an ideal feeding environment for the microorganisms, decreasing the overall time required for treatment. As the microorganisms complete the feeding process, they sink to the bottom and are removed to be reused in another batch of wastewater.

Finally, the water enters tertiary treatment, where water is sent through filters to remove any last suspended particles in the water. The filters contain layers of anthracite coal, sand, and gravel. Once sent through the filters, the water is disinfected. Chlorine from the disinfection process must be removed prior to use. Following the disinfection process and the removal of excess chlorine, water is safe for use and is distributed to the customers of the LACSD reclaimed water. Water that is not used is discharged into the ocean.

Urban Water Management Planning Act Requirement:

10633 (b) (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.

All of the wastewater collected by the LACSD is treated to tertiary standards, as described above. Once the water is treated, it is either used or discharged to the ocean. The total combined capacity of the two water reclamation plants that serve the City of Paramount and CBMWD, the San Jose Creek WRP and the Los Coyotes WRP, is approximately 153,000 AFY. The 2010 CBMWD UWMP projected that wastewater collected within its service area (encompassing the City of Paramount) will be approximately 110,000 AF in 2015.

It is estimated that the water used by the City for non-landscape and irrigation needs will be converted to wastewater, and sent to the LACSD for treatment. In 2010, approximately 93% of total potable water use was not used for landscape or irrigation needs. To project the total wastewater flows for the next 20 years, this factor was used. These values are shown in Table 4.5.1. In addition, Table 4.5.2 shows the amount of treated wastewater expected to be discharged. This value is obtained by multiplying the percentage of wastewater that is normally discharged by LACSD, which is approximately 56.1% of all recycled water produced. This factor was applied to the values in Table 4.5.1 to estimate the amount of wastewater from the

City of Paramount that would not be used for recycled water purposes, and instead discharged to the ocean. These projected discharge values are shown in Table 4.5.2.

Table 4.5.1
Recycled Water — Wastewater Collection and Treatment

Type of Wastewater	2005	2010	2015	2020	2025	2030
Wastewater collected & treated in service area	7,101	5,745	6,768	6,746	6,911	7,079
Volume that meets recycled water standard	7,101	5,745	6,768	6,746	6,911	7,079

Units: acre feet per year

Table 4.5.2
Recycled Water — Non-Recycled Wastewater Disposal

Method of Disposal	Treatment Level	2010	2015	2020	2025	2030
Discharge to Ocean	Tertiary	3,223	3,797	3,785	3,877	3,971
	Total					

Units: acre feet per year

Urban Water Management Planning Act Requirement:
10633 (c) (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

Recycled water is used at 40 sites within the City of Paramount service area, with a total estimated demand of 504 AFY. The 2008 CBMWD Recycled Water Plan identifies that all of these 40 customers use water for landscape irrigation. Recycled water users requiring more than 20 AFY of recycled water within the City of Paramount are identified in Table 4.5.3.

Table 4.5.3 Recycled Water — Potential Future Use (Current Customers)		
Name	**Recycled Water Demand**	**Water use**
ABC Nursery/Paramount	40	Irrigation
Alondra Junior High School	58	Irrigation
Compton Golf Course	50	Irrigation
Paramount High School	20	Irrigation
Paramount Junior High School	40	Irrigation
Paramount Park	36	Irrigation
Spane Park	29	Irrigation
Other Users	231	Irrigation

Urban Water Management Planning Act Requirement:

10633 (d) (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.

The 2008 CBMWD Recycled Water Master Plan identifies areas for expansion of the entire CBMWD recycled water system. In total, the plan identifies an additional 55,479 AFY of potential for recycled water use within the service areas of the CBMWD, SGVMWD, and USGVMWD. Of this potential additional use, 1,147 AFY is identified as demand that could be supplied through the City of Paramount recycled water system. The types and feasibility of these are located in Table 4.5.4 below. Expanding the recycled water system is currently not considered feasible because the current plan by the CBMWD to expand the recycled water system does not include the City of Paramount. Instead, the major project, the Southeast Water Reliability Project (SWRP), involves a much higher potential of recycled water users. The SWRP is described below.

Table 4.5.4 Recycled Water — Potential Future Use						
User type	**Description**	**Feasibility**	**2015**	**2020**	**2025**	**2030**
Agricultural irrigation						
Landscape irrigation	Parks, School Districts, Medians, Nursery's, etc.	**No**	612	612	612	612
Commercial irrigation[3]						
Golf course irrigation						
Wildlife habitat						
Wetlands						
Industrial reuse	Laundry, Paramount Petroleum, Metals Processing	**No**	535	535	535	535
Groundwater recharge						
Seawater barrier						
Geothermal/Energy						
Indirect potable reuse						
	Total		1,147	1,147	1,147	1,147

Units: acre-feet per year

Urban Water Management Planning Act Requirement:

10633 (e) (Describe) 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.

Table 4.5.5 shows the projected 2005 use for recycled water in 2010. It can be seen that the actual use for 2010 did not meet the expected projection. This could be due to a general decrease in the use of recycled water, both within the City of Paramount and throughout the whole customer base of the LACSD.

Table 4.5.5 Recycled Water — 2005 UWMP Use Projection Compared to 2010 Actual		
Use type	**2010 Actual Use**	**2005 Projection for 2010**
Agricultural irrigation	17.57	99
Landscape irrigation	263.02	320
Commercial irrigation	0	0
Golf course irrigation	27.55	0
Wildlife habitat	0	0
Wetlands	0	0
Industrial reuse	11.15	13
Groundwater recharge	0	0
Seawater barrier	0	0
Geothermal/Energy	0	0
Indirect potable reuse	0	0
Total	319.29	432

Units: acre-feet per year

Urban Water Management Planning Act Requirement:

10633 (f) (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.

The City of Paramount, CBMWD, and MWD encourage recycled water use among its customers. One of the most compelling reason ways to encourage the use of recycled water is through the use of financial incentives. Recycled water is available at anywhere from a 30-50% discount to customers who use it over potable water. This allows financial savings while encouraging water conservation. In addition, the CBMWD also encourages the use of recycle by emphasizing the benefits of recycled water to its customers. Among these benefits include the increased reliability and the use of recycled water being consistent with the statewide goals for water conservation. CBMWD notes that, even during a drought, wastewater will still be produced and must be treated to recycled water standards.

CBMWD will also advance funds necessary for retrofitting existing potable connections for use with recycled water. CBMWD realizes that the capital costs associated with this retrofitting may be unavailable. To prevent this from hindering the use of recycled water at these sites, CBWMD will retrofit the existing system and allow monthly reimbursement for advanced funds.

Quantification of the results of the potential impact of the incentives is estimated below in Table 4.5.5. These numbers are based on the current plan to expand different parts of the recycled water system within the CBMWD service area, not including the City of Paramount, as part of the SWRP.

Table 4.5.5
Methods to Encourage Recycled Water Use

Actions	Projected Results				
	2010	2015	2020	2025	2030
Financial Incentives	0	0	0	0	0
Total	0	0	0	0	0

Units: acre-feet per year

In addition to the City of Paramount and CBMWD incentives, MWD also has an extensive incentive program for encouraging the use of recycled water among its member agencies. Please refer to the Metropolitan Water District of Southern California 2010 UWMP for more information.

Urban Water Management Planning Act Requirement:
10633 (g) (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.

A recycled water master plan was developed in 2008 for the CBMWD which includes the City of Paramount's recycled water system. CBMWD assists to oversee the purchase, use, and sale of recycled water to the individual water purveyors in Los Angeles County.

The 2008 Recycled Water Master Plan identifies potential use for recycled water within the City of Paramount, as well as many other surrounding cities and water districts. The Plan includes recommendations and suggestions for improvement to the recycled water system. Recommendations were based on cost feasibility, as well as the potential customer demand for recycled water. Because of this, recommendations were not made to include the City of Paramount in the Capital Improvement Plan for expanding the recycled water system. Instead, priority was given to a project with larger potential users. The Southeast Water Reliability Project (SWRP) will provide consist of 11 miles of pipeline extending from Pico Rivera to Vernon. It is expected that the SWRP will increase recycled water sales to 11,000 AFY within the first few years and ultimately up to 16,000 AFY.

4.6 FUTURE WATER PROJECTS

Urban Water Management Planning Act Requirement:

10631 (h) (Describe) 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.

In accordance with a recommendation made in the City of Paramount's 2007 Water Master Plan, the City is constructing a new well, Well No. 15, to supplement the groundwater supply. Currently, the City is unable to pump all of the water allotted by the adjudication. This increases the City's dependence on imported water from the CBMWD and MWD. The new well will both increase supply reliability, as the City's pumped groundwater is a more reliable source, as well as decrease water costs, as it is more cost effective for the City of Paramount to utilize groundwater. In addition, a new well will increase the total pumping capacity of the City of Paramount to above its adjudicated rights. Although the City will not pump beyond the allotted amount, the additional well provides additional redundancy in the water supply system. In the event that Well No. 13 or Well No. 14 were to be unusable for a period of time, redundant water supplies would be able to account for a portion of the lost supply.

The new Well No. 15 will treat water at the well site to ensure the water meets all potable standards, including those for arsenic, manganese, and bacteria contamination. The projected capacity of Well No. 15 is shown in Table 4.6.1.

Table 4.6.1
Future Water Supply Projects

Project Name	Start & End Date	Potential Project Constraints	Normal -year supply	Single-dry year supply	Multiple -dry year first year supply[3]	Multiple -dry year second year supply[3]	Multiple -dry year third year supply[3]
Well No. 15	Sept. 2011	None	2,928	2,928	2,928	2,928	2,928
	Total		2,928	2,928	2,928	2,928	2,928

Units: acre-feet per year

5 WATER SUPPLY RELIABILITY & WATER SHORTAGE CONTINGENCY PLANNING

5.1 Water Supply Reliability

Urban Water Management Planning Act Requirement:

10620(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.

Water supply reliability includes the pumped groundwater from the Central Basin, the availability of the water purchased through the Central Basin Municipal Water District (CBMWD) and the distribution system that makes up the City of Paramount's recycled water supply. Each of these sources is considered to be a reliable water supply to the City. Currently, the City of Paramount is trying to reduce its dependence on imported water from the CBMWD by constructing a new well. Well No. 15 will allow the City of Paramount to pump the full amounted allotted through the adjudication agreement.

Since a portion of the City of Paramount's water supply is provided by CBMWD, which in turn is provided through the Metropolitan Water District of Southern California (MWD) and the State Water Project (SWP), the reliability analysis for this water source will be heavily dependent on the reliability analyses of these agencies. Although the City is dependent on these sources to provide a reliable water supply, the City also works with the CBMWD to ensure water reliability in the future. As it is not possible to support the entire water demand through groundwater because of the adjudication agreement, the City of Paramount will continue to work with CBMWD to ensure that the necessary improvements are made to ensure a high quality and reliable source of water.

Urban Water Management Planning Act Requirement:

10631(c)(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.

Currently, the only sources of potable water that the City of Paramount utilizes are supplier pumped groundwater from the Central Basin and wholesale distributed water through CBMWD. Additional water supplies are obtained by treating wastewater and using it as recycled water for irrigation purposes only.

Table 5.1.1
Factors Resulting in Inconsistency of Supply

Water Supply Sources	Legal	Environmental	Water Quality	Climatic	Additional information
Central Basin Groundwater	✓		✓	✓	NA
CBMWD Wholesale Water			✓		NA
Recycled Water			✓		NA

Units: acre-feet per year

5.1.1 Central Basin Groundwater

Although it is deemed the most reliable and most cost effective water supply source, several factors affect the reliability of the groundwater supply from the Central Basin. Despite these factors, the City of Paramount still considers optimizing the use of groundwater from the Central Basin a priority in the future.

Legal

As the Central Basin is adjudicated, it is subject to legal considerations. The amount of groundwater allowed to be pumped is set at a constant rate by the Adjudication Agreement in Appendix G. Although it is not anticipated that total water supplies from the Central Basin will decrease as a result of the adjudication, it is unlikely that they will increase with increasing demand. Therefore, alternative ways to supplement groundwater must be considered, as pumping more from the Basin will be legally restricted.

Water Quality

Groundwater quality from the Central Basin is discussed in Section 5.3 below.

Climatic

Groundwater levels are highly dependent on climate issues such as annual rainfall and average temperature. During dry or wet years, the groundwater levels in the Central Basin are dynamic due to the large number of water retailers that use it as either a sole or majority source of water. Inconsistency in water levels due to drought is a short-term event that can significantly impact the water supply to the City of Paramount. Currently the CBMWD, in conjunction with the City of Paramount and its other member agencies, has several preventative measures in place to mitigate the effects a drought may have on the overall water supply, including maintaining a groundwater recharge system, surplus capacity, and emergency water connections for imported water. For more information on the effects of a drought, see Section 5.4, which identifies the water reliability during a normal, single dry, and multiple dry years.

5.1.2 CBMWD Wholesale Water

CBMWD identified that its water supply to the City is considered reliable and sufficient to meet demand. However, the reliability of the supply is dependent on the water quality delivered by the SWP to MWD. In general, the SWP quality has been considered good, with delivered water meeting the state threshold requirements. But as seawater intrusion into the Bay-Delta increases, water quality can be diminished. In addition, as water moves through the Bay-Delta, levels of total organic carbon and bromide are likely to increase. Water quality can also be affected by the amount of wastewater that is disposed, as this provides a means for the transportation of salts and pathogens to clean water supplies. To prevent these water quality issues from affecting the overall reliability of supply, water quality analyses are conducted throughout the delivery process and at the water treatment plants to ensure water is safe prior to delivery. Furthermore, state regulatory factors have included biological assessments affecting the amount of water delivered from the Delta to the SWP system to prevent degradation of water quality from the Delta. MWD, CBMWD, and the City of Paramount are diligent in identifying poor water quality and acting immediately to ensure it is treated properly to ensure a clean source of potable water. Please see Section 5.3 for more information regarding water quality.

5.1.3 Recycled Water

Recycled Water is treated to the tertiary level, as described in Chapter 4. This water supply is also deemed reliable. Similar to the City of Paramount's potable water supply, water quality issues have the potential to impact reliability and threaten the supply of recycled water.

The process of treating and distributing wastewater and recycled water can be hazardous due to harmful bacteria and waste contents in the water. Due to this, the industry must meet water quality standards set forth by regulating agencies. These standards are prone to change as new issues develop; in response to these changing standards, recycled water treatment plants must adapt to the regulations and modify the process as necessary to ensure that water can continually be delivered to its customers. The recycled water system between the Los Angeles County Sanitation District (LACSD), CBMWD, and the City of Paramount to deliver recycled water ensures that all aspects of distributing safe and reliable recycled water are met, and that high quality recycled water is delivered to its customers for non-potable use. LACSD is also receptive to any changes that must be made in the treatment or distribution process to ensure compliance with all water quality standards and that water is safe for irrigation use.

5.2 Water Shortage Contingency Planning

Urban Water Management Planning Act Requirement:

10632(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.

Catastrophic failures that put the water supply at risk include fires and earthquakes that could damage the infrastructure to the water distribution system. In the event of a catastrophic event that prevents the City from obtaining water for distribution, CBMWD implements actions and methods to continue supplying water to customers of its member agencies. Water reserves are available to MWD through Diamond Lake, as well as other surface reservoirs, and it is estimated that MWD could provide full supply for up to six months for all of its service areas following a catastrophic event that disrupts the supply of water. In addition, methods to ensure that water is continually supplied to the customers include stockpiling emergency pipeline repair materials and coordinating with the California Emergency Management Agency (Cal EMA) and Emergency Operations Center (EOC) in the event of a catastrophic disruption of supply.

Any effect seen by the CBMWD during a catastrophic event would impact the water supply to the City. As a result, the City is subject to the actions and rationing of CBMWD. During any kind of catastrophic event that disrupts the water supply, including a regional power outage or an earthquake, the City of Paramount in conjunction with CBMWD and MWD are prepared to continue providing a reliable source of water.

5.2.1 Regional Power Outage

The City has identified the possibility of a regional power outage and its effect on the water supply. In the event of a regional power outage, the City has backup generators available to ensure that water pumping continues through the wells and pumping stations. In addition, to ensure the imported water supply is made available, MWD has backup generation at its facilities, as well as the ability to employ gravitational flow from regional reservoirs such as Lake Mathews, Castaic Lake, and Silverwood Lake. Mobile generators are also available as needed.

5.2.2 Earthquake

In the event of a catastrophic earthquake, the City can coordinate with MWD and CBMWD to ensure that any damage lines are repaired as necessary to continue distributing water. In this event, MWD would activate its Emergency Operation Center (EOC) to quickly respond to emergencies and provide emergency services to its customers. The goal of the EOC is to identify leaks and other weaknesses in the system following a catastrophic earthquake, and to quickly isolate the problem in order to reduce wasted water and provide a potable water supply to the population.

With population growth, energy shortages, earthquakes, and the threat of terrorism experienced by California; maintaining the gentle balance between water supply and demand is a complicated task that requires planning and forethought. In the event that a water shortage occurs, simple measures can be implemented to conserve the water supply at a public level. Below, stages are discussed during which various conservation measures will be imposed by the City and CBMWD.

Table 5.2.1 Water Shortage Contingency — Rationing Stages to Address Water Supply Shortages		
Stage No.	**Water Supply Conditions**	**% Shortage**
Water Shortage Stage I – Moderate	A Level I Water Supply Shortage exists when the city council determines, in its sole discretion, that due to drought or other water supply conditions, a water supply shortage or threatened shortage exists and a 25% consumer demand reduction is necessary to make more efficient use of water and appropriately respond to existing water conditions.	0-25%
Water Shortage Stage II – Severe	A Level II Water Supply Shortage exists when the city council declares, in its sole discretion, that due to drought or other water supply conditions, a water supply shortage or threatened shortage exists and a 35% consumer demand reduction is necessary to make more efficient use of water and appropriately respond to existing water conditions.	25-35%
Water Shortage Stage III – Critical	A Level III Water Supply Shortage is referred to as a Water Shortage Emergency. A Level III condition exists when the city council declares, in its sole discretion, a water shortage emergency and notifies its residents and businesses that a 50% reduction in consumer demand is necessary to maintain sufficient water supplies for public health and safety, pursuant to Water Code Section 350 et seq.	35-50%

Urban Water Management Planning Act Requirement:

10632(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.

10632(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.

In the event of a significant reduction of water supply, the City has several stages of actions to take and policies to implement to minimize the impacts of water shortage, prepare for an increase in shortage, and attempt to conserve water to prevent further shortage. The City has drafted a Water Conservation Ordinance, which describes the measures to take in the event of a water shortage, including different stages of action corresponding to different levels of drought. The Water Conservation Ordinance can be found in Appendix H. Table 5.2.2 provides an overview of the mandatory prohibitions and the consumption reduction methods the City will implement to compensate for the water shortage.

Table 5.2.2
Water Shortage Contingency — Mandatory Prohibitions

Examples of Prohibitions	Stage When Prohibition Becomes Mandatory
Demand reduction program	All Stages
Reduce pressure in water lines	All Stages
Flow restriction	III
Restrict for only priority uses	III
Use prohibitions	All Stages
Voluntary rationing	All Stages
Mandatory rationing	All Stages
Incentives to reduce water consumption	All Stages
Percentage reduction by customer type	All Stages

Stage 1 Water Supply Shortage (0% - 25% reduction)

The following mandatory water conservation requirements apply during such time that the Stage 1 Water Supply Shortage is in effect:

- **Limits on Watering Days**: Watering or irrigation of lawn, landscape or other vegetated area with potable water is limited to 3 days per week. During the months of November through March, watering or irrigation of lawn, landscape or other vegetated area with potable water is limited to no more than 2 days per week. This provision does not apply to landscape irrigation systems that exclusively use very low-flow drip type irrigation systems when no emitter produces more than 2 gallons of water per hour. This provision does not apply to use of a hand-held bucket or similar container, a hand-held hose equipped with a positive self-closing water shut-off device, or for very short periods for the express purpose of adjusting or repairing an irrigation system.
- **Obligation to Fix Leaks, Breaks or Malfunctions**: All leaks, breaks, or other malfunctions in the water user's plumbing, distribution, or irrigation system must be remedied within seventy two (72) hours of observation and/or notification by the City.
- **No Excessive Water Flow or Run-Off:** Watering or irrigation of any lawn, landscape or other vegetated area in a manner that causes or allows excessive water flow or run-off onto an adjoining sidewalk, driveway, street, alley, gutter or ditch must be must be repaired within 5 days of observation and/or notification by the City.
- **No Washing Down Hard or Paved Surfaces:** Washing down hard or paved surfaces, including but not limited to sidewalks, walkways, driveways, parking areas, tennis courts, patios or alleys is prohibited except when necessary to alleviate safety or sanitary hazards and only by use of a hand-held bucket or similar container, a low-volume high pressure cleaning machine equipped to recycle any water used or a low volume high pressure water broom.
- **Re-Circulating Water Required for Water Fountains and Decorative Water Features:** Operating a water fountain or other decorative water feature that does not use re-circulating water is prohibited.
- **Limits on Washing Vehicles:** Using water to wash or clean a vehicle including but not limited to any automobile, truck, van, bus, motorcycle, boat or trailer whether motorized or not is prohibited, except by use of a hand-held bucket or similar container or a hand-held hose equipped with a positive self-closing water shut-off nozzle or device.

- **Drinking Water Served Upon Request Only:** Restaurants are prohibited from providing drinking water to any person unless expressly requested by that person.
- **Other Prohibited Uses**:
    - Use only recycled water for construction site dust control, consolidation of backfill.
    - The City Council may implement other prohibited water uses as determined by the City after notice to customers.

Stage 2 Water Supply Shortage (25% - 35% reduction).

The following mandatory water conservation requirements, in addition to the Stage 1 actions, apply during such time that the Stage 2 Water Supply Shortage is in effect:

- **Limits on Watering:** Watering or irrigation of lawn, landscape or other vegetated area with potable water is limited to 2 days per week. During the months of November through March, watering or irrigation of lawn, landscape or other vegetated area with potable water is limited to no more than 1 day per week. This provision does not apply to landscape irrigation systems that exclusively use very low-flow drip type irrigation systems when no emitter produces more than 2 gallons of water per hour. This provision does not apply to use of a hand-held bucket or similar container, a hand-held hose equipped with a positive self-closing water shut-off device, or for very short periods for the express purpose of adjusting or repairing an irrigation system.
- **Obligation to Fix Leaks, Breaks or Malfunctions**: All leaks, breaks, or other malfunctions in the water user's plumbing, distribution, or irrigation system must be remedied within forty eight (48) hours of observation and/or notification by the City.
- **Other Prohibited Uses:**
    - No filling, cleaning and/or refilling of decorative fountains, ornamental lakes or ponds except to the extent needed to sustain aquatic life, provided that such animals have been actively managed within the water feature prior to declaration of this supply shortage stage.
    - Residential car washing prohibited. Use car washes available with water recycling systems.
    - The filling or topping off of any new or existing residential pools or outdoor spas is prohibited.
    - Planting of new turf grass is prohibited.

- Outdoor evaporative mist coolers are prohibited.
- Main line flushing is allowed for emergency purposes only.
- The City may implement other prohibited water uses as determined by the City Council, after notice to Customers.

Stage 3 Water Supply Shortage – Emergency Condition (Greater than 35% reduction)

The following mandatory water conservation requirements, in addition to Stage 1 and Stage 2 actions, apply during such time that the Stage 3 Water Supply Shortage is in effect:

No Watering or Irrigating: Watering or irrigating of lawn, landscape or other vegetated area with potable water is restricted in accordance with allotments as set forth by the City during a Stage 3 Water Supply Shortage. This restriction does not apply to the use of recycled water or to the following categories of use:

a. Maintenance of existing landscape necessary for fire protection;

b. Maintenance of existing landscape for soil erosion control;

c. Maintenance of plant materials identified to be rare or essential to the well-being of protected species;

d. Maintenance of landscape within active public parks and playing fields, daycare centers, golf course greens, and school grounds, provided that such irrigation does not exceed 2 days per week;

e. Actively irrigated environmental mitigation projects.

- **Obligation to Fix Leaks, Breaks or Malfunctions**: All leaks, breaks, or other malfunctions in the water user's plumbing, distribution, or irrigation system must be remedied within twenty four (24) hours of observation and/or notification by the City.
- **Other Prohibited Uses**: The City may implement other prohibited water uses as determined by the City Council, after notifying customers.

Urban Water Management Planning Act Requirement:

10632(f) Penalties or charges for excessive use, where applicable.

In the case of a water supply shortage, violators of the Water Conservation Ordinance can face a maximum of fine of $1,000 or imprisonment for no more than 30 days. Table 5.2.3 describes

the penalties associated with single and recurring violations, which are outlined in the ordinance. This includes a first warning, and subsequent fines increasing from $100, and, on the fourth violation, a notice of intent to install a flow restrictor, with the financial burden of the installation of a flow restrictor lying on the suspected violator of the ordinance.

Table 5.2.3
Water Shortage Contingency — Penalties and Charges (Stage 1)

Violation	Stage When Penalty Takes Effect	Penalty or Charge
First Violation of Water Ordinance	Stage 1	Written Warning
Second Violation of Water Ordinance within a 12 Month Period	Stage 1	Written Warning and $100
Third Violation of Water Ordinance within a 12 Month Period	Stage 1	$150
Fourth Violation of Water Ordinance within a 12 Month Period	Stage 1	$200
Fifth and Subsequent Violations of Water Ordinance within a 12 Month Period	Stage 1	$250 and subject to a water flow restrictor device of approximately 1 gpm

Table 5.2.4
Water Shortage Contingency — Penalties and Charges (Stages 2 and 3)

Violation	Stage When Penalty Takes Effect	Penalty or Charge
First Violation of Water Ordinance	Stages 2 and 3	Written Warning and $100
Second Violation of Water Ordinance within a 12 Month Period	Stages 2 and 3	$200
Third Violation of Water Ordinance within a 12 Month Period	Stages 2 and 3	$250
Fourth Violation of Water Ordinance within a 12 Month Period	Stages 2 and 3	$350
Fifth and Subsequent Violations of Water Ordinance within a 12 Month Period	Stages 2 and 3	$500, subject to a water flow restrictor device of approximately 1 gpm, and possible termination of service

Urban Water Management Planning Act Requirement:

10632(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.

During a water shortage, revenue is expected to decrease due to a reduction in water sales. Furthermore, expenditures would be expected to increase due to the necessary marketing of water conservation methods to reduce water use. In the event that expenditures significantly outweigh revenue, the City has an emergency fund that could be used to provide funds; however, these funds would need to be replenished through additional water sales following any kind of emergency situation. The City also has the authority to increase water use rates during times of drought. The results of this would be two-fold: bringing in additional revenue with similar sales while simultaneously discouraging water waste. These options allow the City to respond quickly to funding issues accompanied with a drought situation.

Urban Water Management Planning Act Requirement:

10632(h) A draft water shortage contingency resolution or ordinance.

The draft Water Conservation Ordinance, which describes the actions to be taken in case of a water shortage, can be found in Appendix H.

5.3 Water Quality

Urban Water Management Planning Act Requirement:

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 urban water management strategies and supply reliability.

Each source of water for the City of Paramount presents its own, unique water quality issues. These issues are presented below.

5.3.1 Central Basin Groundwater

Groundwater supplied by the Central Basin has historically had good water quality. Specifically to the City of Paramount, contents of Arsenic and Manganese have been detected above the Maximum Contaminant Level (MCL) in the wells, requiring that extra treatment must completed at the well head to prevent distribution of poor quality water. In addition, the City of Paramount performs water tests to ensure that water quality is met and contaminant and bacteria presence are acceptable and the CBMWD conducts its own water quality tests and monitoring of the wells to ensure that water is acceptable for delivery within its service area, as well as its purveyor's service areas.

Arsenic

Arsenic is a toxic chemical that can be found naturally in groundwater; in the United States it is most commonly found in the groundwater of the Southwest. It is commonly known to cause skin cancer.

Historically, the arsenic levels in the groundwater at Well No. 13 had averaged 15 ppb, which was acceptable. In 2006, the Federal MCL for arsenic was lowered to 10 ppb. As a result, the City of Paramount was required to construct additional treatment at Well No. 13 to ensure that arsenic levels would be reduced to a level below the MCL. The new treatment facilities, according to the 2007 Water Master Plan, "include a sodium bisulfite feed system for iron/manganese treatment; a ferric chloride chemical feed system for arsenic reduction; and pressure filters." Water quality issues regarding arsenic have not been noted since the construction of the additional treatment.

Manganese

Elevated levels of manganese have been noted at the Well No. 13. Currently, the MCL set by the California Department of Public Health was updated in 2003 to be 0.5 ppm; levels exceeding this have been noted. Although this has been noted in the past, in response to the more stringent arsenic requirements (as described above), the City of Paramount has updated the Treatment system at Well No. 13. As part of this update, the City also included manganese treatment as part of the requirements, to ensure manganese levels will not exceed the MCL. Since the construction, no water quality issues regarding manganese have been noted.

5.3.2 CBMWD Wholesale Water

The water quality issues associated with the water supply to the City are the same as quality issues experienced by CBMWD, and similar to those experienced by MWD. MWD has identified threats to the water quality of water supplied through the Colorado River and the State

Water Project. MWD reports that increased salinity and chemicals (i.e. chromium VI, etc.) in the water it is supplied with, as a theoretical water quality event, will cause at most a 15% reduction in supply. However, MWD also noted if concentrations of these contaminants exceed the potable water quality threshold, tactics such as utilizing only small amounts of the affected water and blending it with potable, processed water would reduce the concentration to treatable and acceptable levels. The MWD has stated that it "anticipates no significant reductions in water supply availability from [the Colorado River, State Water Project, and local groundwater] sources due to water quality concerns over the study period."

The City realizes the importance of constantly assuring that the water it distributes meets potable water stands. Although there are no water quality issues that immediately threaten the supply to the City's customers, the City maintains knowledge of water quality issues to prevent water of poor quality from being distributed. Following are a description of the most pertinent issues of concern, due to either historically increasing levels (water salinity) or threshold reductions (Chromium VI).

Salinity

Increased salinity in the water received from the Colorado River has required MWD to utilize one of the tactics described above: blending SWP water with Colorado River water to reduce the overall salinity concentration. Although this has not caused water supply shortages, if salinity levels continue to increase, additional membrane treatment of water from the Colorado River may be required. This will slow the water purification process down, and could result in up to a 15% reduction in water supply.

To prevent a reduction in supply, MWD has established a Salinity Management Policy, which sets the goal of delivering water with less than 500 mg/L of total dissolved solids (TDS). Generally, this has caused issues with only the Colorado River; the SWP has historically been observed to have significantly lower salinity levels.

Chromium VI (Hexavalent Chromium)

While currently there is no drinking water standard for Chromium VI, the OEHHA established a draft PHG for chromium VI in drinking water. The draft proposes a PHG of 0.02 pbb Chromium VI in drinking water. However, the development of the PHG is indicative of future potential standards for drinking water. MWD utilizes analytical testing to ensure that Chromium VI levels do not exceed the current standard. In the event that the Chromium VI standards are reduced, MWD would not have to change its testing method, as the current minimum threshold for its analytical testing is below the proposed concentration threshold.

MWD records of Chromium VI content reveal that, if more stringent goals are implemented, additional treatment of SWP water may be required as levels have historically been noted to exceed the proposed PHG. The draft released by OEHHA on December, 31 2010 states that the PHG of 0.02 ppb is intended to be a "stringent health-protective goal" as opposed to a "maximum 'safe' level of chromium 6 in drinking water." In contrast to SWP water, water from the Colorado River has historically been recorded as generally having undetectable levels of Chromium IV.

Table 5.3.1 indicates the potential impacts of water quality on the City's water supply, as identified by CBMWD and MWD.

5.3.3 Recycled Water

In addition to affecting the potable water supply, similar water quality issues also affect the Recycled water supply. High levels of contaminants (i.e. TDS) in wastewater may require additional treatment to ensure that safe and reliable recycled is delivered to its users. Since recycled water is used primarily for irrigational purposes within the service area of both the City of Paramount and the CBMWD the main effect of poor quality recycled water would be on crop and plant yields. High levels of salinity in the recycled water can be harmful to plant life and could prevent growth. If this were to occur, additional and more expensive wastewater treatment may be necessary.

The LACSD does not anticipate any issues with recycled water quality. The LACSD constantly monitors the water quality of the recycled water sold to end users to ensure that it meets all standards. Furthermore, the stringent salinity requirements, and other water quality standards for potable water being delivered to customers further reduces the likelihood that poor quality recycled water will be delivered. The City of Paramount does not anticipate having any issues with recycled water quality that would be harmful, or in any way cause an increase in potable water use.

Table 5.3.1
Water Quality — Current and Projected Water Supply Impacts

Water source	Description of condition	2010	2015	2020	2025	2030
Central Basin	No water quality issues expected	0	0	0	0	0
CBMWD Potable Water	No water quality issues expected	0	0	0	0	0
CBMWD Recycled Water	No water quality issues expected	0	0	0	0	0

Units: acre-feet per year

5.4 Drought Planning

Urban Water Management Planning Act Requirement:

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.

All potable water supplies are pumped from the Central Basin or provided through the CBMWD as part of MWD and the SWP. The groundwater supply is available based on the ability of the City of Paramount to pump the fully allotted amount through the Central Basin adjudication (the City is expected to be able to pump its fully allotted rights of 5,883 AF by 2015). Since the additional purchased supply is not directly obtained by the City, the determination of reliability is largely be based on CBMWD and MWD analyses to provide a consistent water supply to the City during normal, single dry, and multiple dry years. During these years, the City of Paramount is committed to reducing water demand during times of drought in order to conserve water and improve reliability for future water supplies.

Table 5.4.1 identifies the normal, single dry, and multiple dry water years chosen to represent the water supply from CBMWD:

Table 5.4.1
Basis of Water Year Data

Water Year Type	Base Year(s)
Average Water Year	2010
Single-Dry Water Year	2006
Multiple-Dry Water Years	2006-2008

During these years, the percent of supply that was available to the public for use is summarized in Table 5.4.2. Table 5.4.2 represents the total water available through the CBMWD, as reported in the 2010 Urban Water Management Plan.

Table 5.4.2
Supply Reliability — Historic Conditions

Average / Normal Water Year	Single Dry Water Year	Multiple Dry Water Years		
		Year 1	Year 2	Year 3
268,173	270,360	270,360	261,100	254,150
Percent of Average/Normal Year:	101%	101%	97%	95%

In the single dry water year, demand increased and therefore more water was supplied to meet the demand due to increased temperatures, evapotranspiration rates, and a longer growing season. Throughout these years, the supply available from the Central Basin was assumed to remain consistent, regardless of the water years. Although this results in using more water than is naturally replenished during these years, water reserves are available to provide a reliable source of water in the event of another single dry year with similar hydrology. The only varying source is water available through the MWD. However, the MWD 2010 UWMP estimated that it would be able to meet all demands during normal, single dry, and multiple dry year scenarios in the next 25 years.

Urban Water Management Planning Act Requirement:

10632(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.

In the event of a water supply shortage, the City has in place several stages of action to take. These are listed above in the Water Shortage Contingency Plan Section.

Urban Water Management Planning Act Requirement:

10632(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.

The table on the following page shows the minimum water supply available during the next three years with a multiple year hydrology as defined by the 2006-2008 water years. It can be seen that water supplies for the next three years with multiple dry year hydrology are expected to be able to meet 100% of the demand for the City as identified by its water suppliers, CBMWD and MWD. Table 5.4.3 shows the supplies available to the City of Paramount in the event that the next three years had the same hydrologic conditions as the multiple dry year scenario identified. It should be noted that this assumes that the new Well No. 15 will be online and available to begin pumping the fully allotted rights by the City.

Table 5.4.3 Supply Reliability — Current Water Sources				
Water supply sources	**Average / Normal Water Year Supply**	**Multiple Dry Water Year (2006)**	**Multiple Dry Water Year (2007)**	**Multiple Dry Water Year (2008)**
		Year 2011	**Year 2012**	**Year 2013**
Central Basin Groundwater	5,883	5,883	5,883	5,883
CBMWD Wholesale Water	3,100	3,140	2,724	2,435
Percent of normal year:	100%	100%	96%	93%

Units: acre-feet per year

Although the supplies are great enough to be met for the next three years in the event of a drought, continuing to consume such quantities from the water supply may outweigh the water replenished through natural processes in the distribution chain. This could potentially result negative consequences, including overdraft conditions of the groundwater basins. To prevent this from happening, the City of Paramount is among the many water retailers in California committed to preserving water supplies. In the event of a single dry or multiple dry year scenarios, the City would reduce demand by implementing the water conservation measures described above in the Water Shortage Contingency Plan Section. This, in conjunction with the demand management measures in place, emphasizes the importance of water conservation to the City of Paramount and its water customers.

Table 5.4.3 does not identify the source of recycled water as a potable water source. Recycled water is accounted for in the following tables to compare the supply and demand during normal, single dry, and multiple dry year scenarios. The data regarding total demand and supply, including recycled water, is documented in Chapters 3 and 4, respectively.

Urban Water Management Planning Act Requirement:

10632(i) A mechanism for determining actual reductions in water use pursuant to the urban water shortage contingency analysis.

The City can monitor production at its wells to determine the amount of water being sent into the system. In addition, individual meters on water customers indicate the total water being sold. For water received through CBMWD, monthly deliveries can be monitored as well. In addition,

water meters on customer accounts can indicate the total water demand during water shortages. Trends in this demand can indicate impacts of water use reduction measures. Under normal water supply conditions, potable water production figures are recorded daily. Totals are logged, reported monthly and incorporated into the water supply report.

During a water shortage (Stages I, II, or III) monitoring is increased. Daily production figures are reported to the responsible parties to ensure that water conservation goals are being met. As the severity of the drought increases, the number of parties responsible for the monitoring and enforcement of water distribution figures may increase to include the General Manager and Water Supervisor.

Urban Water Management Planning Act Requirement:

10635(a) Every urban water management supplier shall include, as part of its urban water management plan, an assessment of the reliability of it 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 date from state, regional, or local agency population projections within the service area of the urban water supplier.

The following tables, 5.4.4 through 5.4.6, compare the total supply and demand as identified in Chapters 3 and 4 for normal, single dry, and multiple dry years. It can be seen that the supply available to the City, as estimated based on groundwater pumping and as provided in the CBMWD and MWD 2010 Urban Water Management Plans, is greater than the total demand, including during multiple dry year scenarios. However, the City of Paramount is still committed to water conservation in single dry and multiple dry years to help preserve precious water reserves and supplies.

The data provided for the normal, single dry, and multiple dry year scenarios is provided in the supply portion of the CBMWD 2010 Urban Water Management Plan. The plan identifies that during a single dry year scenario, demand may increase by approximately 2% over a normal year. CBMWD identified that supply was sufficient in a single dry year to meet this increased demand. During a multiple dry year, it was identified that the demand may increase by

anywhere from 2% in the first year to 5% in the third year. However, these demand increases may not actually be seen during multiple dry year scenarios due to conservation measures that will be enacted. This potentially will leave the demand consistent with a normal water year. Conservation measures may offset the predicted increase in demand over a multiple dry year period. CBMWD did not identify any reliability issues with delivering water during a single or multiple dry year period, and identified that supply would be sufficient to meet demand.

Table 5.4.4
Supply and Demand Comparison — Normal Year

	2015	2020	2025	2030
Supply Totals	9,346	9,454	9,563	9,673
Demand Totals	7,815	7,800	7,990	8,185
Difference	1,531	1,654	1,573	1,488
Difference as % Of Supply	16%	17%	16%	15%
Difference as % Of Demand	20%	21%	20%	18%

Units are in acre-feet per year.

During a normal year, supply as identified by CBMWD will exceed the demand projected from Chapter 3.

Table 5.4.5
Supply and Demand Comparison — Single Dry Year

	2015	2020	2025	2030
Supply Totals	9,533	9,643	9,754	9,866
Demand Totals	7,893	7,878	8,070	8,267
Difference	1,640	1,765	1,684	1,600
Difference as % of Supply	17%	18%	17%	16%
Difference as % of Demand	21%	22%	21%	19%

Units are in acre-feet per year.

The demand in a single dry year was estimated to increase by approximately 2%. During a single dry year, CBMWD and the City of Paramount expect to have supplies available that exceed this demand increase. In the event of a water shortage, measures outlined in the Water Shortage Contingency Plan will be implemented to prevent overdraft conditions, as well as preserve the water supply.

Table 5.4.6 Supply and Demand Comparison — Multiple Dry-Year Events					
		2015	**2020**	**2025**	**2030**
Multiple-dry year first year supply	**Supply Totals**	9,533	9,643	9,754	9,866
	Demand Totals	7,893	7,878	8,070	8,267
	Difference	1,640	1,765	1,684	1,600
	Difference as % of Supply	17%	18%	17%	16%
	Difference as % of Demand	21%	22%	21%	19%
Multiple-dry year second year supply	**Supply Totals**	8,972	9,076	9,180	9,286
	Demand Totals	8,169	8,154	8,352	8,556
	Difference	803	922	828	730
	Difference as % of Supply	9%	10%	9%	8%
	Difference as % of Demand	10%	11%	10%	9%
Multiple-dry year third year supply	**Supply Totals**	8,692	8,792	8,894	8,996
	Demand Totals	8,206	8,190	8,390	8,594
	Difference	486	602	504	402
	Difference as % of Supply	6%	7%	6%	4%
	Difference as % of Demand	6%	7%	6%	5%

Units are in acre-feet per year.

CBMWD anticipated a supply that could exceed water demand in a multiple dry year period. However, in stages of more severe water shortages, the City may ration supplies as necessary, and implement water conservation measures resulting in up to a 50% water use reduction. This will be performed in situations when water supply is projected to reach dangerously low levels, and an emergency situation is imminent.

6 DEMAND MANAGEMENT MEASURES

6.1 DEMAND MANAGEMENT MEASURE IMPLEMENTATION

Urban Water Management Planning Act Requirement:

10631 (f) (1) and (2)(Describe and provide a schedule of implementation for) 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

10631 (f)(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

10631 (f)(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

10631 (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

The City of Paramount works with the Central Basin Municipal Water District (CBMWD) to implement water conservation techniques to reduce the total demand of water throughout the City and CBMWD. Together, the City and CBMWD implement the 13 required Demand Management Measures (DMMs) within the City (DMM 10 is not required as the City is not a wholesale agency). CBMWD was an early signatory to the California Urban Water Conservation Council (CUWCC) Memorandum of Understanding (MOU) regarding Urban Water Conservation in California. CUWCC represents a diverse group of water supply agencies dedicated to establishing guidelines toward implementing conservation measures and managing supply demands. The following table summarizes the BMPs/DMMs:

Table 6.1.1
CUWCC BMP Organization and Names (2009 MOU) and UWMP DMMs

Type	Category	BMP #	BMP Name	DMM #	DMM Name
Foundational	Operations Practices	1.1.1	Conservation Coordinator	12	Water Conservation Coordinator
		1.1.2	Water Waste Prevention	13	Water Waste Prohibition
		1.1.3	Wholesale Agency Assistance Programs	10	Wholesale Agency Programs
		1.2	Water Loss Control	3	System Water Audits, Leak Detection, and Repair

Table 6.1.1
CUWCC BMP Organization and Names (2009 MOU) and UWMP DMMs

Type	Category	BMP #	BMP Name	DMM #	DMM Name
		1.3	Metering with Commodity Rates for All New Connections and Retrofit of Existing Connections	4	Metering with Commodity Rates for All New Connections and Retrofit of Existing Connections
		1.4	Retail Conservation Pricing	11	Conservation Pricing
	Education Programs	2.1	Public Information Programs	7	Public Information Programs
		2.2	School Education Programs	8	School Education Programs
Programmatic	Residential	3.1	Residential Assistance Program	1	Water Survey Programs for Single-Family Residential and Multi-Family Residential Customers
				2	Residential Plumbing Retrofit
		3.2	Landscape Water Survey	1	Water Survey Programs for Single-Family Residential and Multifamily Residential Customers
		3.3	High-Efficiency Clothes Washing Machine, Financial Incentive Programs	6	High-Efficiency Washing Machine Rebate Programs

Table 6.1.1
CUWCC BMP Organization and Names (2009 MOU) and UWMP DMMs

Type	Category	BMP #	BMP Name	DMM #	DMM Name
		3.4	WaterSense Specification (WSS) toilets	14	Residential Ultra-Low-Flush Toilet Replacement Programs
	Commercial, Industrial, and Institutional	4	Commercial, Industrial, and Institutional	9	Conservation Programs for Commercial, Industrial, and Institutional Accounts
	Landscape	5	Landscape	5	Large Landscape Conservation Programs and Incentives

6.2 OPERATIONS PRACTICES

6.2.1 Water Conservation Coordinator (DMM 12)

As a member agency of CBMWD, the City takes advantage of the CBMWD's water conservation coordinator that works with cities and water agencies to enhance their conservation efforts. This close collaboration between CBMWD's conservation coordinator and City staff provides for a successful execution of the demand management measures. In addition, CBMWD's conservation coordinator represents all member agencies at regional and statewide workshops and organizations. Conservation coordination within the City are an auxiliary responsibility of existing staff. Additionally, Central Basin's conservation coordinator also seeks Federal, State, and local funding to develop new programs that member agencies, such as the City of Paramount, can partner on and provide additional benefits to customers.

6.2.2 Water Waste Prohibition (DMM 13)

The City has not chosen at this time to adopt a water waste prohibition ordinance. However, in order to further promote water conservation, the City has adopted a Water-Efficient Landscape Provision Ordinance to avoid excessive landscape water demands and waste. See Appendix I: Ordinance 825.

6.2.3 Wholesale Agency Programs (DMM 10)

This DMM is not required as the City is not a wholesale agency.

6.2.4 System Water Audits, Leak Detection, and Repair (DMM 3)

The City completes an annual pre-screening system audit of its potable water system to determine the need for a full-scale system audit. The system audit is performed by tracking the actual metered water use, which can be compared to total well production. Production is tracked monthly and reviewed annually to determine if the system exhibits significant losses.

Using 2010 data, verifiable use as a percent of total production is calculated comparing actual metered sales (6,177 AF) against total supply into the system as measured at the wellhead meters (6,779 AF). Based upon this data, the City has approximately 8% loss in their system, which did not require the implementation of system audits.

6.2.5 Metering with Commodity Rates for All New Connections and Retrofit of Existing Connections (DMM 4)

Part of DMM 4 includes the retrofitting of existing metered connections. The City estimates that there are no unmetered connections within the City limits since there has never been a flat rate charged for water use within any sector. Therefore, no program for retrofitting existing unmetered connections is identified. The City currently bills its retail customers according to meter consumption. The City requires meters for all new connections and bills by volume-of-use.

6.2.6 Conservation Pricing (DMM 11)

The City purchases imported water from CBMWD at a two-tiered rate structure. This rate structure promotes water conservation and regional supply reliability. The City is committed to a voluntary purchase agreement with CBMWD which outlines the amount of water to be purchased at a Tier 1 rate and the cost of the Tier 2 rate for water purchases that exceed the Tier 1 allotment.

In order to further promote water conservation and supply reliability, the City has adopted a similar rate structure for its customers. The City utilizes a two-tier structure for each customer account category. The City's water rate schedule is updated on a yearly basis. See Appendix J: Water Rate Structure.

6.3 EDUCATION PROGRAMS

6.3.1 Public Information Programs (DMM 7)

The City and CBMWD work together to raise public awareness regarding many different issues regarding water and water supply. These issues include information pertaining to runoff pollution, water quality, and water conservation. The City and CBMWD have several ways of educating the public about these broad topics that ultimately pertain to water use by the City customers.

The City of Paramount provides public information via city-wide events, flyers, and direct mailings to customers. Additionally, customers can attend regular meetings of the Public Works Commission to receive information about the water system.

Through its membership in CBMWD, the City is active in the California Water Awareness Campaign (CWAC), which is an association formed several years ago to coordinate efforts throughout the state during "May is Water Awareness Month". With this effort, water agencies throughout the state, large and small, can tap into a large pool of knowledge and materials to promote a water awareness message not only in May, but throughout the year.

The table below shows the implementation schedule and actual/projected expenditures of certain of the above-listed conservation efforts through 2015.

Table 6.3.1
Public Information Actual Expenditures

Program	2006	2007	2008	2009	2010
Bill Inserts/Newsletters/Brochures	X	X	X	X	X
Actual Expenditures	**$1,500**	**$1,500**	**$1,500**	**$1,500**	**$1,500**

Table 6.3.2 Public Information Projected Expenditures					
Program	**2011**	**2012**	**2013**	**2014**	**2015**
Bill Inserts/Newsletters/Brochures	X	X	X	X	X
Projected Expenditures	**$1,500**	**$1,500**	**$1,500**	**$1,500**	**$1,500**

6.3.2 School Education Programs (DMM 8)

Water and environmental education are critical components of an effective outreach strategy. CBMWD offers a variety of elementary through high school programs free of charge to all schools within the City's service area. The following list shows the educational programs offered by CBMWD:

- Water Squad Investigations (Grades 4-12)
- Water Wanderings (Grades 4-5)
- Think Watershed (Grades 4-6)
- Think Earth! It's Magic (Grades K-5)
- Think Water! It's Magic (After School Program for Grades K-5)
- "Water is Life" Poster Contest (Grades 4-8)
- Waterlogged (Grades 9-12)
- Sewer Science (Grades 9-12)
- Conservation Connection: Water & Energy in Southern California (Grades 5-8)
- Water for the City: Southern California Urban Water Cycle (Grades 4-8)

6.4 RESIDENTIAL PROGRAMS

6.4.1 Water Survey Programs for Residential Customers (DMM 1)

Residential surveys evaluate all the water-using devices inside the home such as toilets, faucets, showerheads, etc. A trained surveyor checks for leaks and tests the flows indoor and

outdoor. Once the survey is completed, recommendations are provided for retrofitting certain water use devices, and educational materials are also supplied to the resident. Residential surveys provide the City with a great opportunity to provide their customers with a program that offers customer outreach opportunities. Currently, surveys are completed on an as needed basis.

6.4.2 Residential Plumbing Retrofit (DMM 2)

Residential plumbing retrofit recommends the distribution and retrofit of low-flow showerheads, Ultra-low flow toilets, and faucet aerators, as well as the adoption of enforceable ordinances.

The City and CBMWD distributes retrofit equipment, such as low-flow showerheads, at city-wide events such as the annual Safety Fair. Availability of conservation devices are also promoted within City publications. In addition, these items are distributed to any resident who makes a request.

6.4.3 High Efficiency Washing Machine Rebate Programs (DMM 6)

As a member agency of CBMWD, the City participates in CBMWD's High-Efficiency Clothes Washer (HECW) Program. This program has exceeded all expectations and continues to be one of CBMWD's more successful programs. When the HECWs first hit the market, the devices were quite expensive but market demand has helped to drive the price down. The new HECWs cost twice as much as regular inefficient models, but by providing a $100 rebate (along with other utility/store incentives); consumers are choosing to purchase the new HECWs. The HECWs also have other benefits; not only do they save 50% water but also save 60% electricity and use less detergent. A high-efficiency washer will save approximately 6,500 gallons of water per year for an average household.

Table 6.4.2 illustrates the number of rebates distributed to City of Paramount customers over the past three years. Approximately 104 washing machine rebates were given to residents of the City of Paramount since 2005.

Table 6.4.2
High-Efficiency Washing Machine Rebate Summary

Year	FY 05-06	FY 06-07	FY 07-08	FY 08-09	FY 09-10
Rebates Given	11	19	33	33	8

6.4.4 Residential ULFT Replacement Programs (DMM 14)

The City participates in CBMWD's Ultra-Low Flush Toilet (ULFT) Program. Technology standards have replaced the 1.6 gpf ULFT with High-Efficiency 1.28 gpf Toilets (HET). Today, CBMWD only distributes HETs.

HETs have been a key element in the conservation success CBMWD has experienced over the years. Free HET distribution events have provided thousands of free toilets to local residents throughout CBMWD's service area. Since 2005, CBMWD has completed more than 5,000 HET installations in single family, multifamily and commercial, industrial and institutional facilities throughout CBMWD's service area. CBMWD receives requests to participate in various local partnerships to provide disadvantaged residents with HETs. CBMWD's service area is home to many disadvantaged residents and the need for free, water conserving toilets remains high. Given the current economic state, the conservation coordinator for CBMWD is focusing attention on securing additional sources of funding to make HET programs possible. Since 2005, 905 ULFTs or HETs were installed through this program in the City of Paramount.

Table 6.4.3

High-Efficiency Toilet Rebate Summary

Year	FY 05-06	FY 06-07	FY 07-08	FY 08-09	FY 09-10
Rebates Given	14	55	0	141	695

6.5 COMMERCIAL, INDUSTRIAL, AND INSTITUTIONAL PROGRAMS

6.5.1 Commercial, Industrial, and Institutional Programs (DMM 9)

The City participates in a region-wide CII rebate program developed by CBMWD in partnership with MWD. CBMWD participates in MWD's region-wide commercial "Save A Buck" rebate program which provides water conservation devices to be utilized in commercial, industrial and institutional facilities. These rebates are promoted to the businesses, schools and facilities throughout the City's service area. Rebates are offered for commercial clothes washers, waterbrooms, cooling tower conductivity controllers, pre-rinse spray nozzles, x-ray machine recirculation devices and commercial toilets and urinals.

A total of six pre-rinse spray nozzle valves have been installed in the food services sector customers in the City of Paramount. These new nozzles use 1.6 gallons per minute (gpm) compared to 2 to 6 gpm valves. These valves conserve water and reduce heating costs and waste-water discharge.

In 2003, Central Basin applied for and received a $780,000 Proposition 13 grant for the purchase and installation of 2,600 Waterfree Urinals. Waterfree urinals can save an average of 40,000 gallons of water per year. A total of 134 of these Waterfree urinals have been installed in the City of Paramount since the program's inception.

6.6 LANDSCAPE PROGRAMS

6.6.1 Large Landscape Conservation Programs and Incentives (DMM 5)

Despite the urbanization of Southern California, the region is dotted with large turf areas that require year-round irrigation to keep them green. Some of these areas within the include parks, schools, and street medians. The City is working along with CBMWD to reduce demand for water for irrigation purposes by providing recycled water in its service area. In addition to the MWD's region-wide "SoCal Water$mart" and "Save A Buck" rebate programs, CBMWD also offers various large landscape conservation programs including:

- A District-wide large landscape managed irrigation program, incorporating maintenance, monitoring and tracking of individual property water savings
- Federal and State grants providing over 2,000 smart controllers to residential and commercial customers
- A city partnership program to install Smart Irrigation Controllers in parks and street medians
- A commercial landscape research grant to improve water use efficiency at schools, parks and open public spaces.

Most of the large landscape areas within the City are already taking advantage of recycled water, which helps to conserve potable water.

7 CLIMATE CHANGE

7.1 INTRODUCTION

Although not specifically included in the UWMP Act, the City of Paramount has opted to address the potential impacts of climate change on the water system. It is noted in the *Guidebook to Assist Urban Water Suppliers to Prepare a 2010 Urban Water Management Plan* that "inclusion of potential climate change impacts in a water supply planning document is consistent with other water supply programs and environmental requirements being implemented in California."

Due to the fact that this section does not require specific information or topics to be discussed, the following topics will be covered:

- General Overview of Climate Change
- Effects of Climate Change
- Minimizing the Effects of Climate Change

Each of these sections will discuss the long term impact (outside of the 20 year scope identified in the prior sections).

7.2 CLIMATE CHANGE OVERVIEW

Although there is still some debate about the causes and effects of climate change, and even whether or not it exists, the general consensus among the scientific community is that climate change is a threat to our global climate. Climate change is a major environmental threat that is expected to result in a multitude of long-term weather changes and short term weather events. The specific impacts of climate change vary greatly by region and current climate. Due to the unpredictable nature of climate change, general statements will be made in accordance with recent observations and predictions made by climate scientists.

It is generally accepted that the leading factor resulting in climate change is the emissions of greenhouse gases (GHGs). GHGs include nitrous oxides, chlorofluorocarbons, carbon oxides, and methane, among many others. Due to the large amounts of carbon dioxide emitted in electricity production by coal and transportation based on combustion of petroleum, effects and

trends of carbon dioxide levels in the atmosphere on climate characteristics are studied heavily.

An increase in GHGs is expected to lead to climate change through a process called the Greenhouse Gas Effect. As radiation from the sun is emitted to earth, a portion of it is absorbed; the rest bounces off the surface and, in a natural process, is emitted to space. The Greenhouse gas effect describes the process where the radiation that would typically be emitted back to space is reabsorbed in the atmosphere by the chemicals known as Greenhouse Gases. When the radiation is reabsorbed, it is consequently reemitted back to the earth. This additional radiation that would have otherwise been emitted to space is generally accepted as the source of what we know as climate change. The GHGs emitted by the population serve as a "blanket" that holds in the suns radiation, and ultimately causes heat to become trapped with long term impacts on the climate.

7.3 EFFECTS OF CLIMATE CHANGE

Climate change is expected to have a wide variety of both short and long term impacts. These impacts will vary greatly based on geographical location and current climate. Some areas are expected to see decreases in average temperature and an increase in rainfall, while others are expected to experience the opposite. There is some debate about where the State of California will fall in these patterns; however it has been observed that average temperatures are increasing and weather events are becoming more intense. The Department of Water Resources has completed extensive studies on climate change and what impacts it may have on the water supply. Some of the findings about what has been already observed as a possible result of climate change, as well as what is expected in the coming years is summarized below.

Wet Weather Events

Two extremes are expected, and have been observed, when looking at the possibility of climate change. The first of these extremes is the occurrence of wet weather events such as storms and floods. These are expected to increase in both intensity and frequency. This not only impacts the water supply by overwhelming storage, it can impact infrastructure as well. California has a series of natural and manmade flood barriers that serve to protect the population and infrastructure while simultaneously assisting to help store some of the runoff water. However, as floods increase in intensity, due partially to the increased rate of melting snow (a large, natural water source for California's water), flood protection can be overwhelmed.

In addition to floods, severe storms are likely to be an effect of climate change. While these pose similar threats to the water supply and infrastructure as floods by cause large amount of

water flow at one time, they also increase the likelihood of events such as mudslides that are known to cause high property damage and, in some cases, loss of life.

Dry Weather Events

In the long term, dry weather events are likely to have the most impact on the lives of California residents. Droughts are a natural occurrence in the State of California, characterized by short term (approximately 1-3 years) of warmer than average temperatures and reduced rainfall. Droughts have a devastating impact on the water supply reliability. Furthermore, as water storage is continually tapped at a rate higher than water replenishment is available, decreasing availability of a clean source of water becomes a threat. The general populations' lives are directly impacted by these events, requiring normal water use patterns to decrease sharply.

In additional to a reduction in water supply, droughts are also known to cause an increase in water demand due to warmer temperatures and extended growing seasons. These water demands, in addition to a growing population (as summarized in Chapter 3) are likely to cause additional strain on the already dwindling resources.

Decreased Snowpack

Among the effects that a drought is expected to have on the overall water supply, the possibility of decreased Sierra Nevada snowpack is a long term water supply issue. The Sierra Nevada snowpack is the largest water "reservoir" for the State, providing an annual average of 15 million AF of water. The snowpack is released as temperatures increase in the spring and summer months and melt the snow. Climate change affects this process in two ways. First, the snowpack is reduced due to warming temperatures causing less snow to fall. Instead, the precipitation is released as rain, and potentially cannot be captured and stored in reservoirs. Precipitation as water reduces the total stored water as snow in the Sierra Nevada and available to California. The DWR predicts a 25% to 40% decrease in snowpack in the Sierra Nevada by 2050. Furthermore, as temperatures rise, the snow that is stored is released at an accelerated pace. The DWR notes that water infrastructure was designed to handle the predicted the pace of the snowmelt. However, as snowmelt rates increase, water may overwhelm the system and be lost.

Sea level rise

The melting of the ice caps is a strong contributing factor to the increasing level in the rising of the sea level. The immediate consequences of this are recognized at the coastal California cities, where the impacts from flooding and storms are amplified. More significant to the City of Paramount is the possibility of seawater intrusion into the groundwater basins. Seawater intrusion immediately impacts the groundwater quality and increases the need for further water

purification and development of supplies.

Water Quality

Water Quality effects due to climate change are predicted to occur due to two extremes.

Flooding and higher runoff at any given time has been predicted to increase erosion and, therefore, increase the amount of sediment and contaminants in the water supply. This has the potential to increase the strain on water suppliers due to the increased need for water purification.

Droughts and lower runoff have the potential to increase the concentration of chemicals that may be present in water streams. Streams of water collect chemicals that exist in the environment. As water runoff decreases, the same quantities of these chemicals are collected in smaller amounts of water, increasing the overall concentration. As the chemical concentrations rise, the purification requirements rise with each gallon of water, and increase the risk for dangerous fluctuations.

7.4 MINIMIZING THE EFFECTS OF CLIMATE CHANGE

Many of the potential impacts of climate change have already been observed. In addition, models show that current GHG levels will continue amplify the effect of climate change over the next few hundred years, even if all GHG production were to cease today. In order to combat minimize the impacts of climate change, innovative solutions must be developed. These solutions fall within two categories. The first strategy is mitigation. When applying to water suppliers, this is the ability to reduce GHG emissions. The second is adaptation; the strategy of adjusting our water supply system to meet water demands as a result of permanent climate change.

Mitigation

In addressing climate change, mitigation is the effort to increase efficiency and reduce the output of GHGs. Although no individual industry is fully responsible for implementing mitigation efforts in an attempt to eliminate GHG production, each industry can develop its own techniques help reduce the impacts that climate change may have. The common goal throughout the world's population is in regards to mitigation is to eliminate production of GHGs. Currently, this is being done by exploring ways to increase efficiency, decrease demand, and develop alternative and renewable energy sources that will reduce the impact of burning fossil fuels.

For the water distribution sector, mitigation can be done by minimizing the transportation of

water. Water is a dense liquid that requires a substantial amount of energy to move around. Because of this, distribution systems are complicated, and require large pumps. Electrical devices such as these pumps have an associate level of GHG emissions associated with the energy input they require. To mitigate the GHG associated with this, the City of Paramount can minimize the amount of water required for distribution by encouraging demand reduction. Current demand reduction efforts are discussed in Chapter 6. Maximizing the efficiency of the water used not only preserves water supply, but can help in reducing the overall impacts and severity that is expected in the coming years as a result of climate change.

The State of California has taken an initiative in mitigating the long term effects of climate change by adopting Assembly Bill 32 (AB 32). AB 32 establishes a greenhouse gas emissions reduction goal for 2020, identified as reducing total emissions to 1990 levels by 2020. The California Air Resources Board (ARB) has developed specific requirements to help achieve this goal, including direct and required regulations, alternative compliance mechanisms, voluntary actions, and market-based mechanisms such as a cap and trade system.

To assist in meeting the goals of AB 32, Senate Bill 375 (SB 375) was passed in 2008. SB 375 requires the ARB to develop greenhouse gas reduction targets for 2020 and 2035 specifically for passenger vehicles, which are one of the leading greenhouse gas emissions sources in the State of California. Emissions reduction goals will be set for each one of the State's 18 metropolitan planning organizations (MPOs). Additionally, SB 375 sets goals for efficient land use within the MPOs to further reduce greenhouse gas emissions. In order to help meet the requirements of SB 375 and the greenhouse gas reduction goal for AB 32 and SB 375, the City of Paramount intends to comply with the ARB's policies. Currently, the ARB is working to develop policies for reducing passenger vehicle use and efficient land use. Among these policies are:

- Transit Services
- Bicycle and Pedestrian Strategies
- Telecommuting
- Traffic Incident Clearance Programs
- Voluntary Travel Behavior Change Programs
- Residential Density
- Regional Accessibility
- Job-Housing Balance

More information on these policies, as well as additional policies and updated information about the progress of ARB's efforts in meeting the requirements of AB 32 and SB 375 can be found on the ARB website.

Adaptation

Adaptation is the strategy employed to adjust to the environmental impacts of climate change. Although not a desirable solution, this is necessary as the impacts of climate change are already beginning to take effect. Adaptation can help the population continue to thrive and minimize the potential negative consequences that result from climate change.

General adaptation strategies to increase water reliability have been identified by the State of California. These include adjusting designed flow rates of SWP infrastructure to ensure that all water is captured and able to be utilized with increased snowmelt and more intense precipitation periods.

Other adaptation strategies proposed by the State of California that may help in increasing the reliability of supply to the City of Paramount regardless of climate change include:

- Fully developing Integrated Regional Water Management planning to evaluate supply and demand, and encourage water districts to work together to ensure that a broad water supply is available, increasing water reliability.
- Promoting integrated flood management to decrease the impacts of floods and utilizing natural flood plains where available. Adapting to climate change in response to the threat of floods increases the economic and social wellbeing of the State, especially those in high risk zones.
- Assisting to sustain ecosystems which provide clean and reliable water. Maintaining diverse ecosystems and preventing the potential destruction of these water sources will help increase their predictability and reliability.
- Focusing on impacts at the Bay-Delta. The Bay-Delta is the source of water for a majority of Californians. Ensuring that a healthy ecosystem and that water quality at the Bay-Delta are maintained despite the effects of climate change is imperative towards continuing to use this as a source of water.
- Planning for rises in the sea level. As sea water intrusion to water resources becomes a threat to water quality, establishing a reliable system of levees and flood management programs is necessary to maintain water supplies and ensure the safety of the State's population.

A PUBLIC NOTIFICATION LETTER

DARYL HOFMEYER
Mayor

PEGGY LEMONS
Vice Mayor

GENE DANIELS
Councilmember

TOM HANSEN
Councilmember

DIANE J. MARTINEZ
Councilmember

March 22, 2011

Long Beach WD
Attn: Matthew Lyons, Director
1800 E. Wardlow Rd.
Long Beach, CA 90807

RE: City of Paramount 2010 Urban Water Management Plan Update

Dear Mr. Lyons:

California's Urban Water Management Planning Act requires the update of Urban Water Management Plans (UWMP) every five years. (Additional information regarding UWMPs can found at http://www.water.ca.gov/urbanwatermanagement/). Accordingly, the City of Paramount is in the process of preparing its 2010 UWMP.

The UWMP outlines how the City will meet current and projected water demands within its service area, with emphasis on water conservation and the continued use of groundwater and purchased water to provide its customers a reliable, high quality supply of water. It also outlines the strategy for meeting the interim (2015) and final (2020) urban water use reduction targets, as required by Senate Bill X7-7. The 2010 UWMP will form the basis of analysis for available water supplies relative to urban planning for potential developments.

The Draft 2010 UWMP is expected to be available for public review and comment in the second quarter of 2011. There will be a public review period and a public hearing to receive comments on the draft document prior to consideration by the City Council.

In the interim the City is accepting suggested strategies it should consider to meet current and future customer needs. Comments on development of the Draft 2010 UWMP should be directed to Sarah Ho at sho@paramountcity.com or 562-220-2157.

CITY OF PARAMOUNT

Christopher S. Cash
Public Works Director

16400 Colorado Avenue • Paramount, CA 90723-5012 • Ph: 562-220-2000 • Fax: 562-630-6731
www.paramountcity.com

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March 22, 2011

Metropolitan Water District
700 North Alameda St.
Los Angeles, CA 90012

RE: City of Paramount 2010 Urban Water Management Plan Update

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March 22, 2011

Central Basin Municipal Water District
Attn: David Hill, Planning Manager
6252 Telegraph Road
Commerce, CA 90040

RE: City of Paramount 2010 Urban Water Management Plan Update

Dear Mr. Hill:

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March 22, 2011

LA County Kenneth Hall of Administration
500 W. Temple St.
Los Angeles, CA 90012

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www.paramountcity.com

B UWMP ADOPTION RESOLUTION

C LOS ANGELES GATEWAY REGIONAL ALLIANCE DOCUMENTATION

Los Angeles Gateway Region

Integrated Regional Water Management
Joint Powers Authority
16401 Paramount Blvd., Paramount, CA 90723
562-663-6850 phone; 562-634-8216 fax

Christopher Cash
Board Chair
Paramount

Adriana Figueroa
Vice-Chair
Norwalk

John Oskoui
Secretary-Treasurer
Downey

Kevin Wattier
Chair Emeritus
Long Beach Water Department

John Oropeza
Bell Gardens

Deborah Chankin
Bellflower

Art Aguilar
Central Basin
Municipal Water District

Vince Brar
Cerritos

Gina Nila
Commerce

Jim Glancy
Lakewood

Mark Christoffels
Long Beach

G. Daniel Ojeda
Lynwood

Art Cervantes
Pico Rivera

Don Jensen
Santa Fe Springs

Charlie Honeycutt
Signal Hill

William DeWitt
South Gate

Kevin Wilson
Vernon

David Pelser
Whittier

Grace J. Kast
Executive Officer

Steve Dorsey
General Counsel
Richards Watson Gershon

June 15, 2011

20x2020 Regional Alliance Members:
Bellflower-Somerset Mutual Water Company; Bell Gardens, Cerritos, Downey, Huntington Park, Lakewood, Long Beach, Lynwood, Norwalk, Paramount, Pico Rivera, Pico Water District, Santa Fe Springs, Signal Hill, South Gate, Vernon, Whittier

Dear Regional Alliance Member:

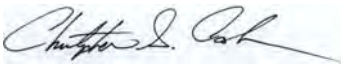
On Thursday, June 9, 2011, the Los Angeles Gateway Region Integrated Regional Water Management Authority (Gateway Authority) adopted the Gateway Regional Water Conservation Alliance Report. The methodologies adopted in the report reflect the Department of Water Resources, Methodology 9-Option 1 for calculating the 2020 Target and 2015 Interim Target for the Gateway Regional Alliance.

Final copies of the report will be sent to members by early July 2011.

If you have any questions, please do not hesitate to call Ms. Grace J. Kast, Executive Officer of the Gateway Authority at 562-663-6850 or gjkast64@gmail.com.

Thank you.

Sincerely,



Christopher Cash, Chair
Gateway Authority

Gateway Regional Water Conservation Alliance Report

Los Angeles Gateway Region Integrated Regional Water Management Authority

June 2011

Gateway Regional Water Conservation Alliance Report

Los Angeles Gateway Region Integrated Regional Water Management Authority

June 2011

1 Introduction

The Senate Bill X7-7 (SBX7-7), the Water Conservation Act of 2009 (Act) was signed into law November 2009. This legislation set a goal of achieving a 20 percent statewide reduction in urban per capita water use, and requires urban retail water suppliers to set 2020 Urban Water Use Targets to meet that goal. Commonly referred to as the 20 by 2020 plan The Act identifies the methodologies, water use targets and reporting requirements that apply to urban water suppliers. It directed the California Department of Water Resources (DWR) to develop technical methodologies and criteria to ensure the consistent implementation of the Act, and to provide guidance to urban retail water suppliers in developing baseline water use and compliance water use targets.

The Act requires that urban retail water suppliers who have either 3000 or more connections or provide 3000 acre-feet or more of water per year to their customers, develop Per Capita Urban Water Use Targets for 2020 in order to qualify for state grants and loans. Each urban retail water supplier must include the following information in their Urban Water Management Plans (UWMPs), beginning in their submittal for 2010:

- Baseline Daily Per Capita Water Use (Baseline)
- 2020 Urban Water Use Target (2020 Target)
- 2015 Interim Urban Water Use Target (2015 Interim Target)

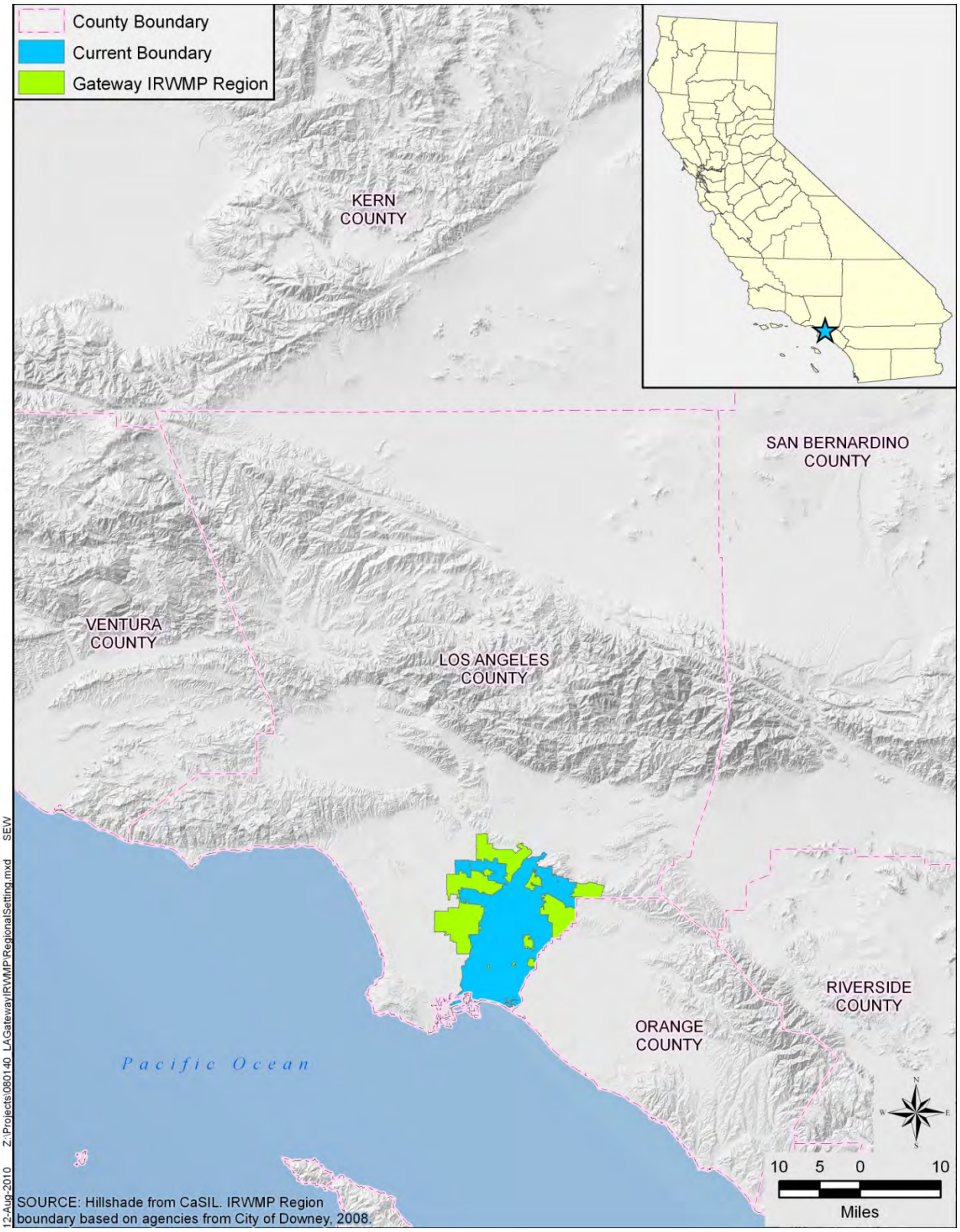
According to Sections 10608.20(a)(1) and 10608.28 of the California Water Code, urban retail water suppliers may plan, comply, and report the above information on a regional basis, an individual basis, or both.

The Gateway Cities formed the Los Angeles Gateway Integrated Water Management Authority (Gateway Authority) to develop a detailed integrated regional water management plan specifically for the Gateway area and to assist the area in other water related projects. The Gateway Authority is an official joint powers authority (JPA) under California law. There are currently 19 entities signatory to the JPA. They are actively engaging in both stakeholder and public outreach programs to expand JPA membership. The Gateway Region is located in southeast Los Angeles County, see Figure 1.

As most urban water retailers in the Gateway Region are signatories to the Gateway Authority, it is a logical extension of regional planning efforts for the Authority to comply with the reporting requirements of SBX7-7 on a regional basis.

If complying on a regional basis, a letter must be submitted to DWR stating that a Regional Alliance has been formed. The alliance members must sign an agreement committing to their participation and to meeting the 2015 interim and 2020 Urban Water Use Targets. Each board must also submit a resolution binding their agency to that agreement. Regional 2020 Targets and 2015 Interim Targets must also be included in each Regional Alliance member's Urban Water Management Plan.

Figure 1. Gateway Authority Location



If a Regional Alliance meets its regional target, then all suppliers in the alliance will be deemed compliant. If a Regional Alliance fails to meet its regional target, water suppliers in the Alliance that meet their individual targets will be deemed compliant. Water suppliers in alliances that meet neither their individual target nor their regional target will be deemed non-compliant. In general, urban water suppliers that use less than 100 gallons per capita per day are exempt from setting compliance targets. An agency that has a low per capita water use helps lower the target for the region, but can still use its individually calculated target.

The participating agencies within the Gateway Region formed a regional alliance. Copies of the draft Letter Agreement and draft resolution can be found in Appendix C.

One goal of the Gateway Regional Alliance is to provide flexibility for the cities and water agencies within the Gateway Region to comply with the requirements of SBX7-7. By enabling the cities and water agencies in the area to plan, comply, and report either regionally or independently, the Gateway Regional Alliance improves the likelihood that those cities and water agencies will qualify for grant funds. A second, long-term goal is for the participating agencies to take a regional approach to water conservation and encourage further cooperation between the participating agencies.

2 Outreach and Participation

2.1 Regional Alliance

A total of 24 urban water suppliers (cities, water companies, and water districts) in the Gateway IRWMP area were invited to form the Gateway Regional Alliance. Figure 2 below shows all of the communities located within the Gateway IRWMP area. A contact list was developed and the urban water suppliers in the Gateway IRWMP area were engaged during the early stages of the Gateway Regional Alliance process. A letter, Appendix A, was sent to each of the water supplier representatives, which included an explanation of the goals and objectives of forming the Gateway Regional Alliance and the benefits of planning, reporting, and complying with the Water Conservation Act of 2009. In addition to the letter, an email with requests for specific water use data was sent out to each urban water supplier. The email explained the type of data required for the 20x2020 Compliance calculations, and identified where that data might be found. Follow-up telephone calls were made to encourage participation in the Gateway Regional Alliance as well as provide information about the alliance process in general and to clarify any questions regarding the data requests.

Once agency-specific data was received and processed, the information was sent back to the individual representatives for their review and comment. Comments, if any, were addressed, and the individual data was entered into the database for regional calculations.

Of the 24 urban water suppliers that were contacted, 17 agencies have agreed to participate and will form the Gateway Regional Alliance.

Participating Agencies	
Bellflower-Somerset Mutual Water Company	City of Bell Gardens
City of Cerritos	City of Downey
City of Huntington Park	City of Lakewood
City of Long Beach	City of Lynwood
City of Norwalk	City of Paramount
City of Pico Rivera	Pico Water District
City of Santa Fe Springs	City of Signal Hill
City of South Gate	City of Vernon
City of Whittier	

The remaining urban water suppliers, listed below, chose not to participate because they are not required to submit an UWMP or stated that they would comply with the SBX7-7 requirements individually.

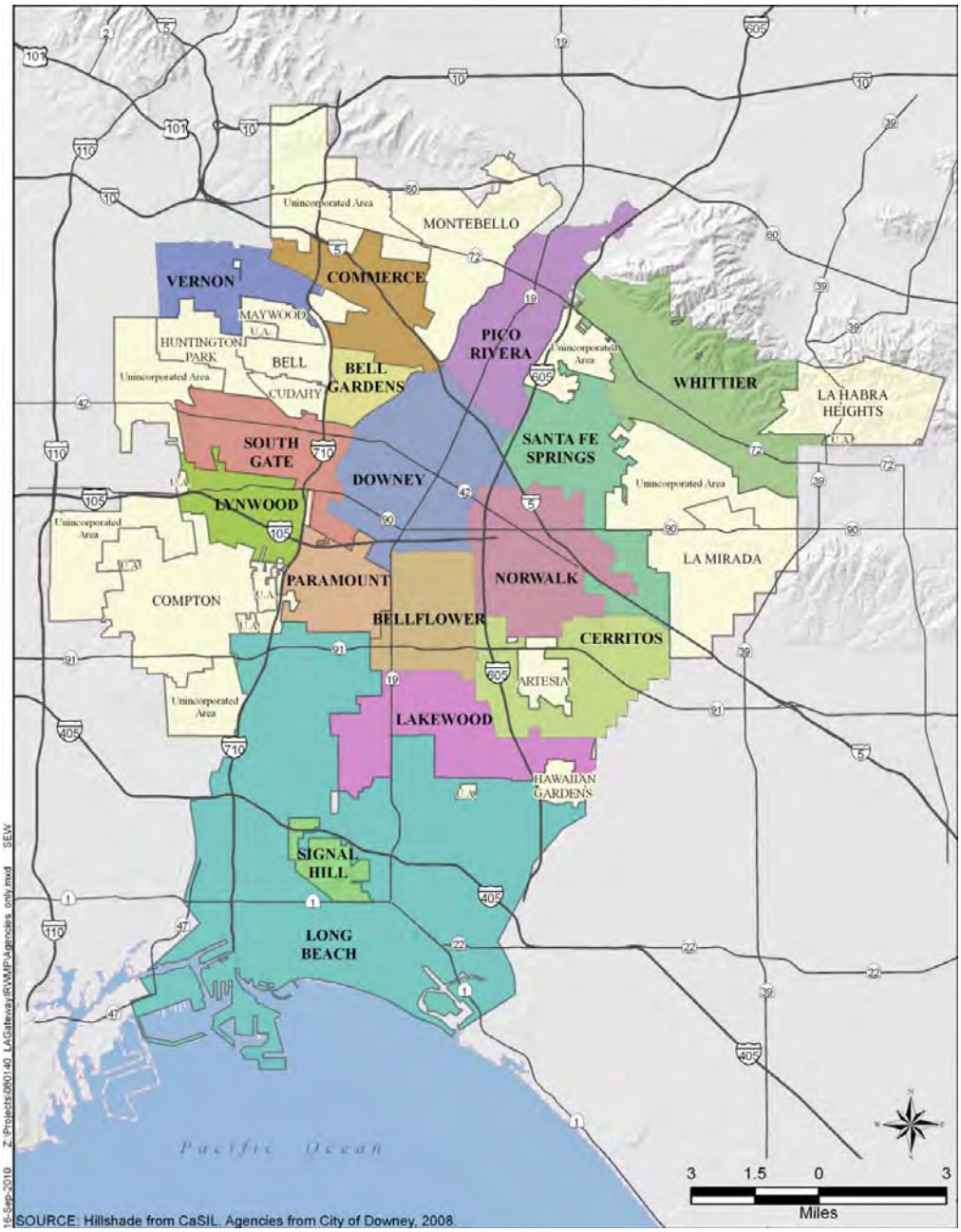
California Water Service Company	Doing own calculations
City of Commerce	UWMP not required
Golden State Water Company	Doing own calculations
La Habra Heights County Water District	UWMP not required
Montebello Land & Water	Doing own calculations
Park Water Company	Doing own calculations
San Gabriel Valley Water Company	Doing own calculations
Suburban Water Systems	Doing own calculations

2.2 Public Hearing

A public hearing was conducted as required by the guidelines to gather any public comments on the formation of a regional alliance for reporting water use targets and on the draft results of the 20x2020 calculations (presented later in this document). The hearing was held on May 13 in conjunction with a regular meeting of the Gateway Authority. The hearing was noticed on May 4 and May 10, 2011 in the Los Angeles Times and the Long Beach Press Telegram, as well as being noticed in the Gateway Authority May 13, 2011 Agenda.

On behalf of the Authority, Gateway Authority's consultant presented the background and results of the 2015 and 2020 water use targets for the region and for each individual participating agency. There were no comments submitted at the public hearing.

Figure 2. Gateway IRWMP Area Map



3 Calculations

The following is an explanation of the elements used to calculate the urban per capita water use for both the 10-Year and the 5-Year Baseline periods:

- **Population Estimate:** The population estimates were obtained from each agency's DWR Public Water System Statistics Reports. Each agency's service area population estimates were developed based on US Census data and California Department of Finance data.
- **Groundwater Extraction:** Groundwater extraction values from each agency were obtained from analysis of DWR Public Water System Statistics Reports. Groundwater used to develop water production wells and groundwater sold to other water utilities was deducted from the overall groundwater extraction volume. This identified the amount of groundwater entering a given agency's distribution system.
- **Purchased Water:** The Alliance participants made numerous water purchases during the selected 10-Year and 5-Year Baseline periods. Additional water was purchased intra-regionally – between suppliers – as well as from the Central Basin Municipal Water District. Purchased water was excluded from the selling agency's calculated water use, but included in the purchasing agency's water use; thus the same water was not counted twice.
- **Distribution System Storage Change:** The net change in the distribution system storage was not included in the gross water calculation.
- **Agricultural Water Use and Process Water:** Agricultural and process water uses were not included in the gross water use calculation.
- **Gross Water Use Before Indirect Recycled Water Use:** Groundwater extractions and purchased potable water were combined to obtain the gross water use.
- **Indirect Water Use Deduction:** The Water Replenishment District of Southern California (WRD) uses recycled water as a supplement to imported water, local water, and natural recharge for replenishment of the groundwater basin. Table A-1 below (Water Replenishment District of Southern California, Engineering Survey and Report, 2011, p. A-6) displays the historical amount of water replenished in the Montebello Forebay Spreading Grounds. The five-year average of recycled water present in the recharged water was estimated for each year in the baseline period. This yearly percentage of recycled water, a 10 percent "in-basin loss," and a 3 percent "distribution system loss," were excluded from the groundwater extraction for each year in the baseline period.
- **Adjusted Gross Water Use Before Indirect Recycled Water Use:** Groundwater extractions adjusted for indirect recycled water use and purchased potable water were combined to obtain the adjusted urban water use.

Table A-1

(In Acre-feet)

YEAR	GROUNDWATER PRODUCTION	IMPORTED WATER FOR DIRECT USE*	RECLAIMED WATER FOR DIRECT USE*	TOTAL
WATER YEAR				
1960-61	354,400	196,800		551,200
1961-62	334,900	178,784		513,684
1962-63	284,500	222,131		506,631
1963-64	280,400	257,725		538,125
1964-65	271,400	313,766		585,166
1965-66	283,600	308,043		591,643
1966-67	269,000	352,787		621,787
1967-68	281,700	374,526		656,226
1968-69	275,400	365,528		640,928
1969-70	284,800	398,149		682,949
1970-71	272,500	397,122		669,622
1971-72	280,900	428,713		709,613
1972-73	265,900	400,785		666,685
1973-74	266,300	410,546		676,846
1974-75	269,800	380,228		650,028
1975-76	274,700	404,958		679,658
1976-77	271,300	355,896		627,196
1977-78	254,900	373,116		628,016
1978-79	265,000	380,101	100 [a]	645,201
1979-80	266,600	397,213	200	664,013
1980-81	269,626	294,730	300	564,656
1981-82	264,461	391,734	300	656,495
1982-83	252,090	408,543	400	661,033
1983-84	248,590	441,151	1,800	691,541
1984-85	245,831	451,549	2,000	699,380
1985-86	249,334	427,860	2,400	679,594
1986-87	244,686	478,744	2,300	725,730
1987-88	238,541	479,318	3,500	721,359
1988-89	244,530	466,166	5,300	715,996
1989-90	245,668	448,285	5,900	699,853
1990-91	240,700	485,109	5,000	730,809
1991-92	252,718	395,191	4,900	652,809
1992-93	190,736	388,949	824	580,509
1993-94	198,391	483,287	3,413	685,091
1994-95	221,998	437,191	6,143	665,332
1995-96	234,636	426,699	19,804	681,139
1996-97	240,137	436,569	25,046	701,752
1997-98	240,164	375,738	27,075	642,977
1998-99	256,344	396,655	30,510	683,509
1999-00	252,082	395,681	33,589	681,352
2000-01	249,231	395,024	32,589	676,844
2001-02	250,231	395,799	38,694	684,724
2002-03	242,214	381,148	38,839	662,201
2003-04	248,378	389,233	36,626	674,237
2004-05	230,004	402,660	33,988	666,652
2005-06	227,839	366,815	35,301	629,955
2006-07	235,770	376,492	41,899	654,161
2007-08	244,732	346,035	45,120	635,887
2008-09	243,402	320,711	43,153	607,266
2009-10	241,329	278,857	43,547	563,734
TOTAL	12,852,393	19,058,840	570,561	32,481,793

(a) Los Coyotes on-line in 1979; Long Beach on-line in 1980

** - Includes imported & recycled at seawater barriers, but not spreading grounds.*

The Act requires that a 2020 Target and 2015 Interim Target be calculated using the above elements and one of four methods. These methods, as described in the 2010 UWMP Guidebook, as follows:

- **Method 1:** Eighty percent of the water supplier's baseline per capita water use.

- **Method 2:** Per capita daily water use estimated using the sum of performance standards applied to indoor residential use, landscaped area water use, and CII uses.
- **Method 3:** Ninety-five percent of the applicable state hydrologic region target.
- **Method 4:** Calculated savings of metering currently unmetered water connections and achieving water conservation measures in three water use sectors.

While the above methods are used to calculate the 2020 Target and 2015 Interim Target for individual agencies, Method 9 is used to calculate the 2020 Target and 2015 Interim Target for a regional alliance. Method 9 does not utilize a distinct set of calculations; rather, the above methods are applied to the region using one of three options described in the 2010 UWMP Guidebook. These options are listed below:

- **Option 1:** A population-weighted average. A target is calculated for an individual urban water supplier, using any method described above, and for any baseline period (ending between December 31, 2004 and December 31, 2010). An agency's target is then multiplied by the ratio of that agency's population to the total population. Summing the resulting values from all participating agencies yields the Regional 2020 Target.
- **Option 2 and Option 3:** An aggregate of individual agency water use and population information. There are slight differences between Option 2 and Option 3, but they can be similarly described. The water use and population information is summed for all participating agencies, and the regional base daily per capita water use is calculated for each year. The 10-year or 15-year baseline is calculated for the region, and one of the four methods described above is applied to obtain the 2020 Target.

4 Results

Multiple Method-and-Option combinations were analyzed to calculate a 2020 Target that would best suit the Gateway Regional Alliance. While the Gateway Regional Alliance elected to calculate the 2020 Target using Option 1 with Method 1 and Method 3, the results of other approaches can be found in Appendix B. The following table details the agency-specific 5-year Baseline, 10-year Baseline, and 2020 Target as well as the Regional 10-Year Baseline, the Regional 2020 Target, and the Regional 2015 Interim Target.

Table 2. Regional Target Calculation

Methodology 9: Option 1 – Population Weighted Average								
City/Agency	**2010 Population**	**2010 5yr Baseline GPCD**	**2010 10yr Baseline GPCD**	**Baseline Weighted Use GPCD**	**2020 Target GPCD**	**Method**	**2020 Target Weighted Use GPCD**	**2015 Interim Target**
Bell Gardens	19,887	48	49	0.8	49	1	0.8	
BSMWC	46,000	99	106	3.9	94	3	3.5	
Cerritos	51,113	137	144	6.0	130	3	5.4	
Downey	110,452	114	113	10.1	108	3	9.6	
Huntington Park	64,219	62	65	3.4	65	1	3.4	
Lakewood	59,660	106	106	5.1	101	3	4.9	
Long Beach	462,257	112	120	44.9	106	3	39.7	
Lynwood	73,212	64	67	4.0	67	1	4.0	
Norwalk	18,361	115	118	1.7	110	3	1.6	
Paramount	57,805	98	101	4.7	93	3	4.4	
Pico Rivera*	62,942	102	102	5.2	97	3	4.9	
Santa Fe Springs	17,438	328	350	4.9	280	1	4.0	
Signal Hill	11,465	153	161	1.5	142	3	1.3	
South Gate	94,746	73	79	6.0	79	1	6.0	
Vernon	90	83005	81643	5.9	65314	1	4.8	
Whittier	87,128	69	71	5.0	71	1	5.0	
Regional Totals	1,236,775			113.2			103.1	108.2
*City of Pico Rivera and Pico Water District were combined								

5 Regional Alliance Formation

5.1 Alliance Process

As noted previously, the following urban water suppliers have committed to forming the Gateway Regional Alliance.

Participating Agencies	
Bellflower-Somerset Mutual Water Company	City of Bell Gardens
City of Cerritos	City of Downey
City of Huntington Park	City of Lakewood
City of Long Beach	City of Lynwood
City of Norwalk	City of Paramount
City of Pico Rivera	Pico Water District
City of Santa Fe Springs	City of Signal Hill
City of South Gate	City of Vernon
City of Whittier	

A Letter Agreement will be signed by all participating agencies and submitted to DWR to inform them that the Gateway Regional Alliance has been formed.

Each individual agency will adopt a Board Resolution and has agreed to take it to their individual Board of Supervisors for approval. While there may be minor differences due to formatting and preferred language the substance of the Resolution is the same for all agencies.

As indicated in the 2010 UWMP Guidebook, there are consequences should any member of the Gateway Regional Alliance decide to leave, or should the Gateway Regional Alliance decide to dissolve. If an individual agency withdraws from the Gateway Regional Alliance, the withdrawing water supplier must then comply individually. The water suppliers remaining in the Gateway Regional Alliance must revise the regional baseline and target data and alliance membership in the subsequent UWMP. The memorandum of understanding or other legal agreements governing the alliance may define additional consequences or remedies.

If the Gateway Regional Alliance dissolves before 2020, each affected water supplier must then comply individually or form or join another alliance. An affected water supplier that had not

previously submitted an individual urban water management plan has to submit an urban water management plan or a regional water management plan. The memorandum of understanding or other legal agreements governing the alliance may define additional consequences or remedies.

The Gateway Regional Alliance will revisit the calculations in 2015 and address any changes to the composition of the alliance or differences in the data. If any agencies have withdrawn from the alliance, or if new agencies have expressed an interest in joining, the same process will be used to calculate a new Baseline and 2020 Target. In addition to accepting requests to join, the Gateway Regional Alliance will make more outreach attempts to the remaining agencies within the Gateway IRWMP area.

5.2 Integration with Urban Water Management Plans

The Gateway Regional Alliance acknowledges that DWR will collect the data pertaining to the alliance through the individual supplier UWMPs, the Central Basin Regional UWMP, and this report. The following information; most of which has been detailed in this report, will also be presented in the individual supplier's UWMPs:

- A list of all regional alliances of which an individual supplier is a member
- Baseline Gross Water Use and Service Area Population (2010, 2015, 2020)
- Individual 2020 Urban Water Use Target and Interim 2015 Urban Water Use Target
- Compliance Year Gross Water Use (2015 and 2020) and Service Area Population
- Adjustments to Gross Water Use in the compliance year (2015 and 2020)

Central Basin will include the data elements that are now required to be included in the individual UWMPs (above), as well as the same data elements aggregated over all regional alliance members in the regional UWMP.

6 Conclusion

The Gateway Regional Alliance has been formed by agencies in the Gateway IRWMP area for the purpose of complying with the requirements of SBX7-7. In accordance with the methodologies and approaches outlined in the 2010 UWMP Guidebook, the Gateway Regional Alliance has calculated the Regional Baseline Daily Per Capita Water Use, Regional 2020 Urban Water Use Target, and Regional 2015 Interim Urban Water Use Target. The following table displays these values.

Gateway Regional Alliance Summary Values

Regional 2010 Population	1,236,775
Regional 10-Yr Baseline GPCD (Ending December 31, 2010)	113.2
Regional 2015 Interim Target GPCD	108.2
Regional 2020 Target GPCD	103.1

7 References

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

Water Replenishment District of Southern California. March 4, 2011. Engineering Survey and Report.

Appendix A

Los Angeles Gateway Region

Integrated Regional Water Management
Joint Powers Authority
11111 Brookshire Avenue, Downey, California 90241
(562) 904-2180 (ph) (562) 923-6388 (fax)

Christopher Cash
Board Chair
Paramount

Adriana Figueroa
Vice-Chair
Norwalk

Desi Alvarez
Secretary-Treasurer
Downey

Kevin Wattier
Chair Emeritus
Long Beach Water Department

———

John Oropeza
Bell Gardens

Deborah Chankin
Bellflower

Art Aguilar
Central Basin
Municipal Water District

Vince Brar
Cerritos

Gina Nila
Commerce

Jim Glancy
Lakewood

Mark Christoffels
Long Beach

G. Daniel Ojeda
Lynwood

Al Cablay
Pico Rivera

Don Jensen
Santa Fe Springs

Charlie Honeycutt
Signal Hill

William DeWitt
South Gate

Joseph Serrano
Southeast Water Coalition

Kevin Wilson
Vernon

David Pelser
Whittier

Annette Hubbell
Executive Officer

Steve Dorsey
General Counsel
Richards Watson Gershon

March 11, 2011

Re: Offer of Assistance in Supplying State-Mandated Water Usage Data for your Urban Water Management Plan

Dear :

The Gateway Authority (Los Angeles Gateway Region Integrated Regional Water Management Joint Powers Authority) is embarking on a regional compliance approach to fulfill the requirements of the Water Conservation Act of 2009 (SBx7-7).

The provisions of the Water Conservation Act, signed by the Governor on November 10, 2009, require that you develop per capita urban water use targets for 2020 and interim dates in order to qualify for state grants and loans. This can be a time-consuming, labor-intensive task. One of the options provided by the statutes, however, include developing these water conservation goals on a regional basis. The Gateway Authority, as a regional entity, is in the process of coordinating and compiling the 20x2020 targets for its members and other stakeholders. The Gateway Authority will need to provide that submittal to the Department of Water Resources (DWR) by June 30, 2011.

Because compliance can be assessed regionally, if the region does meet that regional target, all suppliers in the alliance will be deemed compliant. Additional benefits of regional compliance include a reduction in reporting costs, continuing regional coordination and cooperation, and a contribution to more efficient water use.

The Gateway Authority would like to extend an invitation to you to participate in the Gateway Authority's regional effort.

If you are interested in participating in this process, or have questions, please contact me at ashubbell@cox.net, or 858-395-5083. For your convenience, I have attached a fact sheet with information about who we are. Our consultant, Bookman-Edmonston/GEI Consultants, has already begun collecting information for the process; therefore, your rapid response to this invitation is requested. Please provide indication of your interest no later than March 31, 2011.

Sincerely,

Annette Hubbell
Executive Officer
Gateway Authority

enc: Gateway Authority Fact Sheet

Appendix B

Regional Target Calculation
Methodology 9 - Option 1: Population Weighted Average
Targets Calculated Using only Method 1

City/Agency	2010 Population	2010 Baseline GPCD	Baseline Weighted Use (Gal)	2020 Target GPCD	2020 Target Weighted Use* (Gal)	2015 Interim Target
Bell Gardens	19,887	49	0.8	49	0.8	
BSMWC	46,000	106	3.9	85	3.1	
Cerritos	51,113	144	6.0	115	4.8	
Downey	110,452	113	10.1	91	8.1	
Huntington Park	64,219	65	3.4	65	3.4	
Lakewood	59,660	106	5.1	85	4.1	
Long Beach	462,257	120	44.9	96	35.9	
Lynwood	73,212	67	4.0	67	4.0	
Norwalk	18,361	118	1.7	94	1.4	
Paramount	57,805	101	4.7	81	3.8	
Pico Rivera	62,942	102	5.2	82	4.2	
Santa Fe Springs	17,438	350	4.9	280	4.0	
Signal Hill	11,465	161	1.5	129	1.2	
South Gate	94,746	79	6.0	79	6.0	
Vernon	90	81643	5.9	65314	4.8	
Whittier	87,128	71	5.0	71	5.0	
Total	1,236,775		113.2		94.4	103.8

Target was calculated for all agencies using Method 1: 80% Reduction

Regional Target Calculation
Methodology 9 - Option 2: Aggregate Population and Water Use
Target Calculated Using Method 1

(1) Base Year	(2) Service Area Population	(3) Gross Water Use (Gal/Day)	(4) Daily Per Capita Water Use (3)/(2)
1996			
1997			
1998			
1999			
2000			
2001	1,200,915	139,356,293	116
2002	1,206,434	142,270,711	118
2003	1,210,898	138,616,335	114
2004	1,215,776	142,060,619	117
2005	1,245,155	139,721,130	112
2006	1,235,223	141,667,824	115
2007	1,244,926	143,739,334	115
2008	1,244,112	135,777,434	109
2009	1,240,450	125,567,444	101
2010	1,236,775	118,068,398	95
		Total of Column (4)	1113
		Baseline Daily Per Capita Water Use	111

(1) Base Year	(2) Service Area Population	(3) Gross Water Use (Gal/Day)	(4) Daily Per Capita Water Use (3)/(2)
2006	1,235,223	141,667,824	115
2007	1,244,926	143,739,334	115
2008	1,244,112	135,777,434	109
2009	1,240,450	125,567,444	101
2010	1,236,775	118,068,398	95
		Total of Column (4)	536
		5-Year Base Daily Per Capita Water Use	107

Gateway Regional Alliance, 2020 Urban Water Use Target GPCD (Method 1)	89
Gateway Regional Alliance, 2015 Interim Urban Water Use Target GPCD (Average of Baseline and 2020 Target)	100

Regional Target Calculation
Methodology 9 - Option 2: Aggregate Population and Water Use
Target Calculated Using Method 3

(1) Base Year	(2) Service Area Population	(3) Gross Water Use (Gal/Day)	(4) Daily Per Capita Water Use (3)/(2)
1996			
1997			
1998			
1999			
2000			
2001	1,200,915	139,356,293	116
2002	1,206,434	142,270,711	118
2003	1,210,898	138,616,335	114
2004	1,215,776	142,060,619	117
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2010	1,236,775	118,068,398	95
		Total of Column (4)	1113
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2008	1,244,112	135,777,434	109
2009	1,240,450	125,567,444	101
2010	1,236,775	118,068,398	95
		Total of Column (4)	536
		5-Year Base Daily Per Capita Water Use	107

Gateway Regional Alliance, 2020 Urban Water Use Target GPCD (Method 3)	102
Gateway Regional Alliance, 2015 Interim Urban Water Use Target GPCD (Average of Baseline and 2020 Target)	107

Appendix C

Letter Agreement

Between and Among the Cities of Cerritos, Downey, Huntington Park, Lakewood, Long Beach, Lynwood, Norwalk, Paramount, Pico Rivera, Santa Fe Springs, Signal Hill, South Gate, Vernon, Whittier, and Pico Water District

For

Establishing a Regional Alliance to Comply with SB X7-7, the Water Conservation Act of 2009

Recitals

1. The Water Conservation Act of 2009 (SB X7-7) set a goal of achieving a 20% reduction in statewide urban per capita water use by the year 2020 and requires urban water retailers to set a 2020 urban per capita water use target. SB X7-7 provides that urban water retailers may plan, comply and report on a regional basis, individual basis, or both.

2. The Parties to this Letter Agreement (Cities of Cerritos, Downey, Huntington Park, Lakewood, Long Beach, Lynwood, Norwalk, Paramount, Pico Rivera, Santa Fe Springs, Signal Hill, South Gate, Vernon, Whittier, and Pico Water District) are eligible to form a "regional Alliance" pursuant to the California *Department of Water Resources Methodologies for Calculating Baseline and Compliance Urban Per Capita Water Use* (DWR Methodologies) because the Parties are recipients of water from a common wholesale water supplier, Central Basin Municipal Water District, and are also a part of an Integrated Regional Water Management (IRWM) planning area, the Gateway Region IRWM. The Parties wish to establish a Regional Alliance for purposes of complying with SB X7-7.

Agreement for the Regional Alliance Formation, Target Calculation, and Reporting

Section 1. Regional Alliance Formation and Target Calculation

The Parties hereby form a Regional Alliance and agree to inform DWR, prior to July 1, 2011, that a Regional Alliance has been formed, pursuant to the DWR Methodologies. The Parties agree that the Regional Alliance Target will be calculated using Option X (as described in DWR Methodology 9). Each Party will include the Regional Alliance Target in its individual 2010 Urban Water Management Plan.

Section 2. Regional Alliance Review

The Parties intend to review and re-calculate the Regional Alliance and Regional Alliance Target, no later than December 31, 2015, in preparation of their respective 2015 Urban Water Management Plans.

Section 3. Regional Alliance Reporting

The Parties intend to prepare and submit Regional Alliance Reports pursuant to the DWR Methodologies, including, but not limited to, the following information:

- Baseline Gross Water Use and Service Area Population,
- 2015 and 2020 Water Use Targets (Individual and Regional),
- Compliance Year Gross Water Use and Service Area Population, and
- Adjustments to Gross Water Use in Compliance Year

Section 4. Regional Water Supply Planning

The Parties intend to participate in discussions regarding regional water supply planning.

Section 5. Regional Alliance Dissolution

The Parties agree that each Party can withdraw from the Regional Alliance at any time without penalty by giving written notice to all other Parties. If a Party withdraws from the Regional Alliance, the Parties agree that the Regional Target will be recalculated among remaining participating Parties as set forth in the DWR Methodologies.

Section 6. Miscellaneous

This Letter Agreement shall be between and among those Parties that have executed this Letter Agreement by (Month/Day), 2011. If all Parties have not executed this Letter Agreement by said date, the Parties who have executed this Letter Agreement by (Month/Day), 2011, agree that the Regional Target will be recalculated among participating Parties as set forth in the DWR Methodologies.

Section 7. Letter Agreement Authorization

This Letter Agreement may be signed in counterparts. By signing below, each signatory states that he or she is authorized to sign this Letter Agreement on behalf of the Party for which he or she is signing.

Signature	Date	Signature	Date
Print Name	City of Cerritos	Print Name	City of Downey
LEFT BLANK INTENTIONALLY		Signature	Date
		Print Name	City of Huntington Park

Signature Date	Signature Date
Print Name City of Lakewood	Print Name City of Long Beach
Signature Date	Signature Date
Print Name City of Lynwood	Print Name City of Norwalk
Signature Date 5/4/11	Signature Date
LINDA BENEDETTI-LEAL Print Name City of Paramount	Print Name City of Pico Rivera
Signature Date	Signature Date
Print Name City of Santa Fe Springs	Print Name City of Signal Hill
Signature Date	Signature Date
Print Name City of South Gate	Print Name City of Vernon
Signature Date	Signature Date
Print Name City of Whittier	Print Name Pico Water District

RESOLUTION NO. 2011-24

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF LAKEWOOD AUTHORIZING AND APPROVING A LETTER OF AGREEMENT BETWEEN AND AMONG THE CITIES OF DOWNEY, HUNTINGTON PARK, LAKEWOOD, LONG BEACH, LYNWOOD, NORWALK, PARAMOUNT, PICO RIVERA, SANTA FE SPRINGS, SIGNAL HILL, SOUTH GATE, VERNON, WHITTIER, AND PICO WATER DISTRICT FOR ESTABLISHING A REGIONAL ALLIANCE TO COMPLY WITH SB X7-7, THE WATER CONSERVATION ACT OF 2009

WHEREAS, Senate Bill X7-7, the Water Conservation Act was signed into law in 2009; and

WHEREAS, the Water Conservation Act of 2009 sets a goal for urban water suppliers to reduce per capita water use by 20 percent by the year 2020; and

WHEREAS, the City desires to participate in a regional alliance for the purposes of compliance with the Water Conservation Act of 2009; and

WHEREAS, the City further supports the regional water planning program sponsored by the Los Angeles Gateway Region Integrated Water Management Joint Powers Authority.

NOW, THEREFORE, BE IT RESOLVED by the City Council of the City of Lakewood that it does hereby authorize and approve a letter agreement between and among the cities of Downey, Huntington Park, Lakewood, Long Beach, Lynwood, Norwalk, Paramount, Pico Rivera, Santa Fe Springs, Signal Hill, South Gate, Vernon, Whittier, and Pico Water District for establishing a regional alliance to comply with SB X7-7, the Water Conservation Act of 2009.

BE IT FURTHER RESOLVED that the City Manager is hereby authorized and directed to take all actions to effectuate this agreement for and on behalf of the City of Lakewood, including execution, if necessary, in substantially similar form to the agreement attached hereto as Exhibit "A," subject to minor modifications by the City Manager or City Attorney.

ADOPTED AND APPROVED THIS 24TH DAY OF MAY, 2011.

Mayor

ATTEST:

City Clerk

D URBAN WATER MANAGEMENT PLANNING ACT

Established: AB 797, Klehs, 1983
Amended: AB 2661, Klehs, 1990
AB 11X, Filante, 1991
AB 1869, Speier, 1991
AB 892, Frazee, 1993
SB 1017, McCorquodale, 1994
AB 2853, Cortese, 1994
AB 1845, Cortese, 1995
SB 1011, Polanco, 1995
AB 2552, Bates, 2000
SB 553, Kelley, 2000
SB 610, Costa, 2001
AB 901, Daucher, 2001
SB 672, Machado, 2001
SB 1348, Brulte, 2002
SB 1384, Costa, 2002
SB 1518, Torlakson, 2002
AB 105, Wiggins, 2004
SB 318, Alpert, 2004

CALIFORNIA WATER CODE DIVISION 6
PART 2.6. URBAN WATER MANAGEMENT PLANNING

CHAPTER 1. GENERAL DECLARATION AND POLICY

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.

CHAPTER 2. DEFINITIONS

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.

CHAPTER 3. URBAN WATER MANAGEMENT PLANS
Article 1. General Provisions

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 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).

Article 2. Contents of Plans

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 and 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) 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:

(1) An average water year.
(2) A single dry water year.
(3) Multiple dry water years.

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) Urban water suppliers that are members of the California Urban Water Conservation Council and submit annual reports to that council

in accordance with the ‘‘Memorandum of Understanding Regarding Urban Water Conservation in California,’’ dated September 1991, may submit the annual reports identifying water demand management measures currently being implemented, or scheduled for implementation, to satisfy the requirements of subdivisions (f) and (g).

(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), including, but not limited to, ocean water, brackish water, and groundwater, as a long-term supply.

10631.5. The department shall take into consideration whether the urban water supplier is implementing or scheduled for implementation, the water demand management activities that the urban water supplier identified in its urban water management plan, pursuant to Section 10631, in evaluating applications for grants and loans made available pursuant to Section 79163. 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.

10632. The plan shall provide an urban water shortage contingency analysis which includes each of the following elements which 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.

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.

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.

Article 2.5 Water Service Reliability

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.

Articl 3. Adoption and Implementation of Plans

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 file with the department 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 filed with the department 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 outstanding elements of the individual plans. The department shall provide a copy of the report to each urban water supplier that has filed its plan with 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.

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.

CHAPTER 4. MISCELLANEOUS PROVISIONS

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.

10657.

(a) The department shall take into consideration whether the urban water supplier has submitted an updated urban water management plan that is consistent with Section 10631, as amended by the act that adds this section, in determining whether the urban water supplier is eligible for funds made available pursuant to any program administered by the department.

(b) This section shall remain in effect only until January 1, 2006, and as of that date is repealed, unless a later enacted statute, that is enacted before January 1, 2006, deletes or extends that date.

E SBX7-7

Senate Bill No. 7

CHAPTER 4

An act to amend and repeal Section 10631.5 of, to add Part 2.55 (commencing with Section 10608) to Division 6 of, and to repeal and add Part 2.8 (commencing with Section 10800) of Division 6 of, the Water Code, relating to water.

[Approved by Governor November 10, 2009. Filed with Secretary of State November 10, 2009.]

LEGISLATIVE COUNSEL'S DIGEST

SB 7, Steinberg. Water conservation.

(1) Existing law requires the Department of Water Resources to convene an independent technical panel to provide information to the department and the Legislature on new demand management measures, technologies, and approaches. "Demand management measures" 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.

This bill would require the state to achieve a 20% reduction in urban per capita water use in California by December 31, 2020. The state would be required to make incremental progress towards this goal by reducing per capita water use by at least 10% on or before December 31, 2015. The bill would require each urban retail water supplier to develop urban water use targets and an interim urban water use target, in accordance with specified requirements. The bill would require agricultural water suppliers to implement efficient water management practices. The bill would require the department, in consultation with other state agencies, to develop a single standardized water use reporting form. The bill, with certain exceptions, would provide that urban retail water suppliers, on and after July 1, 2016, and agricultural water suppliers, on and after July 1, 2013, are not eligible for state water grants or loans unless they comply with the water conservation requirements established by the bill. The bill would repeal, on July 1, 2016, an existing requirement that conditions eligibility for certain water management grants or loans to an urban water supplier on the implementation of certain water demand management measures.

(2) Existing law, until January 1, 1993, and thereafter only as specified, requires certain agricultural water suppliers to prepare and adopt water management plans.

This bill would revise existing law relating to agricultural water management planning to require agricultural water suppliers to prepare and adopt agricultural water management plans with specified components on or before December 31, 2012, and update those plans on or before December

31, 2015, and on or before December 31 every 5 years thereafter. An agricultural water supplier that becomes an agricultural water supplier after December 31, 2012, would be required to prepare and adopt an agricultural water management plan within one year after becoming an agricultural water supplier. The agricultural water supplier would be required to notify each city or county within which the supplier provides water supplies with regard to the preparation or review of the plan. The bill would require the agricultural water supplier to submit copies of the plan to the department and other specified entities. The bill would provide that an agricultural water supplier is not eligible for state water grants or loans unless the supplier complies with the water management planning requirements established by the bill.

(3) The bill would take effect only if SB 1 and SB 6 of the 2009–10 7th Extraordinary Session of the Legislature are enacted and become effective.

The people of the State of California do enact as follows:

SECTION 1. Part 2.55 (commencing with Section 10608) is added to Division 6 of the Water Code, to read:

PART 2.55. SUSTAINABLE WATER USE AND DEMAND REDUCTION

Chapter 1. General Declarations and Policy

10608. The Legislature finds and declares all of the following:

(a) Water is a public resource that the California Constitution protects against waste and unreasonable use.

(b) Growing population, climate change, and the need to protect and grow California's economy while protecting and restoring our fish and wildlife habitats make it essential that the state manage its water resources as efficiently as possible.

(c) Diverse regional water supply portfolios will increase water supply reliability and reduce dependence on the Delta.

(d) Reduced water use through conservation provides significant energy and environmental benefits, and can help protect water quality, improve streamflows, and reduce greenhouse gas emissions.

(e) The success of state and local water conservation programs to increase efficiency of water use is best determined on the basis of measurable outcomes related to water use or efficiency.

(f) Improvements in technology and management practices offer the potential for increasing water efficiency in California over time, providing an essential water management tool to meet the need for water for urban, agricultural, and environmental uses.

(g) The Governor has called for a 20 percent per capita reduction in urban water use statewide by 2020.

(h) The factors used to formulate water use efficiency targets can vary significantly from location to location based on factors including weather, patterns of urban and suburban development, and past efforts to enhance water use efficiency.

(i) Per capita water use is a valid measure of a water provider's efforts to reduce urban water use within its service area. However, per capita water use is less useful for measuring relative water use efficiency between different water providers. Differences in weather, historical patterns of urban and suburban development, and density of housing in a particular location need to be considered when assessing per capita water use as a measure of efficiency.

10608.4. It is the intent of the Legislature, by the enactment of this part, to do all of the following:

(a) Require all water suppliers to increase the efficiency of use of this essential resource.

(b) Establish a framework to meet the state targets for urban water conservation identified in this part and called for by the Governor.

(c) Measure increased efficiency of urban water use on a per capita basis.

(d) Establish a method or methods for urban retail water suppliers to determine targets for achieving increased water use efficiency by the year 2020, in accordance with the Governor's goal of a 20-percent reduction.

(e) Establish consistent water use efficiency planning and implementation standards for urban water suppliers and agricultural water suppliers.

(f) Promote urban water conservation standards that are consistent with the California Urban Water Conservation Council's adopted best management practices and the requirements for demand management in Section 10631.

(g) Establish standards that recognize and provide credit to water suppliers that made substantial capital investments in urban water conservation since the drought of the early 1990s.

(h) Recognize and account for the investment of urban retail water suppliers in providing recycled water for beneficial uses.

(i) Require implementation of specified efficient water management practices for agricultural water suppliers.

(j) Support the economic productivity of California's agricultural, commercial, and industrial sectors.

(k) Advance regional water resources management.

10608.8. (a) (1) Water use efficiency measures adopted and implemented pursuant to this part or Part 2.8 (commencing with Section 10800) are water conservation measures subject to the protections provided under Section 1011.

(2) Because an urban agency is not required to meet its urban water use target until 2020 pursuant to subdivision (b) of Section 10608.24, an urban retail water supplier's failure to meet those targets shall not establish a violation of law for purposes of any state administrative or judicial proceeding prior to January 1, 2021. Nothing in this paragraph limits the use of data reported to the department or the board in litigation or an

administrative proceeding. This paragraph shall become inoperative on January 1, 2021.

(3) To the extent feasible, the department and the board shall provide for the use of water conservation reports required under this part to meet the requirements of Section 1011 for water conservation reporting.

(b) This part does not limit or otherwise affect the application of Chapter 3.5 (commencing with Section 11340), Chapter 4 (commencing with Section 11370), Chapter 4.5 (commencing with Section 11400), and Chapter 5 (commencing with Section 11500) of Part 1 of Division 3 of Title 2 of the Government Code.

(c) This part does not require a reduction in the total water used in the agricultural or urban sectors, because other factors, including, but not limited to, changes in agricultural economics or population growth may have greater effects on water use. This part does not limit the economic productivity of California's agricultural, commercial, or industrial sectors.

(d) The requirements of this part do not apply to an agricultural water supplier that is a party to the Quantification Settlement Agreement, as defined in subdivision (a) of Section 1 of Chapter 617 of the Statutes of 2002, during the period within which the Quantification Settlement Agreement remains in effect. After the expiration of the Quantification Settlement Agreement, to the extent conservation water projects implemented as part of the Quantification Settlement Agreement remain in effect, the conserved water created as part of those projects shall be credited against the obligations of the agricultural water supplier pursuant to this part.

Chapter 2. Definitions

10608.12. Unless the context otherwise requires, the following definitions govern the construction of this part:

(a) "Agricultural water supplier" means a water supplier, either publicly or privately owned, providing water to 10,000 or more irrigated acres, excluding recycled water. "Agricultural water supplier" includes a supplier or contractor for water, regardless of the basis of right, that distributes or sells water for ultimate resale to customers. "Agricultural water supplier" does not include the department.

(b) "Base daily per capita water use" means any of the following:

(1) The urban retail water supplier's estimate of its average gross water use, reported in gallons per capita per day and calculated over a continuous 10-year period ending no earlier than December 31, 2004, and no later than December 31, 2010.

(2) For an urban retail water supplier that meets at least 10 percent of its 2008 measured retail water demand through recycled water that is delivered within the service area of an urban retail water supplier or its urban wholesale water supplier, the urban retail water supplier may extend the calculation described in paragraph (1) up to an additional five years to a maximum of

a continuous 15-year period ending no earlier than December 31, 2004, and no later than December 31, 2010.

(3) For the purposes of Section 10608.22, the urban retail water supplier's estimate of its average gross water use, reported in gallons per capita per day and calculated over a continuous five-year period ending no earlier than December 31, 2007, and no later than December 31, 2010.

(c) "Baseline commercial, industrial, and institutional water use" means an urban retail water supplier's base daily per capita water use for commercial, industrial, and institutional users.

(d) "Commercial water user" means a water user that provides or distributes a product or service.

(e) "Compliance daily per capita water use" means the gross water use during the final year of the reporting period, reported in gallons per capita per day.

(f) "Disadvantaged community" means a community with an annual median household income that is less than 80 percent of the statewide annual median household income.

(g) "Gross water use" means the total volume of water, whether treated or untreated, entering the distribution system of an urban retail water supplier, excluding all of the following:

(1) Recycled water that is delivered within the service area of an urban retail water supplier or its urban wholesale water supplier.

(2) The net volume of water that the urban retail water supplier places into long-term storage.

(3) The volume of water the urban retail water supplier conveys for use by another urban water supplier.

(4) The volume of water delivered for agricultural use, except as otherwise provided in subdivision (f) of Section 10608.24.

(h) "Industrial water user" means a water user that is primarily a manufacturer or processor of materials as defined by the North American Industry Classification System code sectors 31 to 33, inclusive, or an entity that is a water user primarily engaged in research and development.

(i) "Institutional water user" means a water user dedicated to public service. This type of user includes, among other users, higher education institutions, schools, courts, churches, hospitals, government facilities, and nonprofit research institutions.

(j) "Interim urban water use target" means the midpoint between the urban retail water supplier's base daily per capita water use and the urban retail water supplier's urban water use target for 2020.

(k) "Locally cost effective" means that the present value of the local benefits of implementing an agricultural efficiency water management practice is greater than or equal to the present value of the local cost of implementing that measure.

(*l*) "Process water" means water used for producing a product or product content or water used for research and development, including, but not limited to, continuous manufacturing processes, water used for testing and maintaining equipment used in producing a product or product content, and

water used in combined heat and power facilities used in producing a product or product content. Process water does not mean incidental water uses not related to the production of a product or product content, including, but not limited to, water used for restrooms, landscaping, air conditioning, heating, kitchens, and laundry.

(m) "Recycled water" means recycled water, as defined in subdivision (n) of Section 13050, that is used to offset potable demand, including recycled water supplied for direct use and indirect potable reuse, that meets the following requirements, where applicable:

(1) For groundwater recharge, including recharge through spreading basins, water supplies that are all of the following:

(A) Metered.

(B) Developed through planned investment by the urban water supplier or a wastewater treatment agency.

(C) Treated to a minimum tertiary level.

(D) Delivered within the service area of an urban retail water supplier or its urban wholesale water supplier that helps an urban retail water supplier meet its urban water use target.

(2) For reservoir augmentation, water supplies that meet the criteria of paragraph (1) and are conveyed through a distribution system constructed specifically for recycled water.

(n) "Regional water resources management" means sources of supply resulting from watershed-based planning for sustainable local water reliability or any of the following alternative sources of water:

(1) The capture and reuse of stormwater or rainwater.

(2) The use of recycled water.

(3) The desalination of brackish groundwater.

(4) The conjunctive use of surface water and groundwater in a manner that is consistent with the safe yield of the groundwater basin.

(o) "Reporting period" means the years for which an urban retail water supplier reports compliance with the urban water use targets.

(p) "Urban retail water supplier" means a water supplier, either publicly or privately owned, that directly provides potable municipal water to more than 3,000 end users or that supplies more than 3,000 acre-feet of potable water annually at retail for municipal purposes.

(q) "Urban water use target" means the urban retail water supplier's targeted future daily per capita water use.

(r) "Urban wholesale water supplier," means a water supplier, either publicly or privately owned, that provides more than 3,000 acre-feet of water annually at wholesale for potable municipal purposes.

Chapter 3. Urban Retail Water Suppliers

10608.16. (a) The state shall achieve a 20-percent reduction in urban per capita water use in California on or before December 31, 2020.

(b) The state shall make incremental progress towards the state target specified in subdivision (a) by reducing urban per capita water use by at least 10 percent on or before December 31, 2015.

10608.20. (a) (1) Each urban retail water supplier shall develop urban water use targets and an interim urban water use target by July 1, 2011. Urban retail water suppliers may elect to determine and report progress toward achieving these targets on an individual or regional basis, as provided in subdivision (a) of Section 10608.28, and may determine the targets on a fiscal year or calendar year basis.

(2) It is the intent of the Legislature that the urban water use targets described in subdivision (a) cumulatively result in a 20-percent reduction from the baseline daily per capita water use by December 31, 2020.

(b) An urban retail water supplier shall adopt one of the following methods for determining its urban water use target pursuant to subdivision (a):

(1) Eighty percent of the urban retail water supplier's baseline per capita daily water use.

(2) The per capita daily water use that is estimated using the sum of the following performance standards:

(A) For indoor residential water use, 55 gallons per capita daily water use as a provisional standard. Upon completion of the department's 2016 report to the Legislature pursuant to Section 10608.42, this standard may be adjusted by the Legislature by statute.

(B) For landscape irrigated through dedicated or residential meters or connections, water efficiency equivalent to the standards of the Model Water Efficient Landscape Ordinance set forth in Chapter 2.7 (commencing with Section 490) of Division 2 of Title 23 of the California Code of Regulations, as in effect the later of the year of the landscape's installation or 1992. An urban retail water supplier using the approach specified in this subparagraph shall use satellite imagery, site visits, or other best available technology to develop an accurate estimate of landscaped areas.

(C) For commercial, industrial, and institutional uses, a 10-percent reduction in water use from the baseline commercial, industrial, and institutional water use by 2020.

(3) Ninety-five percent of the applicable state hydrologic region target, as set forth in the state's draft 20x2020 Water Conservation Plan (dated April 30, 2009). If the service area of an urban water supplier includes more than one hydrologic region, the supplier shall apportion its service area to each region based on population or area.

(4) A method that shall be identified and developed by the department, through a public process, and reported to the Legislature no later than December 31, 2010. The method developed by the department shall identify per capita targets that cumulatively result in a statewide 20-percent reduction in urban daily per capita water use by December 31, 2020. In developing urban daily per capita water use targets, the department shall do all of the following:

(A) Consider climatic differences within the state.

(B) Consider population density differences within the state.

(C) Provide flexibility to communities and regions in meeting the targets.

(D) Consider different levels of per capita water use according to plant water needs in different regions.

(E) Consider different levels of commercial, industrial, and institutional water use in different regions of the state.

(F) Avoid placing an undue hardship on communities that have implemented conservation measures or taken actions to keep per capita water use low.

(c) If the department adopts a regulation pursuant to paragraph (4) of subdivision (b) that results in a requirement that an urban retail water supplier achieve a reduction in daily per capita water use that is greater than 20 percent by December 31, 2020, an urban retail water supplier that adopted the method described in paragraph (4) of subdivision (b) may limit its urban water use target to a reduction of not more than 20 percent by December 31, 2020, by adopting the method described in paragraph (1) of subdivision (b).

(d) The department shall update the method described in paragraph (4) of subdivision (b) and report to the Legislature by December 31, 2014. An urban retail water supplier that adopted the method described in paragraph (4) of subdivision (b) may adopt a new urban daily per capita water use target pursuant to this updated method.

(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.

(f) When calculating per capita values for the purposes of this chapter, an urban retail water supplier shall determine population using federal, state, and local population reports and projections.

(g) An urban retail water supplier may update its 2020 urban water use target in its 2015 urban water management plan required pursuant to Part 2.6 (commencing with Section 10610).

(h) (1) The department, through a public process and in consultation with the California Urban Water Conservation Council, shall develop technical methodologies and criteria for the consistent implementation of this part, including, but not limited to, both of the following:

(A) Methodologies for calculating base daily per capita water use, baseline commercial, industrial, and institutional water use, compliance daily per capita water use, gross water use, service area population, indoor residential water use, and landscaped area water use.

(B) Criteria for adjustments pursuant to subdivisions (d) and (e) of Section 10608.24.

(2) The department shall post the methodologies and criteria developed pursuant to this subdivision on its Internet Web site, and make written copies

available, by October 1, 2010. An urban retail water supplier shall use the methods developed by the department in compliance with this part.

(i) (1) The department shall adopt regulations for implementation of the provisions relating to process water in accordance with subdivision (*l*) of Section 10608.12, subdivision (e) of Section 10608.24, and subdivision (d) of Section 10608.26.

(2) The initial adoption of a regulation authorized by this subdivision is deemed to address an emergency, for purposes of Sections 11346.1 and 11349.6 of the Government Code, and the department is hereby exempted for that purpose from the requirements of subdivision (b) of Section 11346.1 of the Government Code. After the initial adoption of an emergency regulation pursuant to this subdivision, the department shall not request approval from the Office of Administrative Law to readopt the regulation as an emergency regulation pursuant to Section 11346.1 of the Government Code.

(j) An urban retail water supplier shall be granted an extension to July 1, 2011, for adoption of an urban water management plan pursuant to Part 2.6 (commencing with Section 10610) due in 2010 to allow use of technical methodologies developed by the department pursuant to paragraph (4) of subdivision (b) and subdivision (h). An urban retail water supplier that adopts an urban water management plan due in 2010 that does not use the methodologies developed by the department pursuant to subdivision (h) shall amend the plan by July 1, 2011, to comply with this part.

10608.22. Notwithstanding the method adopted by an urban retail water supplier pursuant to Section 10608.20, an urban retail water supplier's per capita daily water use reduction shall be no less than 5 percent of base daily per capita water use as defined in paragraph (3) of subdivision (b) of Section 10608.12. This section does not apply to an urban retail water supplier with a base daily per capita water use at or below 100 gallons per capita per day.

10608.24. (a) Each urban retail water supplier shall meet its interim urban water use target by December 31, 2015.

(b) Each urban retail water supplier shall meet its urban water use target by December 31, 2020.

(c) An urban retail water supplier's compliance daily per capita water use shall be the measure of progress toward achievement of its urban water use target.

(d) (1) When determining compliance daily per capita water use, an urban retail water supplier may consider the following factors:

(A) Differences in evapotranspiration and rainfall in the baseline period compared to the compliance reporting period.

(B) Substantial changes to commercial or industrial water use resulting from increased business output and economic development that have occurred during the reporting period.

(C) Substantial changes to institutional water use resulting from fire suppression services or other extraordinary events, or from new or expanded operations, that have occurred during the reporting period.

(2) If the urban retail water supplier elects to adjust its estimate of compliance daily per capita water use due to one or more of the factors described in paragraph (1), it shall provide the basis for, and data supporting, the adjustment in the report required by Section 10608.40.

(e) When developing the urban water use target pursuant to Section 10608.20, an urban retail water supplier that has a substantial percentage of industrial water use in its service area, may exclude process water from the calculation of gross water use to avoid a disproportionate burden on another customer sector.

(f) (1) An urban retail water supplier that includes agricultural water use in an urban water management plan pursuant to Part 2.6 (commencing with Section 10610) may include the agricultural water use in determining gross water use. An urban retail water supplier that includes agricultural water use in determining gross water use and develops its urban water use target pursuant to paragraph (2) of subdivision (b) of Section 10608.20 shall use a water efficient standard for agricultural irrigation of 100 percent of reference evapotranspiration multiplied by the crop coefficient for irrigated acres.

(2) An urban retail water supplier, that is also an agricultural water supplier, is not subject to the requirements of Chapter 4 (commencing with Section 10608.48), if the agricultural water use is incorporated into its urban water use target pursuant to paragraph (1).

10608.26. (a) In complying with this part, an urban retail water supplier shall conduct at least one public hearing to accomplish all of the following:

(1) Allow community input regarding the urban retail water supplier's implementation plan for complying with this part.

(2) Consider the economic impacts of the urban retail water supplier's implementation plan for complying with this part.

(3) Adopt a method, pursuant to subdivision (b) of Section 10608.20, for determining its urban water use target.

(b) In complying with this part, an urban retail water supplier may meet its urban water use target through efficiency improvements in any combination among its customer sectors. An urban retail water supplier shall avoid placing a disproportionate burden on any customer sector.

(c) For an urban retail water supplier that supplies water to a United States Department of Defense military installation, the urban retail water supplier's implementation plan for complying with this part shall consider the United States Department of Defense military installation's requirements under federal Executive Order 13423.

(d) (1) Any ordinance or resolution adopted by an urban retail water supplier after the effective date of this section shall not require existing customers as of the effective date of this section, to undertake changes in product formulation, operations, or equipment that would reduce process water use, but may provide technical assistance and financial incentives to those customers to implement efficiency measures for process water. This section shall not limit an ordinance or resolution adopted pursuant to a declaration of drought emergency by an urban retail water supplier.

(2) This part shall not be construed or enforced so as to interfere with the requirements of Chapter 4 (commencing with Section 113980) to Chapter 13 (commencing with Section 114380), inclusive, of Part 7 of Division 104 of the Health and Safety Code, or any requirement or standard for the protection of public health, public safety, or worker safety established by federal, state, or local government or recommended by recognized standard setting organizations or trade associations.

10608.28. (a) An urban retail water supplier may meet its urban water use target within its retail service area, or through mutual agreement, by any of the following:

(1) Through an urban wholesale water supplier.

(2) Through a regional agency authorized to plan and implement water conservation, including, but not limited to, an agency established under the Bay Area Water Supply and Conservation Agency Act (Division 31 (commencing with Section 81300)).

(3) Through a regional water management group as defined in Section 10537.

(4) By an integrated regional water management funding area.

(5) By hydrologic region.

(6) Through other appropriate geographic scales for which computation methods have been developed by the department.

(b) A regional water management group, with the written consent of its member agencies, may undertake any or all planning, reporting, and implementation functions under this chapter for the member agencies that consent to those activities. Any data or reports shall provide information both for the regional water management group and separately for each consenting urban retail water supplier and urban wholesale water supplier.

10608.32. All costs incurred pursuant to this part by a water utility regulated by the Public Utilities Commission may be recoverable in rates subject to review and approval by the Public Utilities Commission, and may be recorded in a memorandum account and reviewed for reasonableness by the Public Utilities Commission.

10608.36. Urban wholesale water suppliers shall include in the urban water management plans required pursuant to Part 2.6 (commencing with Section 10610) an assessment of their present and proposed future measures, programs, and policies to help achieve the water use reductions required by this part.

10608.40. Urban water retail suppliers shall report to the department on their progress in meeting their urban water use targets as part of their urban water management plans submitted pursuant to Section 10631. The data shall be reported using a standardized form developed pursuant to Section 10608.52.

10608.42. The department shall review the 2015 urban water management plans and report to the Legislature by December 31, 2016, on progress towards achieving a 20-percent reduction in urban water use by December 31, 2020. The report shall include recommendations on changes to water efficiency standards or urban water use targets in order to achieve

the 20-percent reduction and to reflect updated efficiency information and technology changes.

10608.43. The department, in conjunction with the California Urban Water Conservation Council, by April 1, 2010, shall convene a representative task force consisting of academic experts, urban retail water suppliers, environmental organizations, commercial water users, industrial water users, and institutional water users to develop alternative best management practices for commercial, industrial, and institutional users and an assessment of the potential statewide water use efficiency improvement in the commercial, industrial, and institutional sectors that would result from implementation of these best management practices. The taskforce, in conjunction with the department, shall submit a report to the Legislature by April 1, 2012, that shall include a review of multiple sectors within commercial, industrial, and institutional users and that shall recommend water use efficiency standards for commercial, industrial, and institutional users among various sectors of water use. The report shall include, but not be limited to, the following:

(a) Appropriate metrics for evaluating commercial, industrial, and institutional water use.

(b) Evaluation of water demands for manufacturing processes, goods, and cooling.

(c) Evaluation of public infrastructure necessary for delivery of recycled water to the commercial, industrial, and institutional sectors.

(d) Evaluation of institutional and economic barriers to increased recycled water use within the commercial, industrial, and institutional sectors.

(e) Identification of technical feasibility and cost of the best management practices to achieve more efficient water use statewide in the commercial, industrial, and institutional sectors that is consistent with the public interest and reflects past investments in water use efficiency.

10608.44. Each state agency shall reduce water use on facilities it operates to support urban retail water suppliers in meeting the target identified in Section 10608.16.

Chapter 4. Agricultural Water Suppliers

10608.48. (a) On or before July 31, 2012, an agricultural water supplier shall implement efficient water management practices pursuant to subdivisions (b) and (c).

(b) Agricultural water suppliers shall implement all of the following critical efficient management practices:

(1) Measure the volume of water delivered to customers with sufficient accuracy to comply with subdivision (a) of Section 531.10 and to implement paragraph (2).

(2) Adopt a pricing structure for water customers based at least in part on quantity delivered.

(c) Agricultural water suppliers shall implement additional efficient management practices, including, but not limited to, practices to accomplish all of the following, if the measures are locally cost effective and technically feasible:

(1) Facilitate alternative land use for lands with exceptionally high water duties or whose irrigation contributes to significant problems, including drainage.

(2) Facilitate use of available recycled water that otherwise would not be used beneficially, meets all health and safety criteria, and does not harm crops or soils.

(3) Facilitate the financing of capital improvements for on-farm irrigation systems.

(4) Implement an incentive pricing structure that promotes one or more of the following goals:

(A) More efficient water use at the farm level.

(B) Conjunctive use of groundwater.

(C) Appropriate increase of groundwater recharge.

(D) Reduction in problem drainage.

(E) Improved management of environmental resources.

(F) Effective management of all water sources throughout the year by adjusting seasonal pricing structures based on current conditions.

(5) Expand line or pipe distribution systems, and construct regulatory reservoirs to increase distribution system flexibility and capacity, decrease maintenance, and reduce seepage.

(6) Increase flexibility in water ordering by, and delivery to, water customers within operational limits.

(7) Construct and operate supplier spill and tailwater recovery systems.

(8) Increase planned conjunctive use of surface water and groundwater within the supplier service area.

(9) Automate canal control structures.

(10) Facilitate or promote customer pump testing and evaluation.

(11) Designate a water conservation coordinator who will develop and implement the water management plan and prepare progress reports.

(12) Provide for the availability of water management services to water users. These services may include, but are not limited to, all of the following:

(A) On-farm irrigation and drainage system evaluations.

(B) Normal year and real-time irrigation scheduling and crop evapotranspiration information.

(C) Surface water, groundwater, and drainage water quantity and quality data.

(D) Agricultural water management educational programs and materials for farmers, staff, and the public.

(13) Evaluate the policies of agencies that provide the supplier with water to identify the potential for institutional changes to allow more flexible water deliveries and storage.

(14) Evaluate and improve the efficiencies of the supplier's pumps.

(d) Agricultural water suppliers shall include in the agricultural water management plans required pursuant to Part 2.8 (commencing with Section 10800) a report on which efficient water management practices have been implemented and are planned to be implemented, an estimate of the water use efficiency improvements that have occurred since the last report, and an estimate of the water use efficiency improvements estimated to occur five and 10 years in the future. If an agricultural water supplier determines that an efficient water management practice is not locally cost effective or technically feasible, the supplier shall submit information documenting that determination.

(e) The data shall be reported using a standardized form developed pursuant to Section 10608.52.

(f) An agricultural water supplier may meet the requirements of subdivisions (d) and (e) by submitting to the department a water conservation plan submitted to the United States Bureau of Reclamation that meets the requirements described in Section 10828.

(g) On or before December 31, 2013, December 31, 2016, and December 31, 2021, the department, in consultation with the board, shall submit to the Legislature a report on the agricultural efficient water management practices that have been implemented and are planned to be implemented and an assessment of the manner in which the implementation of those efficient water management practices has affected and will affect agricultural operations, including estimated water use efficiency improvements, if any.

(h) The department may update the efficient water management practices required pursuant to subdivision (c), in consultation with the Agricultural Water Management Council, the United States Bureau of Reclamation, and the board. All efficient water management practices for agricultural water use pursuant to this chapter shall be adopted or revised by the department only after the department conducts public hearings to allow participation of the diverse geographical areas and interests of the state.

(i) (1) The department shall adopt regulations that provide for a range of options that agricultural water suppliers may use or implement to comply with the measurement requirement in paragraph (1) of subdivision (b).

(2) The initial adoption of a regulation authorized by this subdivision is deemed to address an emergency, for purposes of Sections 11346.1 and 11349.6 of the Government Code, and the department is hereby exempted for that purpose from the requirements of subdivision (b) of Section 11346.1 of the Government Code. After the initial adoption of an emergency regulation pursuant to this subdivision, the department shall not request approval from the Office of Administrative Law to readopt the regulation as an emergency regulation pursuant to Section 11346.1 of the Government Code.

Chapter 5. Sustainable Water Management

10608.50. (a) The department, in consultation with the board, shall promote implementation of regional water resources management practices through increased incentives and removal of barriers consistent with state and federal law. Potential changes may include, but are not limited to, all of the following:

(1) Revisions to the requirements for urban and agricultural water management plans.

(2) Revisions to the requirements for integrated regional water management plans.

(3) Revisions to the eligibility for state water management grants and loans.

(4) Revisions to state or local permitting requirements that increase water supply opportunities, but do not weaken water quality protection under state and federal law.

(5) Increased funding for research, feasibility studies, and project construction.

(6) Expanding technical and educational support for local land use and water management agencies.

(b) No later than January 1, 2011, and updated as part of the California Water Plan, the department, in consultation with the board, and with public input, shall propose new statewide targets, or review and update existing statewide targets, for regional water resources management practices, including, but not limited to, recycled water, brackish groundwater desalination, and infiltration and direct use of urban stormwater runoff.

Chapter 6. Standardized Data Collection

10608.52. (a) The department, in consultation with the board, the California Bay-Delta Authority or its successor agency, the State Department of Public Health, and the Public Utilities Commission, shall develop a single standardized water use reporting form to meet the water use information needs of each agency, including the needs of urban water suppliers that elect to determine and report progress toward achieving targets on a regional basis as provided in subdivision (a) of Section 10608.28.

(b) At a minimum, the form shall be developed to accommodate information sufficient to assess an urban water supplier's compliance with conservation targets pursuant to Section 10608.24 and an agricultural water supplier's compliance with implementation of efficient water management practices pursuant to subdivision (a) of Section 10608.48. The form shall accommodate reporting by urban water suppliers on an individual or regional basis as provided in subdivision (a) of Section 10608.28.

Chapter 7. Funding Provisions

10608.56. (a) On and after July 1, 2016, an urban retail water supplier is not eligible for a water grant or loan awarded or administered by the state unless the supplier complies with this part.

(b) On and after July 1, 2013, an agricultural water supplier is not eligible for a water grant or loan awarded or administered by the state unless the supplier complies with this part.

(c) Notwithstanding subdivision (a), the department shall determine that an urban retail water supplier is eligible for a water grant or loan even though the supplier has not met the per capita reductions required pursuant to Section 10608.24, if the urban retail 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 achieving the per capita reductions. The supplier may request grant or loan funds to achieve the per capita reductions to the extent the request is consistent with the eligibility requirements applicable to the water funds.

(d) Notwithstanding subdivision (b), the department shall determine that an agricultural water supplier is eligible for a water grant or loan even though the supplier is not implementing all of the efficient water management practices described in Section 10608.48, if the agricultural 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 efficient water management practices. The supplier may request grant or loan funds to implement the efficient water management practices to the extent the request is consistent with the eligibility requirements applicable to the water funds.

(e) Notwithstanding subdivision (a), the department shall determine that an urban retail water supplier is eligible for a water grant or loan even though the supplier has not met the per capita reductions required pursuant to Section 10608.24, if the urban retail water supplier has submitted to the department for approval documentation demonstrating that its entire service area qualifies as a disadvantaged community.

(f) The department shall not deny eligibility to an urban retail water supplier or agricultural water supplier in compliance with the requirements of this part and Part 2.8 (commencing with Section 10800), 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 requirements of this part or Part 2.8 (commencing with Section 10800).

10608.60. (a) It is the intent of the Legislature that funds made available by Section 75026 of the Public Resources Code should be expended, consistent with Division 43 (commencing with Section 75001) of the Public Resources Code and upon appropriation by the Legislature, for grants to implement this part. In the allocation of funding, it is the intent of the

Legislature that the department give consideration to disadvantaged communities to assist in implementing the requirements of this part.

(b) It is the intent of the Legislature that funds made available by Section 75041 of the Public Resources Code, should be expended, consistent with Division 43 (commencing with Section 75001) of the Public Resources Code and upon appropriation by the Legislature, for direct expenditures to implement this part.

Chapter 8. Quantifying Agricultural Water Use Efficiency

10608.64. The department, in consultation with the Agricultural Water Management Council, academic experts, and other stakeholders, shall develop a methodology for quantifying the efficiency of agricultural water use. Alternatives to be assessed shall include, but not be limited to, determination of efficiency levels based on crop type or irrigation system distribution uniformity. On or before December 31, 2011, the department shall report to the Legislature on a proposed methodology and a plan for implementation. The plan shall include the estimated implementation costs and the types of data needed to support the methodology. Nothing in this section authorizes the department to implement a methodology established pursuant to this section.

SEC. 2. Section 10631.5 of the Water Code is amended to read:

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.

SEC. 3. Part 2.8 (commencing with Section 10800) of Division 6 of the Water Code is repealed.

SEC. 4. Part 2.8 (commencing with Section 10800) is added to Division 6 of the Water Code, to read:

PART 2.8. AGRICULTURAL WATER MANAGEMENT PLANNING

Chapter 1. General Declarations and Policy

10800. This part shall be known and may be cited as the Agricultural Water Management Planning Act.

10801. The Legislature finds and declares all of the following:

(a) The waters of the state are a limited and renewable resource.

(b) The California Constitution requires that water in the state be used in a reasonable and beneficial manner.

(c) Urban water districts are required to adopt water management plans.

(d) The conservation of agricultural water supplies is of great statewide concern.

(e) There is a great amount of reuse of delivered water, both inside and outside the water service areas.

(f) Significant noncrop beneficial uses are associated with agricultural water use, including streamflows and wildlife habitat.

(g) Significant opportunities exist in some areas, through improved irrigation water management, to conserve water or to reduce the quantity of highly saline or toxic drainage water.

(h) Changes in water management practices should be carefully planned and implemented to minimize adverse effects on other beneficial uses currently being served.

(i) Agricultural water suppliers that receive water from the federal Central Valley Project are required by federal law to prepare and implement water conservation plans.

(j) Agricultural water users applying for a permit to appropriate water from the board are required to prepare and implement water conservation plans.

10802. The Legislature finds and declares that all of the following are the policies of the state:

(a) The conservation of water shall be pursued actively to protect both the people of the state and the state's water resources.

(b) The conservation of agricultural water supplies shall be an important criterion in public decisions with regard to water.

(c) Agricultural water suppliers shall be required to prepare water management plans to achieve conservation of water.

Chapter 2. Definitions

10810. Unless the context otherwise requires, the definitions set forth in this chapter govern the construction of this part.

10811. "Agricultural water management plan" or "plan" means an agricultural water management plan prepared pursuant to this part.

10812. "Agricultural water supplier" has the same meaning as defined in Section 10608.12.

10813. "Customer" means a purchaser of water from a water supplier who uses water for agricultural purposes.

10814. "Person" means any individual, firm, association, organization, partnership, business, trust, corporation, company, public agency, or any agency of that entity.

10815. "Public agency" means any city, county, city and county, special district, or other public entity.

10816. "Urban water supplier" has the same meaning as set forth in Section 10617.

10817. "Water conservation" means the efficient management of water resources for beneficial uses, preventing waste, or accomplishing additional benefits with the same amount of water.

Chapter 3. Agricultural Water Management Plans

Article 1. General Provisions

10820. (a) An agricultural water supplier shall prepare and adopt an agricultural water management plan in the manner set forth in this chapter on or before December 31, 2012, and shall update that plan on December 31, 2015, and on or before December 31 every five years thereafter.

(b) Every supplier that becomes an agricultural water supplier after December 31, 2012, shall prepare and adopt an agricultural water management plan within one year after the date it has become an agricultural water supplier.

(c) A water supplier that indirectly provides water to customers for agricultural purposes shall not prepare a plan pursuant to this part without the consent of each agricultural water supplier that directly provides that water to its customers.

10821. (a) An agricultural water supplier required to prepare a plan pursuant to this part shall notify each city or county within which the supplier provides water supplies that the agricultural water supplier will be preparing the plan or reviewing the plan and considering amendments or changes to the plan. The agricultural water supplier may consult with, and obtain comments from, each city or county that receives notice pursuant to this subdivision.

(b) The amendments to, or changes in, the plan shall be adopted and submitted in the manner set forth in Article 3 (commencing with Section 10840).

Article 2. Contents of Plans

10825. (a) It is the intent of the Legislature in enacting this part to allow levels of water management planning commensurate with the numbers of customers served and the volume of water supplied.

(b) This part does not require the implementation of water conservation programs or practices that are not locally cost effective.

10826. An agricultural water management plan shall be adopted in accordance with this chapter. The plan shall do all of the following:

(a) Describe the agricultural water supplier and the service area, including all of the following:

(1) Size of the service area.

(2) Location of the service area and its water management facilities.

(3) Terrain and soils.

(4) Climate.

(5) Operating rules and regulations.
(6) Water delivery measurements or calculations.
(7) Water rate schedules and billing.
(8) Water shortage allocation policies.
(b) Describe the quantity and quality of water resources of the agricultural water supplier, including all of the following:
(1) Surface water supply.
(2) Groundwater supply.
(3) Other water supplies.
(4) Source water quality monitoring practices.
(5) Water uses within the agricultural water supplier's service area, including all of the following:
(A) Agricultural.
(B) Environmental.
(C) Recreational.
(D) Municipal and industrial.
(E) Groundwater recharge.
(F) Transfers and exchanges.
(G) Other water uses.
(6) Drainage from the water supplier's service area.
(7) Water accounting, including all of the following:
(A) Quantifying the water supplier's water supplies.
(B) Tabulating water uses.
(C) Overall water budget.
(8) Water supply reliability.
(c) Include an analysis, based on available information, of the effect of climate change on future water supplies.
(d) Describe previous water management activities.
(e) Include in the plan the water use efficiency information required pursuant to Section 10608.48.
10827. Agricultural water suppliers that are members of the Agricultural Water Management Council, and that submit water management plans to that council in accordance with the "Memorandum of Understanding Regarding Efficient Water Management Practices By Agricultural Water Suppliers In California," dated January 1, 1999, may submit the water management plans identifying water demand management measures currently being implemented, or scheduled for implementation, to satisfy the requirements of Section 10826.
10828. (a) Agricultural water suppliers that are required to submit water conservation plans to the United States Bureau of Reclamation pursuant to either the Central Valley Project Improvement Act (Public Law 102-575) or the Reclamation Reform Act of 1982, or both, may submit those water conservation plans to satisfy the requirements of Section 10826, if both of the following apply:
(1) The agricultural water supplier has adopted and submitted the water conservation plan to the United States Bureau of Reclamation within the previous four years.

(2) The United States Bureau of Reclamation has accepted the water conservation plan as adequate.

(b) This part does not require agricultural water suppliers that are required to submit water conservation plans to the United States Bureau of Reclamation pursuant to either the Central Valley Project Improvement Act (Public Law 102-575) or the Reclamation Reform Act of 1982, or both, to prepare and adopt water conservation plans according to a schedule that is different from that required by the United States Bureau of Reclamation.

10829. An agricultural water supplier may satisfy the requirements of this part by adopting an urban water management plan pursuant to Part 2.6 (commencing with Section 10610) or by participation in areawide, regional, watershed, or basinwide water management planning if those plans meet or exceed the requirements of this part.

Article 3. Adoption and Implementation of Plans

10840. Every agricultural water supplier shall prepare its plan pursuant to Article 2 (commencing with Section 10825).

10841. Prior to adopting a plan, the agricultural water supplier shall make the proposed plan available for public inspection, and shall hold a public hearing on the plan. Prior to the hearing, notice of the time and place of hearing shall be published within the jurisdiction of the publicly owned agricultural water supplier pursuant to Section 6066 of the Government Code. A privately owned agricultural water supplier shall provide an equivalent notice within its service area and shall provide a reasonably equivalent opportunity that would otherwise be afforded through a public hearing process for interested parties to provide input on the plan. After the hearing, the plan shall be adopted as prepared or as modified during or after the hearing.

10842. An agricultural water supplier shall implement the plan adopted pursuant to this chapter in accordance with the schedule set forth in its plan, as determined by the governing body of the agricultural water supplier.

10843. (a) An agricultural water supplier shall submit to the entities identified in subdivision (b) a copy of its plan no later than 30 days after the adoption of the plan. Copies of amendments or changes to the plans shall be submitted to the entities identified in subdivision (b) within 30 days after the adoption of the amendments or changes.

(b) An agricultural water supplier shall submit a copy of its plan and amendments or changes to the plan to each of the following entities:

(1) The department.

(2) Any city, county, or city and county within which the agricultural water supplier provides water supplies.

(3) Any groundwater management entity within which jurisdiction the agricultural water supplier extracts or provides water supplies.

(4) Any urban water supplier within which jurisdiction the agricultural water supplier provides water supplies.

(5) Any city or county library within which jurisdiction the agricultural water supplier provides water supplies.

(6) The California State Library.

(7) Any local agency formation commission serving a county within which the agricultural water supplier provides water supplies.

10844. (a) Not later than 30 days after the date of adopting its plan, the agricultural water supplier shall make the plan available for public review on the agricultural water supplier's Internet Web site.

(b) An agricultural water supplier that does not have an Internet Web site shall submit to the department, not later than 30 days after the date of adopting its plan, a copy of the adopted plan in an electronic format. The department shall make the plan available for public review on the department's Internet Web site.

10845. (a) The department shall prepare and submit to the Legislature, on or before December 31, 2013, and thereafter in the years ending in six and years ending in one, a report summarizing the status of the plans adopted pursuant to this part.

(b) The report prepared by the department shall identify the outstanding elements of any plan adopted pursuant to this part. The report shall include an evaluation of the effectiveness of this part in promoting efficient agricultural water management practices and recommendations relating to proposed changes to this part, as appropriate.

(c) The department shall provide a copy of the report to each agricultural water supplier that has submitted its plan to the department. The department shall also prepare reports and provide data for any legislative hearing designed to consider the effectiveness of plans submitted pursuant to this part.

(d) This section does not authorize the department, in preparing the report, to approve, disapprove, or critique individual plans submitted pursuant to this part.

Chapter 4. Miscellaneous Provisions

10850. (a) Any action or proceeding to attack, review, set aside, void, or annul the acts or decisions of an agricultural water supplier on the grounds of noncompliance with this part shall be commenced as follows:

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

(2) 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 120 days after submitting the plan or amendments to the plan to entities in accordance with Section 10844 or the taking of that action.

(b) In an action or proceeding to attack, review, set aside, void, or annul a plan, or an action taken pursuant to the plan by an agricultural 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 agricultural water supplier has not proceeded in a manner required by law, or if the action by the agricultural water supplier is not supported by substantial evidence.

10851. 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. This part does not exempt projects for implementation of the plan or for expanded or additional water supplies from the California Environmental Quality Act.

10852. An agricultural water supplier is not eligible for a water grant or loan awarded or administered by the state unless the supplier complies with this part.

10853. No agricultural water supplier that provides water to less than 25,000 irrigated acres, excluding recycled water, shall be required to implement the requirements of this part or Part 2.55 (commencing with Section 10608) unless sufficient funding has specifically been provided to that water supplier for these purposes.

SEC. 5. This act shall take effect only if Senate Bill 1 and Senate Bill 6 of the 2009–10 Seventh Extraordinary Session of the Legislature are enacted and become effective.

O

F BULLETIN 118 BASIN DESCRIPTIONS

Coastal Plain of Los Angeles Groundwater Basin, Central Subbasin

- Groundwater Basin Number: 4-11.04
- County: Los Angeles
- Surface Area: 177,000 acres (277 square miles)

Basin Boundaries and Hydrology

The Central Subbasin occupies a large portion of the southeastern part of the Coastal Plain of Los Angeles Groundwater Basin. This subbasin is commonly referred to as the "Central Basin" and is bounded on the north by a surface divide called the La Brea high, and on the northeast and east by emergent less permeable Tertiary rocks of the Elysian, Repetto, Merced and Puente Hills. The southeast boundary between Central Basin and Orange County Groundwater Basin roughly follows Coyote Creek, which is a regional drainage province boundary. The southwest boundary is formed by the Newport Inglewood fault system and the associated folded rocks of the Newport Inglewood uplift. The Los Angeles and San Gabriel Rivers drain inland basins and pass across the surface of the Central Basin on their way to the Pacific Ocean. Average precipitation throughout the subbasin ranges from 11 to 13 inches with an average of around 12 inches.

Hydrogeologic Information

Water Bearing Formations

Throughout the Central Basin, groundwater occurs in Holocene and Pleistocene age sediments at relatively shallow depths. The Central Basin is historically divided into forebay and pressure areas. The Los Angeles forebay is located in the northern part of the Central Basin where the Los Angeles River enters the Central Basin through the Los Angeles Narrows from the San Fernando Groundwater Basin. The Montebello forebay extends southward from the Whittier Narrows where the San Gabriel River encounters the Central Basin and is the most important area of recharge in the subbasin. Both forebays have unconfined groundwater conditions and relatively interconnected aquifers that extend up to 1,600 feet deep to provide recharge to the aquifer system of this subbasin (DWR 1961). The Whittier area extends from the Puente Hills south and southwest to the axis of the Santa Fe Springs-Coyote Hills uplift and contains up to 1,000 feet of freshwater-bearing sediments. The Central Basin pressure area is the largest of the four divisions, and contains many aquifers of permeable sands and gravels separated by semi-permeable to impermeable sandy clay to clay, that extend to about 2,200 feet below the surface (DWR 1961). The estimated average specific yield of these sediments is around 18 percent. Throughout much of the subbasin, the aquifers are confined, but areas with semi-permeable aquicludes allow some interaction between the aquifers (DWR 1961).

The main productive freshwater-bearing sediments are contained within Holocene alluvium and the Pleistocene Lakewood and San Pedro Formations (DWR 1961). Throughout most of the subbasin, the near surface Bellflower aquiclude restricts vertical percolation into the Holocene age Gaspur aquifer and other underlying aquifers, and creates local semi-perched groundwater

conditions. The main additional productive aquifers in the subbasin are the Gardena and Gage aquifers within the Lakewood Formation and the Silverado, Lynwood and Sunnyside aquifers within the San Pedro Formation (DWR 1961). Specific yield of deposits in this subbasin range up to 23 percent in the Montebello forebay, 29 percent in the Los Angeles forebay, and 37 percent in the Central Basin pressure area (DWR 1961). Historically, groundwater flow in the Central Basin has been from recharge areas in the northeast part of the subbasin, toward the Pacific Ocean on the southwest. However, pumping has lowered the water level in the Central Basin and water levels in some aquifers are about equal on both sides of the Newport-Inglewood uplift, decreasing subsurface outflow to the West Coast Subbasin (DWR 1961).

There are several principal aquifers/aquicludes present in this subbasin.

Aquifers/ Aquiclude	Age	Formation	Lithology	Maximum Thickness (feet)
Gaspur	Holocene		Coarse sand, gravel	120
Semiperched	Holocene		Sand, gravel	60
Bellflower	Pleistocene	Lakewood Formation	Clay, sandy clay	140
Gardena	Pleistocene	Lakewood Formation	Sand, gravel	160
Gage			Sand	120
Silverado	Lower Pleistocene	San Pedro Formation	Sandy gravel	300
Lynwood			Coarse sand and gravel	150
Sunnyside				350

Restrictive Structures

Many faults, folds and uplifted basement areas affect the water-bearing rocks in the Central Basin. Most of these structures form minor restrictions to groundwater flow in the subbasin. The strongest effect on groundwater occurs along the southwest boundary to the Central Subbasin. The faults and folds of the Newport – Inglewood uplift are partial barriers to movement of groundwater from the Central Basin to the West Coast Basin (DWR 1961). The La Brea high is a system of folded, uplifted and eroded Tertiary basement rocks. Because the San Pedro Formation is eroded from this area, subsurface flow southward from the Hollywood Basin is restricted to the Lakewood formation (DWR 1961). The Whittier Narrows is an eroded gap through the Merced and Puente Hills that provides both surface and subsurface inflow to the Central Basin (DWR 1961). The Rio Hondo, Pico, and Cemetery faults are northeast-trending faults that project into the gap and displace aquifers. The trend of these faults parallels the local groundwater flow and do not act as significant barriers to groundwater flow (DWR 1961).

Recharge Areas

Groundwater enters the Central Basin through surface and subsurface flow and by direct percolation of precipitation, stream flow, and applied water; and replenishes the aquifers dominantly in the forebay areas where permeable sediments are exposed at ground surface (DWR 1961). Natural replenishment of the subbasin's groundwater supply is largely from surface inflow through Whittier Narrows (and some underflow) from the San Gabriel Valley. Percolation into the Los Angeles Forebay Area is restricted due to paving and development of the surface of the forebay. Imported water purchased from Metropolitan Water District and recycled water from Whittier and San Jose Treatment Plants are used for artificial recharge in the Montebello Forebay at the Rio Hondo and San Gabriel River spreading grounds (DWR 1999). Saltwater intrusion is a problem in areas where recent or active river systems have eroded through the Newport Inglewood uplift. A mound of water to form a barrier is formed by injection of water in wells along the Alamitos Gap (DWR 1999).

Groundwater Level Trends

Water levels varied over a range of about 25 feet between 1961 and 1977 and have varied through a range of about 5 to 10 feet since 1996. Most water wells show levels in 1999 that are in the upper portion of their recent historical range.

Groundwater Storage

Groundwater Storage Capacity. Total storage capacity of the Central Basin is 13,800,000 (DWR 1961).

Groundwater in Storage.

Groundwater Budget (Type A)

A complete water budget could not be constructed due to the lack of data available. Recharge to the subbasin is accomplished through both natural and artificial recharge. The Watermaster reported natural recharge for the subbasin to be 31,950 af and artificial recharge to be 63,688 af for 1998 (DWR 1999). Additionally, the subbasin receives 27,000 af/yr of water through the Whittier Narrows from the San Gabriel Valley Basin in the form of subsurface flow (SWRB 1952). Urban extractions for the subbasin were 204,335 af in 1998 (DWR 1999).

Groundwater Quality

Characterization. TDS content in the subbasin ranges from 200 to 2,500 mg/l according to data from 293 public supply wells. The average for these 293 wells is 453 mg/l.

I

Impairments.

Water Quality in Public Supply Wells

Constituent Group[1]	Number of wells sampled[2]	Number of wells with a concentration above an MCL[3]
Inorganics – Primary	316	15
Radiological	315	1
Nitrates	315	2
Pesticides	322	0
VOCs and SVOCs	344	43
Inorganics – Secondary	316	113

[1] A description of each member in the constituent groups and a generalized discussion of the relevance of these groups are included in *California's Groundwater – Bulletin 118* by DWR (2003).
[2] Represents distinct number of wells sampled as required under DHS Title 22 program from 1994 through 2000.
[3] Each well reported with a concentration above an MCL was confirmed with a second detection above an MCL. This information is intended as an indicator of the types of activities that cause contamination in a given basin. It represents the water quality at the sample location. It does not indicate the water quality delivered to the consumer. More detailed drinking water quality information can be obtained from the local water purveyor and its annual Consumer Confidence Report.

Well Production characteristics

	Well yields (gal/min)
Municipal/Irrigation	
	Total depths (ft)
Domestic	
Municipal/Irrigation	

Active Monitoring Data

Agency	Parameter	Number of wells /measurement frequency
USGS	Groundwater levels	90
DWR	Groundwater levels	87
Los Angeles County Public Works	Groundwater levels	212 / Bi-monthly
USGS	Miscellaneous water quality	64
Department of Health Services and cooperators	Title 22 water quality	294

Basin Management

Groundwater management:	Central Basin was adjudicated in 1965, and the Department of Water Resources was appointed Watermaster. Every month extractions are reported to the Watermaster by each individual pumper. This allows the Watermaster to regulate the water rights of the subbasin. (DWR 1999)
Water agencies	
Public	City of Bellflower, Bellflower-Somerset MWC, City of Compton, City of Huntington Park, City of Long Beach, City of Los Angeles DWP, City of Montebello, City of Paramount, City of Pico Rivera, City of Santa Fe Springs, Sativa LA County WD, City of Signal Hill, South Montebello ID, City of South Gate, City of Vernon, City of Whittier. (DWR 1999)
Private	California-American Water Company, Montebello Land and Water Company, Bellflower Home Garden Water Co., California Water Service, Lynwood Park MWC, Maywood MWC, Park Water Company, Pearless Water Company, San Gabriel Valley Water Company, Southern California Water Company, Tract No. 180 Water Company, Tract 349 MWC, Western Water Company.(DWR 1999)

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Water Replenishment District of Southern California. 2000. *Annual Report on Results of Water Quality Monitoring Water Year 1998-1999.*

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Errata

Changes made to the basin description will be noted here.

G CENTRAL BASIN ADJUDICATION JUDGMENT

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SUPERIOR COURT OF THE STATE OF CALIFORNIA

FOR THE COUNTY OF LOS ANGELES

CENTRAL AND WEST BASIN WATER REPLENISHMENT DISTRICT, etc., Plaintiff, v. CHARLES E. ADAMS, et al., Defendants.	No. 786,656 SECOND AMENDED JUDGMENT (Declaring and establishing water rights in Central Basin and enjoining extractions therefrom in excess of specified quantities.)
CITY OF LAKEWOOD, a municipal corporation, Cross-Complainant, v. CHARLES E. ADAMS, et al., Cross-Defendants.	

The above-entitled matter duly and regularly came on for trial in Department 73 of the above-entitled Court (having been transferred thereto from Department 75 by order of the presiding Judge), before the Honorable Edmund M. Moor, specially assigned Judge, on May 17, 1965, at 10:00 a.m. Plaintiff was represented by its attorneys BEWLEY, KNOOP, LASSLEBEN & WHELAN,

MARTIN E. WHELAN, JR., and EDWIN H. VAIL, JR., and cross-complainant was represented by its attorney JOHN S. TODD. Various defendants and cross-defendants were also represented at the trial. Evidence both oral and documentary was introduced. The trial continued from day to day on May 17, 18, 19, 20, 21 and 24, 1965, at which time it was continued by order of Court for further trial on August 25, 1965, at 10:00 a.m. in Department 73 of the above-entitled Court; whereupon, having then been transferred to Department 74, trial was resumed in Department 74 on August 25, 1965, and then continued to August 27, 1965 at 10:00 a.m. in the same Department. On the latter date, trial was concluded and the matter submitted. Findings of fact and conclusions of law have heretofore been signed and filed. Pursuant to the reserved and continuing jurisdiction of the court under the judgment herein, certain amendments to said judgment and temporary orders have heretofore been made and entered. Continuing jurisdiction of the court for this action is currently assigned to HON. FLORENCE T. PICKARD. Motion of Plaintiff herein for further amendments to the judgment, notice thereof and of the hearing thereon having been duly and regularly given to all parties, came on for hearing in Department 38 of the above-entitled court on MAY 6, 1991 at 8:45 a.m. before said HONORABLE PICKARD. Plaintiff was represented by its attorneys LAGERLOF, SENECAL, DRESCHER & SWIFT, by William F. Kruse. Various defendants were represented by counsel of record appearing on the Clerk's records. Hearing thereon was concluded on that date. The within "Second Amended Judgment" incorporates amendments and orders heretofore made to the extent presently operable and

amendments pursuant to said last mentioned motion. To the extent this Amended Judgment is a restatement of the judgment as heretofore amended, it is for convenience in incorporating all matters in one document, is not a readjudication of such matters and is not intended to reopen any such matters. As used hereinafter the word "judgment" shall include the original judgment as amended to date. In connection with the following judgment, the following terms, words, phrases and clauses are used by the Court with the following meanings:

"Administrative Year" means the water year until operation under the judgment is converted to a fiscal year pursuant to Paragraph 4, Part I, p. 53 hereof, whereupon it shall mean a fiscal year, including the initial 'short fiscal year' therein provided.

"Allowed Pumping Allocation" is that quantity in acre feet which the Court adjudges to be the maximum quantity which a party should be allowed to extract annually from Central Basin as set forth in Part I hereof, which constitutes 80% of such party's Total Water Right.

"Allowed Pumping Allocation for a particular Administrative year" and "Allowed Pumping Allocation in the following Administrative year" and similar clauses, mean the Allowed Pumping Allocation as increased in a particular Administrative year by any authorized carryovers pursuant to Part III, Subpart A of this judgment and as reduced by reason of any over-extractions in a previous Administrative year.

"Artificial Replenishment" is the replenishment of Central Basin achieved through the spreading of imported or reclaimed

water for percolation thereof into Central Basin by a governmental agency.

"Base Water Right" is the highest continuous extractions of water by a party from Central Basin for a beneficial use in any period of five consecutive years after the commencement of overdraft in Central Basin and prior to the commencement of this action, as to which there has been no cessation of use by that party during any subsequent period of five consecutive years. As employed in the above definition, the words "extractions of water by a party" and "cessation of use by that party" include such extractions and cessations by any predecessor or predecessors in interest.

"Calendar Year" is the twelve month period commencing January 1 of each year and ending December 31 of each year.

"Central Basin" is the underground water basin or reservoir underlying Central Basin Area, the exterior boundaries of which Central Basin are the same as the exterior boundaries of Central Basin Area.

"Central Basin Area" is the territory described in Appendix "1" to this judgment, and is a segment of the territory comprising Plaintiff District.

"Declared water emergency" shall mean a period commencing with the adoption of a resolution of the Board of Directors of the Central and West Basin Water Replenishment District declaring that conditions within the Central Basin relating to natural and imported supplies of water are such that, without implementation of the water emergency provisions of this Judgment, the water resources of the Central Basin risk degradation. In making such

declaration, the Board of Directors shall consider any information and requests provided by water producers, purveyors and other affected entities and may, for that purpose, hold a public hearing in advance of such declaration. A Declared Water Emergency shall extend for one (1) year following such resolution, unless sooner ended by similar resolution.

"Extraction", "extractions", "extracting", "extracted", and other variations of the same noun and verb, mean pumping, taking, diverting or withdrawing ground water by any manner or means whatsoever from Central Basin.

"Fiscal Year" is the twelve (12) month period July 1 through June 30 following.

"Imported Water" means water brought into Central Basin Area from a non-tributary source by a party and any predecessors in interest, either through purchase directly from The Metropolitan Water District of Southern California or by direct purchase from a member agency thereof, and additionally as to the Department of Water and Power of the City of Los Angeles, water brought into Central Basin Area by that party by means of the Owens River Aqueduct.

"Imported Water Use Credit" is the annual amount, computed on a calendar year basis, of imported water which any party and any predecessors in interest, who have timely made the required filings under Water Code Section 1005.1, have imported into Central Basin Area in any calendar year and subsequent to July 9, 1951, for beneficial use therein, but not exceeding the amount by which that party and any predecessors in interest reduces his or their extractions of ground water from Central Basin in that

calendar year from the level of his or their extractions in the preceding calendar year, or in any prior calendar year not earlier than the calendar year 1950, whichever is the greater.

"Natural Replenishment" means and includes all processes other than "Artificial Replenishment" by which water may become a part of the ground water supply of Central Basin.

"Natural Safe Yield" is the maximum quantity of ground water, not in excess of the long term average annual quantity of Natural Replenishment, which may be extracted annually from Central Basin without eventual depletion thereof or without otherwise causing eventual permanent damage to Central Basin as a source of ground water for beneficial use, said maximum quantity being determined without reference to Artificial Replenishment.

"Overdraft" is that condition of a ground water basin resulting from extractions in any given annual period or periods in excess of the long term average annual quantity of Natural Replenishment, or in excess of that quantity which may be extracted annually without otherwise causing eventual permanent damage to the basin.

"Party" means a party to this action. Whenever the term "party" is used in connection with a quantitative water right, or any quantitative right, privilege or obligation, or in connection with the assessment for the budget of the Watermaster, it shall be deemed to refer collectively to those parties to whom are attributed a Total Water Right in Part I of this judgment.

"Person" or "persons" include individuals, partnerships, associations, governmental agencies and corporations, and any and all types of entities.

"Total Water Right" is the quantity arrived at in the same manner as in the computation of "Base Water Right", but including as if extracted in any particular year the Imported Water Use Credit, if any, to which a particular party may be entitled.

"Water" includes only non-saline water, which is that having less than 1,000 parts of chlorides to 1,000,000 parts of water.

"Water Year" is the 12-month period commencing October 1 of each year and ending September 30th of the following year.

In those instances where any of the above-defined words, terms, phrases or clauses are utilized in the definition of any of the other above-defined words, terms, phrases and clauses, such use is with the same meaning as is above set forth.

NOW THEREFORE, IT IS ORDERED, DECLARED, ADJUDGED AND DECREED WITH RESPECT TO THE ACTION AND CROSS-ACTION AS FOLLOWS:

I. DECLARATION AND DETERMINATION OF WATER RIGHTS OF PARTIES; RESTRICTION ON THE EXERCISE THEREOF.[1]

1. Determination of Rights of Parties.

(a) Each party, except defendants, The City of Los Angeles and Department of Water and Power of the City of Los Angeles, whose name is hereinafter set forth in the tabulation at the conclusion of Subpart 3 of Part 1, and after whose name there

[1]Headings in the judgment are for purposes of reference and the language of said headings do not constitute, other than for such purpose, a portion of this judgment.

appears under the column "Total Water Right" a figure other than "0", was the owner of and had the right to extract annually groundwater from Central Basin for beneficial use in the quantity set forth after that party's name under said column "Total Water Right" pursuant to the Judgment as originally entered herein. Attached hereto as Appendix "2" and by this reference made a part hereof as though fully set forth are the water rights of parties and successors in interest as they existed as of the close of the water year ending September 30, 1978 in accordance with the Watermaster Reports on file with this Court and the records of the Plaintiff. This tabulation does not take into account additions or subtractions from any Allowed Pumping Allocation of a producer for the 1978-79 water year, nor other adjustments not representing change in fee title to water rights, such as leases of water rights, nor does it include the names of lessees of landowners where the lessees are exercising the water rights. The exercise of all water rights is subject, however, to the provisions of this Judgment as hereinafter contained. All of said rights are of the same legal force and effect and are without priority with reference to each other. Each party whose name is hereinafter set forth in the tabulation set forth in Appendix "2" of this judgment, and after whose name there appears under the column "Total Water Right" the figure "0" owns no rights to extract any ground water from Central Basin, and has no right to extract any ground water from Central Basin.

(b) Defendant The City of Los Angeles is the owner of the right to extract fifteen thousand (15,000) acre feet per annum of ground water from Central Basin. Defendant Department

of Water and Power of the City of Los Angeles has no right to extract ground water from Central Basin except insofar as it has the right, power, duty or obligation on behalf of defendant The City of Los Angeles to exercise the water rights in Central Basin of defendant The City of Los Angeles. The exercise of said rights are subject, however, to the provisions of this judgment hereafter contained, including but not limited to, sharing with other parties in any subsequent decreases or increases in the quantity of extractions permitted from Central Basin, pursuant to continuing jurisdiction of the Court, on the basis that fifteen thousand (15,000) acre feet bears to the Allowed Pumping Allocations of the other parties.

(c) No party to this action is the owner of or has any right to extract ground water from Central Basin except as herein affirmatively determined.

2. Parties Enjoined as Regards Quantities of Extractions.

(a) Each party, other than The State of California and The City of Los Angeles and Department of Water and Power of The City of Los Angeles, is enjoined and restrained in any Administrative year commencing after the date this judgment becomes final from extracting from Central Basin any quantity of Water greater than the party's Allowed Pumping Allocation as hereinafter set forth next to the name of the party in the tabulation appearing in Appendix 2 at the end of this Judgment, subject to further provisions of this judgment. Subject to such further provisions, the officials, agents and employees of The State of California are enjoined and restrained in any such Administrative year from extracting from Central Basin collectively any quantity of water

greater than the Allowed Pumping Allocation of The State of California as hereinafter set forth next to the name of that party in the same tabulation. Each party adjudged and declared above not to be the owner of and not to have the right to extract ground water from Central Basin is enjoined and restrained in any Administrative year commencing after the date this judgment becomes final from extracting any ground water from Central Basin, except as may be hereinafter permitted to any such party under the Exchange Pool provisions of this judgment.

(b) Defendant The City of Los Angeles is enjoined and restrained in any Administrative year commencing after the date this judgment becomes final from extracting from Central Basin any quantity of water greater than fifteen thousand (15,000) acre feet, subject to further provisions of this judgment, including but not limited to, sharing with other parties in any subsequent decreases or increases in the quantity of extractions permitted from Central Basin by parties, pursuant to continuing jurisdiction of the Court, on the basis that fifteen thousand (15,000) acre feet bears to the Allowed Pumping Allocations of the other parties. Defendant Department of Water and Power of The City of Los Angeles is enjoined and restrained in any Administrative year commencing after the date this judgment becomes final from extracting from Central Basin any quantity of water other than such as it may extract on behalf of defendant The City of Los Angeles, and which extractions, along with any extractions by said City, shall not exceed that quantity permitted by this judgment to that City in any Administrative year. Whenever in this judgment the term "Allowed Pumping

Allocation" appears, it shall be deemed to mean as to defendant The City of Los Angeles the quantity of fifteen thousand (15,000) acre feet.

Name [2]	Total Water Right	Allowed Pumping Allocation
J. P. Abbott, Inc.	21	17
Charles E. Adams (Corty Van Dyke, tenant) (see additional listing below for Charles E. Adams)	8	6
Charles E. Adams and Rhoda E. Adams	5	4
Juan Aguayo and Salome Y. Aguayo	1	1
Aguiar Dairy, Inc.	33	26
Airfloor Company of California, Inc.	1	1
J. N. Albers and Nellie Albers	98	78
Jake J. Alewyn and Mrs. Jake J. Alewyn aka Normalie May Alewyn (see listing under name of Victor E. Gamboni)		
Tom Alger and Hilda Alger	9	7
Clarence M. Alvis and Doris M. Alvis	0	0
American Brake Shoe Company	52	42

[2]Parties and Rights as originally adjudicated

Name	Total Water Right	Allowed Pumping Allocation
American Pipe and Construction Co.	188	150
Anaconda American Brass Company	0	0
Gerrit Anker (see listing under name of Agnes De Vries		
Archdiocese of Los Angeles Education & Welfare Corporation	8	6
George W. Armstrong and Ruth H. Armstrong (Armstrong Poultry Ranch, tenant)	28	22
Artesia Cemetery District	30	24
Artesia Milling Company (see listing under name of Dick Zuidervaart)		
Artesia School District	51	41
Arthur Land Co., Inc.	13	10
Charles Arzouman and Neuart Arzouman	1	1
Associated Southern Investment Company (William R. Morris, George V. Gutierrez and Mrs. Socorro Gutierrez, tenants and licensees)	16	13
The Atchison, Topeka and Santa Fe Railway Co.	124	99
Atkinson Brick Company	11	9
Arthur Atsma (see listing under name of Andrew De Voss)		
B.F.S. Mutual Water Company	183	146
Henry Baar (see listing under name of Steve Stefani, Sr.)		
Vernon E. Bacon (see listing under name of Southern California Edison Company)		

Name	Total Water Right	Allowed Pumping Allocation
Adolph Bader and Gesine Bader (Fred Bader, tenant)	14	11
K. R. Bailey and Virginia R. Bailey	1	1
Dave Bajema (see listing under name of Peter Dotinga)		
Donald L. Baker and Patsy Ruth Baker	5	4
Allen Bakker	0	0
Sam Bangma and Ida Bangma	17	14
Bank of America National Trust and Savings Association, as Trustee of Trust created by Will of Tony V. Freitas, Deceased (Frank A. Gonsalves, tenant)	29	23
Emma Barbaria, as to undivided 1/2 interest; John Barbaria, Jr. and Lorraine Barbaria as to undivided 1/4 interest; and Frank Barbaria as to undivided 1/4 interest (John Barbaria & Sons Dairy, tenant)	27	22
Antonio B. Barcellos and Manuel B. Barcellos	12	10
John Barcelos and Guilhermina Barcelos	16	13
Sam Bartsma and Birdie Bartsma	34	27
Bateson's School of Horticulture, Inc. (see listing under name of John Brown Schools of California, Inc.)		
Bechard Mutual Water Corporation	4	4
Beck Tract Water Company, Inc.	29	23
Iver F. Becklund	1	1
Margaret E. Becklund	1	1
P. T. Beeghly (International Carbonic, Inc., tenant)	1	1
Doutzen Bekendam and Hank Bekendam	0	0
John Bekendam	0	0
Tillie Bekendam	0	0

Name	Total Water Right	Allowed Pumping Allocation
Bell Trailer City (see listing under name of Bennett E. Simmons)	1	1
E. F. Bellenbaum and Marie P. Bellenbaum	32	26
Bellflower Christian School	243	194
Bellflower Home Garden Water Company	111	89
Bellflower Unified School District	2,109	1,687
Bellflower Water Company	11	9
Belmont Water Association	0	0
Tony Beltman	0	0
Berlu Water Company, Inc.	32	26
Jack R. Bettencourt and Bella Bettencourt	151	121
Bigby Townsite Water Co.		
Siegfried Binggeli and Trina L. Binggeli (see listing under name of Paul H. Lussman, Jr.)	0	0
Fred H. Bixby Ranch Company		
Delbert G. Black and Lennie O. Black as to undivided one-half; and Harley Lee, as to undivided one-half	40	32
Bloomfield School District	11	9
Adrian Boer and Julia Boer	5	4
Gerard Boere and Rosalyn Boer		
Henry Boer and Annie Boer (William Offinga & Son, including Sidney Offinga, tenants as to 33 acre feet of water right and 26 acre feet of allowed pumping allocation)	34 30	27 24
John Boere, Jr. and Mary J. Boere	30	24
John Boere, Sr. and Edna Boere (John Boere, Jr., tenant)	30	24
John Boere, Jr. (see also listing under name of Leonard A. Grenier)		

Name	Total Water Right	Allowed Pumping Allocation
Frank Boersma and Angie Boersma	31	25
Gerrit Boersma and Jennie Boersma (George Boersma, tenant)	8	6
Jack Boersma	0	0
Sam Boersma and Berdina Boersma	42	34
Jan Bokma (see listing under name of August Vandenberg)		
Jacob Bollema	0	0
James C. Boogerd (see listing under name of Jake Van Leeuwen, Jr.)		
Bernard William Bootsma, Carrie Agnes Van Dam and Gladys Marie Romberg	12	10
Michel Bordato and Anna M. Bordato (Charlie Vander Kooi, tenant)	12	10
John Borges and Mary Borges, aka Mrs. John Borges (Manuel B. Ourique, tenant)	14	11
Mary Borges, widow of Manuel Borges (Manuel Borges, Jr., tenant)	7	6
Gerrit Bos and Margaret Bos	88	70
Jacob J. Bosma (see listing under name of Sieger Vierstra)		
Peter Bothof	6	5
William Bothof and Antonette Bothof	7	6
Frank Bouma and Myron D. Kolstad	3	3
Ted Bouma and Jeanette Bouma	21	17
Sam Bouman (Arie C. Van Leeuwen, tenant)	8	6
John Brown Schools of California, Inc. (Bateson's School of Horticulture, Inc., tenant)	2	2
M. J. Brown, Jr. and Margaret Brown	0	0
Adrian Bulk and Alice Bulk	20	16

Name	Total Water Right	Allowed Pumping Allocation
Duke Buma and Martha Buma	8	6
Miles A. Burson and Rose Burson	7	6
Calavar Corporation (see listing under name of H R M Land Company)		
California Cotton Oil Corporation	101	81
California Portland Cement Company	0	0
California Rendering Company, Ltd.	149	119
California Water and Telephone Company	2,584	2,067
California Water Service Company (Base Water Right - 13,477)	14, 717	11,774
Candlewood Country Club	184	147
V. Capovilla and Mary Capovilla	0	0
Carmenita School District	9	7
Carson Estate Company	139	111
Paul Carver	0	0
Catalin Corporation of America	13	10
Center City Water Co.	86	69
Central Manufacturing District, Inc. (Louis Guglielmana and Richard Wigboly, tenants)	825	660
Century Center Mutual Water Association	317	254
Century City Mutual Water Company, Ltd.	62	50
Cerritos Junior College District	119	95
Cerritos Park Mutual Water Company	77	62
Challenge Cream & Butter Association	146	117
Chansall Mutual Water Company	101	81
Maynard W. Chapin, as Executor of the Estate of Hugh L. Chapin, deceased	36	29

Name	Total Water Right	Allowed Pumping Allocation
Cherryvale Water Users' Association	14	11
Shigeru Chikami and Jack Chikami doing business as Chikami Bros. Farming (see also listing under name of Southern California Edison Company)	10	8
John Christoffels and Effie Christoffels	14	11
Citrus Grove Heights Water Company	277	222
City Farms Mutual Water Company No. 1	37	30
City Farms Mutual Water Company No. 2	15	12
City of Artesia	30	24
City of Bellflower	60	48
City of Compton	6,511	5,209
City of Downey	5,713	4,570
City of Huntington Park	4,788	3,830
City of Inglewood (Base Water Right - 629)	1,118	894
City of Lakewood	10,631	8,505
City of Long Beach (Base Water Right - 29,876)	33,538	26,830
City of Los Angeles (see paragraph 2 above of this Part I for water rights and restrictions on the exercise thereof of said defendant. See also such reference with respect to Department of Water and Power of the City of Los Angeles.)		
City of Lynwood	6,238	4,990
City of Montebello	260	208
City of Norwalk	613	490
City of Santa Fe Springs	505	404
City of Signal Hill	1,675	1,340

Name	Total Water Right	Allowed Pumping Allocation
City of South Gate	9,942	7,954
City of Vernon	9,008	7,206
City of Whittier	776	621
Allan Clanton and Ina Clanton	80	64
Claretian Jr. Seminary (see listing under name of Dominguez Seminary)		
Dr. Russell B. Clark (see listing under name of Research Building Corporation)		
Jacob Cloo and Grace Cloo	16	13
Clougherty Packing Company	80	64
Coast Packing Company	426	341
Coast Water Company	588	470
Joe A. Coelho, Jr. and Isabel Coelho	5	4
J. H. Coito, Jr.	0	0
John H. Coito and Guilhermina Coito (Zylstra Bros., a partnership consisting of Lammert Zylstra and William Zylstra, tenant)	17	14
J. E. Collinsworth	15	12
Compton Union High School District	48	38
Conservative Water Company (Base Water Right - 4,101)	133	3,306
Container Corporation of America	323	1,058
Nicholas C. Contoas and P. Basil Lambros (Vehicle Maintenance & Painting Corporation, tenant)	1	1
Continental Can Company, Inc.	946	757
Contractors Asphalt Products Company, Inc.	16	13
R. M. Contreras	8	6

Name	Total Water Right	Allowed Pumping Allocation
Copp Equipment Company, Inc. and Humphries Investments Incorporated	7	6
Mary Cordeiro and First Western Bank & Trust Company, as Trustee pursuant to last will and testament of Tony Cordeiro, deceased	46	37
Corporation of the Presiding Bishop of the Church of Jesus Christ of Latter Day Saints (Ray Mitchell, tenant)	39	31
Harry Lee Cotton and Doris L. Cotton	5	4
County of Los Angeles	737	590
County Water Company	280	224
Cowlitz Amusements, Inc. (La Mirada Drive-In Theater, tenant)	4	4
Pete Coy	28	22
Crest Holding Corporation	20	16
Katherine M. Culbertson	2	2
Orlyn L. Culp and Garnetle Culp	21	17
Everett Curry and Marguerite Curry	2	2
D. V. Dairy (see listing under name of Frank C. Leal)		
Dairymen's Fertilizer Co-op, Inc.	1	1
Noble G. Daniels (see listing under name of Harold Marcroft)		
John A. Davis	0	0
Henry De Bie, Jr. and Jessie De Bie	17	14
Clifford S. Deeth	0	0
Ernest De Groot and Dorothy De Groot	81	65
Pete de Groot	15	12
Pier De Groot and Fay De Groot	21	17

Name	Total Water Right	Allowed Pumping Allocation
Martin De Hoog and Adriana De Hoog	12	10
Edward De Jager and Alice De Jager	37	30
Cornelius De Jong and Grace De Jong	13	10
Jake De Jong and Lena De Jong (Frank A. Gonsalves, tenant as to 8 acre-feet of water right)	21	17
William De Kriek (see listing under name of Gerrit Van Dam)		
Del Amo Dairy (see listing under name of Ed Haakma)		
Del Amo Estate Company	0	0
Joe De Marco and Concetta De Marco	1	1
Louis F. De Martini (see listing under name of Southern California Edison Company)		
Mary A. De Mello	16	13
John Den Hollander (see listing under name of James Dykstra)		
Department of Water and Power of The City of Los Angeles, by reason of charter provisions, has the management and control of water rights owned by the City of Los Angeles (see listing under name of City of Los Angeles)		
Ruth E. Dever (Orange County Nursery, Inc., tenant)	0	0
Andrew De Voss and Alice De Voss (Arthur De Voss and Arthur Atsma, tenants)	36	29
Agnes De Vries (Gerrit Anker, tenant)	16	13
Dick De Vries and Theresa De Vries	10	8
Gerrit De Vries and Claziena De Vries	18	14
Gerrit Deyager and Dena Deyager	0	0

Name	Total Water Right	Allowed Pumping Allocation
Lloyd W. Dinkelspiel, Jr. (see listing under name of Florence Hellman Ehrman)		
District VII, Division of Highways of the State of California Department of Public Works (see listing under name of State of California)		
Dominguez Estate Company	0	0
Dominguez Seminary and Claretian Jr. Seminary	111	89
Dominguez Water Corporation	8,012	6,410
Peter Dotinga and Tena Dotinga (Dave Bajema, tenant)	9	7
Robert L. Dougherty	0	0
Downey Cemetery District	21	17
Downey Fertilizer Co. (see listing under name of Downey Land Company)		
Downey Land Company (Downey Fertilizer Co., tenant)	101	81
Downey Valley Water Company	87	70
Jim Drost	0	0
James Dykstra and Dora Dykstra (John Den Hollander, tenant)	6	5
John Dykstra and Wilma Dykstra	52	42
Cor Dyt and Andy Dyt	6	5
Eagle Picher Company	141	113
Gail H. Eagleton	67	54
Florence Hellman Ehrman; I. W. Hellman, Jr.; Frederick J. Hellman; Marco F. Hellman; Clarence E. Heller; Alfred Heller, Elizabeth Heller; Clarence E. Heller, Elinor R. Heller and Wells Fargo Bank, as co-executors of the Estate of Edward H. Heller, deceased; Lloyd W. Dinkelspiel, Jr., William H.		

Name	Total Water Right	Allowed Pumping Allocation
Green and Wells Fargo Bank, as co-executors of the Estate of Lloyd W. Dinkelspiel, deceased; Wells Fargo Bank, as Trustee under the trust created by the Will of Florence H. Dinkelspiel, deceased. (Union Oil Company of California, Lessee as to 190 acre-feet of right and as to 152 acre-feet of allowed pumping allocation)	555	444
El Rancho Unified School District	69	55
Berton Elson (see listing under name of D. P. Winslow)		
John H. Emoto and Shizuko Emoto	0	0
Addie L. Enfield (see listing under name of James L. Stamps)		
John W. England and Consuello England (see listing under name of Jenkins Realty Mutual Water Co.)		
Emma Engler (Morris Weiss, tenant)	10	8
Anthony F. Escobar and Eva M. Escobar (Henry Kampen, tenant)	14	11
Excelsior Union High School District	381	305
Kenneth A. Farris and Wanda Farris	1	1
Federal Ice and Cold Storage Company	92	74
Fred Fekkes (see listing under name of Steve Stefani, Sr.)		
Julius Felsenthal and Mrs. Julius Felsenthal, aka Marga Felsenthal	1	1
Tony Fernandes (see listing under name of U. Stewart Jones)		
Joe C. Ferreira and Carolina Ferreira (Joe C. Ferreira and Joe C. Ferreira, Jr., operators of well facility)	37	30

Name	Total Water Right	Allowed Pumping Allocation
Mary A. Ferreira (Joe Lucas, tenant) (see also listing under name of Jack Gonsalves)	1	1
John Feuz, Jr.	0	0
Fibreboard Paper Products Corporation	1,521	1,217
Abe Fien	0	0
Alfred Fikse, Jr. and Aggie Fikse	2	2
Henry Fikse and Jennie Fikse	4	4
Filtrol Corporation	570	456
The Firestone Tire & Rubber Co.	1,536	1,229
First Western Bank & Trust Co. (see listing under name of Mary Cordeiro)		
Clare Fisher	0	0
Elizabeth Flesch, James Flesch, Margaret Flesch, Theodore Flesch, Ernest D. Roth and Eva Roth, doing business as Norwalk Mobile Lodge	18	14
The Flintkote Company	2,567	2,054
Ford Motor Company	11	9
Robert G. Foreman (see listing under name of Lakewood Pipe Co.)		
Guiseppi Franciosi and Alice Franciosi	2	2
Tony V. Freitas (see listing under name of Bank of America, etc.)		
S. Fujita	0	0
Jun Fukushima (see listing under name of Chige Kawaguchi)		
Paul Fultheim and Helga Fultheim	5	4
Fumi Garden Farms, Inc. (see listing under name of Southern California Edison Company and also under name of George Yamamoto)		

Name	Total Water Right	Allowed Pumping Allocation
Gabby Louise, Inc. (Arthur Gilbert & Associates, tenant)	58	46
Victor E. Gamboni and Barbara H. Gamboni (Jake J. Alewyn and Mrs. Jake J. Alewyn also known as Normalie May Alewyn, tenants as to 13 acre feet of water right and 10 acre feet of allowed pumping allocation)	27	22
Nick Gandolfo and Palmera Gandolfo	5	4
Freddie A. Garrett and Vivian Marie Garrett	6	5
Martha Gatz	15	12
General Dynamics Corporation	675	540
General Telephone Company of California	2	2
Alfred Giacomi and Jennie Giacomi	58	46
Arthur Gilbert & Associates (see listing under name of Gabby Louise Inc.)		
Mary Godinho	0	0
Pauline Godinho (Joe C. Godinho and John C. Godinho, Jr., doing business as Godinho Bros. Dairy, tenants)	31	25
Harry N. Goedhart, Henry Otto Goedhart, Hilbrand John Goedhart, John Goedhart, Otto Goedhart, Jr., Peter Goedhart, and Helen Goedhart Van Eik (Paramount Farms, tenant)	21	17
Reimer Goedhart	12	10
Golden Wool Company	223	178
Albert S. Gonsalves and Caroline D. Gonsalves	10	8
Frank A. Gonsalves (see listing under name of Bank of America National Trust and Savings Association, etc.; and also under name of Jake De Jong)		

Name	Total Water Right	Allowed Pumping Allocation
Jack Gonsalves, Joe Lucas, Pete Koopmans, Manuel M. Souza, Sr., Manuel M. Souza, Jr., Frank M. Souza, Louie J. Souza, and Mary A. Ferreira	55	44
Jack Gonsalves and Mary Gonsalves	31	25
Joaquin Gonsalves and Elvira Gonsalves	27	22
Joe A. Gonsalves and Virginia Gonsalves	12	10
The B. F. Goodrich Company	519	415
The Goodyear Tire & Rubber Company	1,141	913
Eric Gorden and Hilde Gorden	2	2
Fern Ethyl Gordon as to an undivided 1/2 interest; Fay G. Tawzer and Lawrence R. Tawzer, as to an undivided 1/2 interest	17	14
Huntley L. Gordon (appearing by and through United California Bank, as Conservator of the Estate of Huntley L. Gordon)	41	33
Robert E. Gordon	5	4
Joe Gorzeman and Elsie Gorzeman	13	10
Florence M. Graham	7	6
Marie Granger	0	0
Great Western Malting Company	448	358
William H. Green (see listing under name of Florence Hellman Ehrman)		
Greene-Howard Petroleum Corporation (see listing under name of Hathaway Company)		
John H. Gremmius and Henry W. Gremmius dba Henry and John Gremmius	0	0
Leonard A. Grenier and Marie Louise Grenier (John Boere, Jr., tenant)	10	8
Florence Guerrero	2	2

Name	Total Water Right	Allowed Pumping Allocation
Louis Guglielmana (see listing under name of Central Manufacturing District, Inc.)		
George V. Gutierrez and Mrs. Socorro Gutierrez (see listing under name of Associated Southern Investment Company)		
Salvatore Gutierrez (see listing under name of Southern California Edison Company)		
H. J. S. Mutual Water Co.	63	50
H R M Land company (Harron, Rickard & McCone Company of Southern California and Calavar Corporation, tenants)	3	3
Gerrit Haagsma and Mary Haagsma	10	8
Ed Haakma and Sjana Haakma (Del Amo Dairy, tenant; Ed Haakma and Pete Vander Kooi, being partners of said Del Amo Dairy)	28	22
Verney Haas and Adelyne Haas	4	4
William H. Hadley and Grace Hadley	4	4
Henry C. Haflinger and Emily Haflinger	10	8
Clarence Theodore Halburg	3	3
Fred Hambarian	2	2
Henry Hamstra and Nelly Hamstra	33	26
Raymond Hansen and Mary Hansen	12	10
Earl Haringa; Evert Veenendaal and Gertrude Veenendaal	22	18
Antoine Harismendy and Claire Harismendy	0	0
Harron, Rickard & McCone Company of Southern California (see listing under name of H R M Land Company)		
Jack D. Hastings	0	0
Kameko Hatanaka	9	7

Name	Total Water Right	Allowed Pumping Allocation
Kazuo Hatanaka (Minoru Yoshijima, tenant)	10	8
Masakazu Hatanaka, Isao Hatanaka, and Kenichi Hatanaka	5	4
Mrs. Motoye Hatanaka	0	0
Hathaway Company, Richard F. Hathaway, Julian I. Hathaway, and J. Elwood Hathaway (Greene-Howard Petroleum Corporation, tenant utilizing less than 1 acre foot per year)	70	56
Clarence E. Heller; Alfred Heller; Elizabeth Heller; Clarence E. Heller; Elinor R. Heller, as co-executors of the Estate of Edward H. Heller, deceased (see listing under name of Florence Hellman Ehrman)		
I. W. Hellman, Jr.; Frederick J. Hellman; Marco F. Hellman (see listing under name of Florence Hellman Ehrman)		
Ralph Hicks	0	0
Alfred V. Highstreet and Evada V. Highstreet	10	8
John Highstreet and Eileen M. Highstreet	9	7
Bob Hilarides and Maaike Hilarides (Frank Hilarides, tenant)	51	41
John Hilarides and Maria Hilarides	26	21
Hajime Hirashima (see listing under name of Masaru Uyeda)		
Willis G. Hix	1	1
Henry H. Hoffman and Apolonia Hoffman	12	10
Dick Hofstra	0	0
Andrew V. Hohn and Mary G. Hohn	1	1
Kyle R. Holmes and Grace Ellen Holmes	20	16
Home Water Company	35	28

Name	Total Water Right	Allowed Pumping Allocation
Manuel L. Homen	17	14
Mrs. Paul Y. Homer (see listing under name of Mrs. Paul Y. Homer (King).)		
Cornelis Hoogland and Alice Hoogland	15	12
Art Hop, Jr.	0	0
Art Hop, Sr. and Johanna Hop (G. A. Van Beek, tenant)	5	4
Andrew Hop, Jr. and Muriel Hop	33	26
Theodore R. Houseman and Leona M. Houseman	14	11
Humphries Investments Incorporated (see listing under name of Copp Equipment Company, Inc.)		
Albert Huyg and Marie Huyg	22	18
Hygenic Dairy Farms, Inc.	0	0
Pete W. Idsinga and Annie Idsinga	13	10
Miss Alice M. Imbert	1	1
Industrial Asphalt of California, Inc.	116	93
Inglewood Park Cemetery Association	285	228
International Carbonic, Inc. (see listing under name of P. T. Beeghly)		
Jugora Ishii and Mumeno Ishii (Ishii Brothers, tenant)	10	8
Robert J. Jamison and Betty Jamison	7	6
Jenkins Realty Mutual Water Co. (Clyde H. Jenkins, Minnie R. Jenkins, Mary Wilcox, Ruby F. Marchbank, Robert B. Marchbank, John W. England, and Consuello England, shareholders	10	8
John-Wade Co.	1	1
Henry S. Jones and Madelynne Jones	1	1

Name	Total Water Right	Allowed Pumping Allocation
U. Stewart Jones and Dorothy E. Jones (Tony Fernandes, tenant)	1	1
Harold Jongsma and Mary N. Jongsma	65	52
W. P. Jordan (see listing under name of Henry Van Ruiten)		
Dave Jorritsma and Elizabeth Jorritsma	27	22
Christine Joseph (see listing under name of Helen Wolfsberger)		
Junior Water Co., Inc.	737	590
Kal Kan Foods, Inc.	120	96
Kalico, Inc.	4	4
Hagop Kalustian (11 acre feet of total water right attributable to well located at 6629 South Street, Lakewood and reported to plaintiff under Producer No. 3925. 2 acre feet of total water right attributable to portion of property not sold to State of California formerly served by well located at 10755 Artesia Blvd., Artesia, the production of which well was reported to plaintiff under Producer No. 4030)	13	10
Fritz Kampen and Clare Kampen	14	11
William Kamstra and Bertha Kamstra	35	28
Henry Kampen (see listing under name of Anthony Escobar)		
L. Kauffman Company, Inc. (see listing under name of Lorraine K. Meyberg)		
Chige Kawaguchi and Masao Kawaguchi (Jun Fukushima, tenant)	4	4
King Kelley Marmalade Co. (see listing under name of Roberta M. Magnusson)		
Mrs. Paul Y. Homer (King)	17	14
Jacob R. Kimm and Bonnie Kimm	36	29

Name	Total Water Right	Allowed Pumping Allocation
Mrs. Oraan Kinne (Nicholaas J. Moons, tenant)	11	9
Morris P. Kirk & Son, Inc.	77	62
Jake Knevelbaard and Anna Knevelbaard	50	40
Willie Knevelbaard and Joreen Knevelbaard	1	1
Simon Knorringa	12	10
John Koetsier, Jr.	0	0
Myron D. Kolstad (see listing under name of Frank Bouma)		
Yoshio Kono and Barbara Kono (see listing under name of George Mimaki)		
Louis Koolhaas	13	10
Simon Koolhaas and Sophie Grace Koolhaas	9	7
Pete Koopmans (see listing under name of Jack Gonsalves)		
Nick P. Koot (see listing under name of Mary Myrndahl)		
Kotake, Inc. (Masao Kotake, Seigo Kotake, William Kotake, dba Kotake Bros., tenants)	83	66
Masao Kotake	0	0
Walter G. Kruse and Mrs. Walter G. Kruse, aka Vera M. Kruse	11	9
Laguna-Maywood Mutual Water Company No. 1	1,604	1,283
La Habra Heights Mutual Water Company	3,044	2,435
La Hacienda Water Company	46	37
Lakewood Pipe Co., a partnership composed of Robert G. Foreman, Frank W. Tybus and June E. Tybus (Lakewood Pipe Service Co., tenant)	12	10

Name	Total Water Right	Allowed Pumping Allocation
P. Basil Lambros (see listing under name of Nicholas C. Conteas)		
La Mirada Drive-in Theater (see listing under name of Cowlitz Amusements, Inc.)		
La Mirada Water Company	0	0
Calvin E. Langston and Edith Langston	1	1
S. M. Lanting and Alice Lanting	15	12
Henry Lautenbach and Nellie H. Lautenbach	16	13
Norman Lautrup, as Executor of the Estate of Nels Lautrup, deceased; and Minnie Margaret Lautrup	30	24
Frank C. Leal and Lois L. Leal (D. V. Dairy, tenant)	15	12
Eugene O. LeChasseur and Lillian P. LeChasseur (R. A. LeChasseur, tenant)	2	2
Lee Deane Products, Inc.	0	0
Harley Lee (see listing under name of Delbert G. Black)		
Le Fiell Manufacturing Company	0	0
Armand Lescoulie (see listing under name of Southern California Edison Company)		
Liberty Vegetable Oil Company	14	11
Little Lake Cemetery District	17	14
Little Lake School District	0	0
Loma Floral Company (see listing under name of George Mimaki)		
Melvin L. Long and Stella M. Long	2	2
Nick J. Loogman (see listing under name of William Smoorenburg)		
Frank Lorenz (see listing under name of Ralph Oosten)		

Name	Total Water Right	Allowed Pumping Allocation
Los Angeles County Waterworks District No. 1 (Base Water Right 22)	113	90
Los Angeles County Waterworks District No. 10	842	674
Los Angeles County Waterworks District No. 16	412	330
Los Angeles Paper Box and Board Mills	321	257
Los Angeles Union Stockyards Company	0	0
Los Nietos Tract 6192 Water Co.	49	39
Alden Lourenco (see listing under name of A. C. Pinheiro)		
Lowell Joint School District	0	0
Joe Lucas (see listings under names of Mary A. Ferreira and Jack Gonsalves)		
Luer Packing Co. (see listing under name of Sam Perricone)		
Jake J. Luetto (Orange County Nursery, Inc., tenant)	13	10
Lunday-Thagard Oil Co.	265	212
Joe Luond (Frieda Roethlisberger, tenant as to portion of rights)	7	6
John Luscher and Frieda Luscher	13	10
Paul H. Lussman, Jr. and Ann Lussman, Siegfried Binggeli and Trina L. Binggeli (Paul's Dairy, tenant)	8	6
Lynwood Gardens Mutual Water Company	205	164
Lynwood Park Mutual Water Company	278	222
Jerome D. Mack and Joyce Mack (see listing under name of D. S. Moss)		
Roberta M. Magnusson (King Kelly Marmalade Co., tenant)	15	12
Anthony Mancebo	0	0

Name	Total Water Right	Allowed Pumping Allocation
Robert B. Marchbank and Ruby F. Marchbank (see listing under name of Jenkins Realty Mutual Water Co.)		
Harold Marcroft and Marjorie Marcroft (Noble G. Daniels, tenant)	7	6
Floyd G. Marcusson (see listing under name of Sykes Realty Co.)		
Walter Marlowe and Edna Marlowe	1	1
Marshburn, Inc. (see listing under name of Mel, Inc.)		
The Martin Bros. Container & Timber Products Corp.	7	6
Mary Martin	35	28
Antonio Mathias and Mary Mathias	16	13
Mausoleum Park, Inc. and Sun Holding Corporation	4	4
Maywood Mutual Water Company No. 1	926	741
Maywood Mutual Water company No. 2	1,007	806
Maywood Mutual Water Company No. 3	1,407	1,126
Mel, Inc. (Marshburn, Inc., tenant)	67	54
G. Mellano	12	10
Wilbur Mellema and Mary Mellema (see listing under name of Elmo D. Murphy)		
Wilbur Mellema (see listing under name of Morris Weiss)		
Memorial Parks, Inc.	42	34
Lyman B. Merrick and Gladys L. Merrick	17	24
Metropolitan State Hospital of the State of California Department of Mental Hygiene (see listing under name of State of California)		
F. N. Metzger	0	0

Name	Total Water Right	Allowed Pumping Allocation
Lorraine K. Meyberg (L. Kauffman Company, Inc., tenant)	81	65
Midland Park Water trust	71	57
Midway Gardens Mutual Association	59	47
Harry C. Miersma and Dorothy L. Miersma	12	10
Henry Miersma and Susan M. Miersma	7	6
Willis L. Miller	0	0
George Mimaki, Mitsuko Mimaki, Yoshio Kono and Barbara Kono (Loma Floral Company, tenant)	2	2
Ray Mitchell (see listing under name of Corporation of the Presiding Bishop of the Church of Jesus Christ of Latter Day Saints; and also listing under name of Frank Ruggieri)		
Fumiko Mitsuuchi, aka Mary Mitsuuchi (Z. Van Spanje, tenant as to one acre foot)	14	11
Yoneichi Miyasaki	0	0
Glenn Miyoshi, Yosaku Miyoshi, Masayo Miyoshi, Haruo Miyoshi, and Masaru Miyoshi, dba Miyoshi Bros.	10	8
Jean Mocho and Michel Plaa	11	9
Modern Imperial Company	71	57
Montebello Land and Water Company	1,990	1,592
Monterey Acres Mutual Water Company	128	102
Nicholaas J. Moons (see listing under name of Mrs. Oraan Kinne)		
Alexander Moore and Betty L. Moore	16	13
Neal Moore	0	0
Alyce Mooschekian	0	0
Reuben Mooschekian	15	12

Name	Total Water Right	Allowed Pumping Allocation
William R. Morris (see also listing under name of Associated Southern Investment Company)	1	1
D. S. Moss, Lillian Moss, Jerome D. Mack, and Joyce Mack	5	4
Mountain View Dairies, Inc.	68	54
Kiyoshi Murakawa and Shizuko Murakawa	0	0
Daisaku Murata, Fui Murata, Hatsuye Murata, Kenji Murata, Setsuko Murata, and Takeo Murata	15	12
Kenji Murata (see listing under name of Southern California Edison Company)		
Elmo D. Murphy and Evelene B. Murphy (Morris Weiss, Bessie Weiss, Wilbur Mellema, and Mary Mellema, tenants)	23	18
Murphy Ranch Mutual water company	576	461
Etta Murr	3	3
R. B. Murray and Gladys J. Murray	0	0
Tony G. Mussachia and Anna M. Mussachia	10	8
Mary Myrndahl (Nick P. Koot, tenant)	11	9
Sam Nakamura and Tokiko Nakamura	2	2
Leo Nauta (see listing under name of John Osinga)		
Pete Nauta (see listing under name of Jacob Vandenberg)		
Fred C. Nelles School for Boys of the State of California Department of the Youth Authority (see listing under name of State of California)		
Otelia Nelson and Robert Nelson (Shelter Superior Dairy, tenant)	14	11
Simon S. Niekerk and Rose Niekerk (Niekerk Hay Company, tenant)	3	3

Name	Total Water Right	Allowed Pumping Allocation
Norris-Thermador Corporation	172	138
North Gate Gardens Water Co.	60	48
Norwalk-La Mirada City School District	360	288
Norwalk Mobile Lodge (see listing under name of Elizabeth Flesch)		
Mabel E. Nottingham (Leslie Nottingham, tenant)	25	20
William Offinga & Son, including Sidney Offinga (see listing under name of Henry Boer)		
Olive Lawn Memorial Park, Inc.	14	11
John Oord	0	0
Marinus Oosten and Anthonia Oosten	16	13
Ralph Oosten and Caroline Oosten (Frank Lorenz, tenant as to 13 acre feet of water right and 10 acre feet of allowed pumping allocation)	51	41
Orange County Nursery, Inc. (see also: listing under name of Ruth E. Dever; listing under name of Jake J. Luetto; and listing under name of Mary Ravera)	16	13
Orchard Dale County Water District (Base Water Right - 1,382)	1,384	1,107
Orchard Park Water Club, Inc.	50	40
Oriental Foods, Inc.	34	27
Orla Company (John D. Westra, tenant)	7	6
Viva Ormonde (see listing under name of Hank Van Dam)		
Pablo Oropeza and Aurelia G. Oropeza (Pablo Oropeza, Jr., tenant) (see also listing under name of Tarr and McComb Oil Company, Ltd.)		
John Osinga (Leo Nauta, tenant)	6	5

Name	Total Water Right	Allowed Pumping Allocation
Manuel B. Ourique (see listing under name of John Borges)		
Owl Constructors	20	16
Pacific Electric Railway Company (Gerrit Van Leeuwen of 15405 Shoemaker Road, Norwalk, tenant as to 11 acre feet of right and 9 acre feet of allowed pumping allocation)	15	12
Packers Mutual Water Company	43	34
Edward G. Paddison and Grace M. Paddison	17	14
Paramount Farms (see listing under name of Harry N. Goedhart)		
Paramount County Water District	2,967	2,374
Paramount Unified School District	58	46
Park Water Company	24,592	19,674
W. J. Parsonson	0	0
Rudolph Pasma and Frances C. Pasma	10	8
Paul's Dairy (see listing under name of Paul H. Lussman, Jr.)		
Mrs. La Verne Payton	1	1
Peerless Land & Water Co., Inc.	1,232	986
J. C. Pereira, Jr. and Ezaura Pereira	34	27
Sam Perricone and Louis Romoff (Luer Packing Co., tenant)	107	86
Peterson Manufacturing Co., Inc.	73	58
Phelps Dodge Copper Products Corporation	390	312
Pico County Water District	3,741	2.993
Piedmont Heights Water Club	7	6
Lucille C. Pimental (Richard Pimental and Pimental Dairy, tenants)	16	13

Name	Total Water Right	Allowed Pumping Allocation
Joe Pine (see listing under name of A. C. Pinheiro)		
A. C. Pinheiro and Mary M. Pinheiro (Alden Lourenco, tenant as to 9 acre feet of water right and 7 acre feet of allowed pumping right; and Joe Pine, tenant as to 13 acre feet of water right and 10 acre feet of allowed pumping right)	128	102
Fred Pinto and Mary Pinto	5	4
Frank Pires (see listing under name of Frank Simas)		
Tony C. Pires and Laura C. Pires	31	25
Michel Plaa (see listing under name of Jean Mocho)		
Donald R. Plunkett	53	42
Pomering Tract Water Association	32	26
Clarence Pool	24	19
Garret Porte and Cecelia Porte	35	28
Veronica Postma	16	13
C. H. Powell	1	1
Powerine Oil Company	784	627
John Preem	0	0
Ralph Pylman and Ida Pylman	13	10
Quality Meat Packing Company	38	30
Ralphs Grocery Company	0	0
Arthur D. Ramsey and James A. Ramsey	5	4
Rancho Santa Gertrudes Mutual Water System	48	38
Mary Ravera (Orange County Nursery, Inc., tenant	39	31

Name	Total Water Right	Allowed Pumping Allocation
Zelma Ravera	2	2
Rawlins Investment Corporation (Rockview Milk Farms, Inc., tenant)	66	53
Hal Rees	0	0
Reeves Tract Water Company	36	29
Clarence Reinalda	0	0
Reliance Dairy Farms	122	98
Research Building Corporation (Dr. Russell B. Clark, tenant)	11	9
Richfield Oil Corporation	71	57
Richland Farm Water Company	216	173
George Rietkerk and Cornelia Rietkerk	7	6
Rio Hondo Country Club (see listing under name of James L. Stamps)		
Erasmo Rios (see listing under name of Esther Salcido)		
Jesus Rios (see listing under name of Esther Salcido)		
Frank J. Rocha, Jr. and Elsie M. Rocha	13	10
Rockview Milk Farms, Inc. (see listing under name of Rawlins Investment Corporation)		
John Rodrigues, Emily S. Rodrigues, and John Rodrigues, Jr. (see also below)	5	4
John Rodrigues and John Rodrigues Jr.	1	1
Frieda Roethlisberger (see listing under name of Joe Luond)		
Patricia L. Davis Rogers, aka Patricia L. Davis	2	2
The Roman Catholic Archbishop of Los Angeles, a corporation sole	426	341

Name	Total Water Right	Allowed Pumping Allocation
Gladys Marie Romberg (see listing under name of Bernard William Bootsma)		
Alois M. Rombout	0	0
Louis Romoff (see listing under name of Sam Perricone)		
Elvira C. Rosales	3	3
Frank J. Ross	2	2
Ernest D. Roth and Eva Roth (see listing under name of Elizabeth Flesch)		
Ed Roukema	0	0
Herbert N. Royden	31	25
Ruchti Brothers	31	25
Frank Ruggieri and Vada Ruggieri (see additional listing below)	1	1
Frank Ruggieri and Vada Ruggieri; David Seldeen and Fay Seldeen (Ray Mitchell, tenant)	23	18
Thomas S. Ryan and Dorothy J. Ryan	19	15
Sam Rypkema and Tena Rypkema	8	6
St. John Bosco School	53	42
James H. Saito and Yoshino Saito	2	2
Esther Salcido and Jesus Rios (Erasmo Rios, tenant)	3	3
San Gabriel Valley Water Company	6,828	5,462
Joe Santana and Palmira Santana	10	8
Sasaki Bros. Ranch, Inc.	32	26
Sativa L. A. County Water District	592	474
Ben Schilder, Jr. and Anna Schilder	28	22
Carl Schmid and Olga Schmid	18	14

Name	Total Water Right	Allowed Pumping Allocation
Mrs. A. Schuur	0	0
John Schuurman and Isabel Schuurman (James Sieperda, tenant)	15	12
David Seldeen and Fay Seldeen (see listing under name of Frank Ruggieri)		
Maurice I. Sessler	8	6
Chris Shaffer and Celia I. Shaffer	8	6
Shayman & Wharram, a partnership, consisting of John W. Shayman and Francis O. Wharram	2	2
Shell Oil Company (see listing under name of Margaret F. Slusher)		
Shelter Superior Dairy (see listing under name of Otelia Nelson)		
Tadao Shiba and Harume Shiba, Susumu Shiba, and Mitsuko Shiba	7	6
Yahiko Shiozaki and Kiyoko Shiozaki; Ken Shiozaki and Grace Shiozaki	6	5
Shore-Plotkin Enterprises, Inc. (Shore-Calnevar, Inc., tenant)	0	0
J. E. Siemon	15	12
James Sieperda (see listing under name of John Schuurman)		
Sierra Restaurant Corporation	0	0
Frank Simas and Mabel Simas (Frank Pires, tenant)	11	9
Bennett E. Simmons and Alice Lorraine Simmons, George K. Simmons and Doris June Simmons (Bell Trailer City, tenant)	41	33
Margaret F. Slusher (Shell Oil Company, tenant)	7	6
Lester W. Smith and Donald E. Smith (Lester W. Smith Dairy, tenant)	20	16

Name	Total Water Right	Allowed Pumping Allocation
Wirt Smith	14	11
William Smoorenburg and Nick J. Loogman (Smoorenburg & Loogman, a partnership of William Smoorenburg and Nick J. Loogman, operating well facility)	21	17
Leo Snozzi and Sylvia Snozzi	52	42
Socony Mobil Oil Company, Inc.	172	138
Somerset Mutual Water Company	2,744	2,195
South Montebello Irrigation District	1,238	990
Southern California Edison Company (Vernon Bacon; Chikami Bros. Farming, consisting of Jack Chikami and Shigeru Chikami; Louis F. De Martini; Armand Lescoulie; C. D. Webster; Kenji Murata; Glenn F. Spiller and Jean H. Spiller; George Yamamoto and Alice Yamamoto, conducting business as Fumi Garden Farms, Inc.; and Salvatore Gutierrez, tenants and licenses)	816	653
Southern California Water Company	18,937	15,150
Southern Service Company, Ltd.	81	65
Henrietta Southfield	4	4
John Southfield	0	0
Southwest Water Company	2,895	2,316
Manuel M. Souza, Sr.; Manuel M. Souza, Jr.; Frank M. Souza and Louie J. Souza (see listing under name of Jack Gonsalves)		
Nelson Souza and Mary Souza	12	10
Glenn F. Spiller and Jean H. Spiller (see also listing under name of Southern California Edison company)	24	19
Farah Sprague	3	3

Name	Total Water Right	Allowed Pumping Allocation
Herman F. Staat and Charlotte H. Staat	2	2
James L. Stamps, as to an undivided 80% interest; Addie L. Enfield, as to an undivided 20% interest (Rio Hondo Country Club, tenant)	443	354
Standard Oil Company of California	118	94
J. F. Standley and Myrtle M. Standley	1	1
Star Dust Lands, Inc.	85	68
State of California (included herein are water rights of Fred C. Nelles School for Boys of the State of California Department of the Youth Authority; Metropolitan State Hospital of the State of California Department of Mental Hygiene; and District VII, Division of Highways of the State of California Department of Public Works)	757	606
Stauffer Chemical Company	181	145
John Steele and Clara D. Steele	4	4
Steve Stefani, Jr.	0	0
Steve Stefani, Sr., and Dora Stefani (Henry Baar and Fred Fekkes, tenants)	38	30
Andrew Stellingwerf	0	0
Henry Stellingwerf and Jeanette Stellingwerf	14	11
Henry Sterk and Betty S. Sterk	114	91
V. C. Stiefel	3	3
Sophia J. Stockmal and John F. Stockmal	3	3
William Thomas Stover and Gertrude D. Stover	3	3
Louis Struikman and Alice Struikman (Louis Struikman and Pete Struikman dba Louis Struikman and Son, tenants as to 43 acre feet of water right and 34 acre feet of allowed pumping allocation; and Sidney		

Name	Total Water Right	Allowed Pumping Allocation
Van Dyke, tenant as to 10 acre feet of water right and 8 acre feet of allowed pumping allocation) (see also below)	53	42
Louis Struikman and Peter Struikman	3	3
Cornelius Struikmans and Ida Struikmans	9	7
Henry Struikmans and Nellie Struikmans	13	10
Henry Struikmans, Jr.	0	0
Suburban Mutual Water Co.	0	0
Suburban Water Systems	3,666	2,933
Kazuo Sumida	2	2
Sun Coast Development Company	0	0
Sun Holding Corporation (see listing under name of Mausoleum Park, Inc.)		
Sunnyside Mausoleum Company	60	48
Sunset Cemetery Association	26	21
E. A. Sutton and Ramona Sutton	39	31
Swift & Company	2,047	1,638
Roy Sybrandy and Anne Sybrandy	29	23
Sykes Realty Co., Floyd G. Marcusson and Albert C. Sykes	2	2
Andy Sytsma and Dorothy Sytsma (Albert Sytsma and Robert Sytsma, doing business as Sytsma Bros., tenants)	20	16
Tarr and McComb Oil Company, Ltd. (Pablo Oropeza, tenant)	86	69
Roy Tashima and Shigeo Tashima	1	1
Fay G. Tawzer and Lawrence R. Tawzer (see listing under name of Fern Ethyl Gordon)		
Dorothy Taylor	0	0
Quentin D. Taylor	0	0

Name	Total Water Right	Allowed Pumping Allocation
Carl Teixeira and Evelyn Teixeira	11	9
George S. Teixeira and Laura L. Teixeira	17	14
Harm Te Velde and Zwaantina Te Velde	253	202
Theo Hamm Brewing Co.	150	120
Thirty-Three Forty-Five East Forty-Fifth Street, Inc.	17	14
O. T. Thompson and Drusilla Thompson	20	16
Tract Number One Hundred and Eighty Water Company	1,526	1,221
Tract 349 Mutual Water Company	529	423
Fred Troost and Annie Troost	53	42
Frank W. Tybus and June E. Tybus (see listing under name of Lakewood Pipe Co.)		
Uehling Water Company, Inc.	846	677
Union Development Co., Inc.	12	10
Union Oil Company of California (see listing under name of Florence Hellman Ehrman)		
Union Pacific Railroad Company	656	525
Union Packing Company	100	80
United California Bank (see listing under name of Huntley L. Gordon)		
United Dairymen's Association	1	1
United States Gypsum Company	1,581	1,265
United States Rubber Company	820	656
United States Steel Corporation	176	141
Masaru Uyeda, Hajime Hirashima, and Tadashi Uyeda	12	10
G. A. Van Beek (see listing under name of Art Hop, Sr.)		

Name	Total Water Right	Allowed Pumping Allocation
Bas Van Dam (see listing under name of Gertrude Van Dam)		
Carrie Agnes Van Dam (see listing under name of Bernard William Bootsma)		
Cornelius A. Van Dam and Florence Van Dam	24	19
Dick Van Dam, Jr.	0	0
Gerrit Van Dam and Grace Van Dam (William De Kriek, tenant)	13	10
Gertrude Van Dam (Bas Van Dam, tenant as to 29 acre feet of water right and 23 acre feet of allowed pumping right; and Henry Van Dam, tenant as to 19 acre feet of water right and 15 acre feet of allowed pumping right)	48	38
Hank Van Dam and Jessie Van Dam (Viva Ormonde, tenant)	22	18
Henry Van Dam (see listing under name of Gertrude Van Dam)		
Jacob Vandenberg and Anna Vandenberg (Pete Nauta, tenant)	8	6
August Vandenburg, Ben W. Vandenburg, and Andrew W. Vandenburg (Jan Bokma, tenant)	6	5
John Van Den Raadt	4	4
M. Vander Dussen and Aletta C. Vander Dussen	12	10
Sybrand Vander Dussen and Johanna Vander Dussen	23	18
Helen Goedhart Van Eik (see listing under name of Harry N. Goedhart)		
Cornelius Vander Eyk, aka Case Vander Eyk, and Nelly Vander Eyk, aka Nellie Vander Eyk	7	6
George Van Der Ham and Alice Van Der Ham	10	8

Name	Total Water Right	Allowed Pumping Allocation
Huibert Vander Ham and Henrietta Vander Ham	33	26
Joe Vanderham and Cornelia Vanderham	13	10
John Vanderham and Nell M. Vanderham	20	16
Charlie Vander Kooi and Lena Mae Vander Kooi (see also listing under name of Michel Bordato)	13	10
Pete Vander Kooi (see listing under name of Ed Haakma)		
Bert Vander Laan and Stella Vander Laan	10	8
Matt Vander Sys and Johanna Vander Sys	13	10
Bill Vander Vegt and Henny Vander Vegt	18	14
George Vander Vegt and Houjke Vander Vegt	12	10
Harry J. Vander Wall and Marian E. Vander Wall	12	10
Bert Vande Vegte and Lillian Vande Vegte	1	1
Anthony Van Diest	0	0
Jennie Van Diest, as to undivided 1/3 interest; Ernest Van Diest and Rena Van Diest, as to undivided 1/3 interest; and Cornelius Van Diest and Anna Van Diest, as to undivided 1/3 interest. (Van Diest Dairy, tenant)	20	16
Katrena Van Diest and/or Margaret Van Diest	92	74
Henry W. Van Dyk (see listing under name of Henrietta Veenendaal)		
Wiechert Van Dyk and Jennie Van Dyk	13	10
Corty Van Dyke (see listing under name of Charles E. Adams)		
Sidney Van Dyke (see listing under name of Louis Struickman)		

Name	Total Water Right	Allowed Pumping Allocation
William Van Foeken	0	0
Jake Van Haaster and Gerarda Van Haaster	0	0
Arie C. Van Leeuwen (see listing under name of Sam Bouman)		
Gerrit Van Leeuwen of 15405 Shoemaker Road, Norwalk (see listing under name of Pacific Electric Railway Company)		
Henry Van Leeuwen and Caroline P. Van Leeuwen; Gerrit Van Leeuwen of 5948 Lorelei Street, Bellflower, and Ellen Van Leeuwen	1	1
Jake Van Leeuwen, Jr. and Cornelia J. Van Leeuwen (James C. Boogerd and Jake Van Leeuwen, Jr. dba Van Leeuwen & Boogerd, tenants)	9	7
Anthony R. Van Loon (see listing under name of Henry Van Ruiten)		
John Van Nierop and Lily E. Van Nierop	0	0
Henry Van Ruiten and Mary A. Van Ruiten, as to undivided 1/2 interest; and Jake Van Ruiten and Jacoba Van Ruiten, as to undivided 1/2 interest (W. P. Jordan, Anthony R. Van Loon, and Jules Wesselink, tenants)	88	70
Pete Van Ruiten and Mary Van Ruiten (for purposes of clarification, this Mary Van Ruiten is also known as Mrs. Pete Van Ruiten and is not the same individual as sued herein as Mary A. Van Ruiten, who is also known as Mrs. Henry G. Van Ruiten)	38	30
Z. Van Spanje (see listing under name of Fumiko Mitsuuchi)		
Evert Veenendaal and Gertrude Veenendaal (see listing under name of Earl Haringa)		
Henrietta Veenendaal (Henry W. Van Dyk, tenant)	10	8

Name	Total Water Right	Allowed Pumping Allocation
Henry Veenendaal and Henrietta Veenendaal	8	6
Joe H. Veenendaal and Margie Veenendaal	34	27
John Veenendaal	0	0
Vehicle Maintenance & Painting Corporation (see listing under name of Nicholas C. Conteas)		
Salvador Velasco	16	13
Mike Veldhuis	0	0
Albert Veldhuizen and Helen Veldhuizen	23	18
Jack Verbree	0	0
Mrs. Klaasje Verburg (Leon Verburg to extent of interest under contract to purchase)	12	10
John C. Verhoeven and Sadie Verhoeven	25	20
Joseph C. Vierra and Caroline Vierra (Joseph C. Vierra and William J. Vierra, doing business as Vierra & Vierra, tenants)	13	10
Sieger Vierstra and Nellie G. Vierstra (Jacob J. Bosma, tenant)	12	10
Virginia Country Club of Long Beach	340	272
Roy Visbeek	0	0
Louis Visser	9	7
Vista Hill Psychiatric Foundation	39	31
Louie Von Ah	0	0
Walnut Irrigation District	154	123
Walnut Park Mutual Water Co.	1,245	996
C. D. Webster (see also listing under name of Southern California Edison Company)	1	1

Name	Total Water Right	Allowed Pumping Allocation
Morris Weiss and Bessie Weiss (Wilbur Mellema, tenant) (also see listings under names of Elmo D. Murphy and Emma Engler)	20	16
Wells Fargo Bank as Executor of Estate of Edward H. Heller, Deceased, and as Executor of Estate of Lloyd W. Dinkelspiel, Deceased, and as Trustee under Trust created by the Will of Florence H. Dinkelspiel, Deceased (see listing under name of Florence Hellman Ehrman)		
Jules Wesselink (see listing under name of Henry Van Ruiten)		
West Gateway Mutual Water Co.	105	84
Henry Westra and Hilda Westra	40	32
John D. Westra (see listing under name of Orla Company)		
Francis O. Wharram (see listing under name of Shayman & Wharram)		
Whittier Union High School District	125	100
Arend Z. Wier	14	11
H. Wiersema, aka Harm Wiersema and Pearl Wiersema	16	13
William Wiersma and Elbra Wiersma	7	6
Richard Wigboly (see listing under name of Central Manufacturing District, Inc.)		
Mary Wilcox (see listing under name of Jenkins Realty Mutual Water Co.)		
Ralph P. Williams and Mary Williams	14	11
Wilshire Oil Company of California	1,795	1,436
Melvin L. Wilson and Marie Wilson	1	1
D. P. Winslow and Dorothy C. Winslow (Berton Elson, tenant)	15	12

Name	Total Water Right	Allowed Pumping Allocation
Helene K. Winters	1	1
Fred E. Wiseman and Grayce Anna Wiseman	2	2
Helen Wolfsberger and Christine Joseph	2	2
Volney Womack	0	0
Cho Shee Woo (Hong Woo and Ngorn Seung Woo, as agents of property for Cho Shee Woo)	20	16
Gerrit Wybenga and Rena Wybenga	10	8
George Yamamoto and Alice Yamamoto, also known as Fumi Yamamoto (Fumi Garden Farms, Inc., tenant) (see also listing under name of Southern California Edison Company)	17	14
Paul N. Yokota and Miyo Yokota	4	4
Minoru Yoshijima (see listing under name of Kazuo Hatanaka)		
Frank Yoshioka	0	0
Maxine Young	3	3
Mrs. A. Zandvliet also known as Anna A. Zandvliet	8	6
Arnold Zeilstra and Nellie Zeilstra	6	5
George Zivelonghi and Antonio Zivelonghi	121	97
Dick Zuidervaart and Janna Zuidervaart (Artesia Milling Company, tenant)	1	1
Andy Zylstra	0	0
Zylstra Bros. a partnership consisting of Lammert Zylstra and William Zylstra (see listing under name of John H. Coito)		
John Zylstra and Leonard J. Zylstra, doing business as The Zylstra Dairy	22	18
Leonard Zylstra (not the same person as Leonard J. Zylstra	0	0

4. Transition in Administrative Year - Application. "Year" and "Administrative Year" as used throughout this judgment shall mean the water year; provided that with the first fiscal year (July 1 - June 30) commencing at least four months after the "Amended Judgment" became final, and thereafter, said words shall mean the fiscal year. Since this will provide a transitional Administrative year of nine months, October 1 - June 30, ("short year" hereafter), notwithstanding the finding and determinations in the annual Watermaster report for the then last preceding water year, the Allowed Pumping Allocations of the parties and the quantity which Defendant City of Los Angeles is annually permitted to extract from Central Basin for said short year shall be based on three-quarters of the otherwise allowable quantity. During said short year, because of hardships that might otherwise result, any overextractions by a party shall be deemed pursuant to paragraph 2, Subpart B of Part III of this judgment (p. 61), and it shall be deemed that the Watermaster has made the determination of unreasonable hardship to which reference is therein made.

II. APPOINTMENT OF WATERMASTER; WATERMASTER ADMINISTRATION PROVISIONS. Department of Water Resources of the State of California is hereby appointed Watermaster, for an indefinite term, but subject to removal by the Court, to administer this judgment and shall have the following powers, duties and responsibilities:

1. Duties, Powers and Responsibilities of Watermaster. In order to assist the Court in the administration and enforcement of the provisions of this judgment and to keep the Court

fully advised in the premises, the Watermaster shall have the following duties, powers and responsibilities in addition to those before or hereafter provided in this judgment:

(a) Watermaster May Require Reports, Information and Records. To require of parties the furnishing of such reports, information and records as may be reasonably necessary to determine compliance or lack of compliance by any party with the provisions of this judgment.

(b) Requirement of Measuring Devices. To require all parties or any reasonable classification of parties owning or operating any facilities for the extraction of ground water from Central Basin to install and maintain at all times in good working order at such party's own expense, appropriate measuring devices at such times and as often as may be reasonable under the circumstances and to calibrate or test such devices.

(c) Inspections by Watermaster. To make inspections of ground water production facilities and measuring devices at such times and as often as may be reasonable under the circumstances and to calibrate or test such devices.

(d) Annual Report. The Watermaster shall prepare, file with the Court and mail to each of the parties on or before the 15th day of the fourth month following the end of the preceding Administrative year, an annual report for such year, the scope of which shall include but not be limited to the following:

1. Ground Water Extractions
2. Exchange Pool Operation
3. Use of Imported Water

4. Violations of Judgment and Corrective Action Taken

5. Change of Ownership of Total Water Rights

6. Watermaster Administration Costs

7. Recommendations, if any.

(e) Annual Budget and Appeal Procedure in Relation Thereto. The Watermaster shall annually prepare a tentative budget for each Administrative year stating the anticipated expense for administering the provisions of this judgment. The Watermaster shall mail a copy of said tentative budget to each of the parties hereto at least 60 days before the beginning of each Administrative year. For the first Administrative year of operation under this judgment, if the Watermaster is unable to meet the above time requirement, the Watermaster shall mail said copies as soon as possible. If any party hereto has any objection to said tentative budget, it shall present the same in writing to the Watermaster within 15 days after the date of mailing of said tentative budget by the Watermaster. If no objections are received within said period, the tentative budget shall become the final budget. If objections are received, the Watermaster shall, within 10 days thereafter, consider such objections, prepare a final budget and mail a copy thereof to each party hereto, together with a statement of the amount assessed to each party. Any party may apply to the Court within 15 days after the mailing of such final budget for a revision thereof based on specific objections thereto. The parties hereto shall make the payments otherwise required of them to the Watermaster even though such a request for revision has been filed with the Court. Upon any revision by the Court the

Watermaster shall either remit to the parties their prorata portions of any reduction in the budget, or credit their accounts with respect to their budget assessments for the next ensuing Administrative year, as the Court shall direct.

The amount to be assessed to each party shall be determined as follows: If that portion of the final budget to be assessed to the parties is equal to or less than $20.00 per party then the cost shall be equally apportioned among the parties. If that portion of the final budget to be assessed to parties is greater than $20.00 per party then each party shall be assessed a minimum of $20.00. The amount of revenue expected to be received through the foregoing minimum assessments shall be deducted from that portion of the final budget to be assessed to the parties and the balance shall be assessed to the parties having Allowed Pumping Allocations, such balance being divided among them proportionately in accordance with their respective Allowed Pumping Allocations.

Payment of the assessment provided for herein, subject to adjustment by the Court as provided, shall be made by each such party prior to beginning of the Administrative year to which the assessment relates, or within 40 days after the mailing of the tentative budget, whichever is later. If such payment by any party is not made on or before said date, the Watermaster shall add a penalty of 5% thereof to such party's statement. Payment required of any party hereunder may be enforced by execution issued out of the Court, or as may be provided by order hereinafter made by the Court, or by other proceedings by the Watermaster or by any party hereto on the Watermaster's behalf.

Any money unexpended at the end of any Administrative year shall be applied to the budget of the next succeeding Administrative year.

Notwithstanding the above, no part of the budget of the Watermaster shall be assessed to the Plaintiff District or to any party who has not extracted water from Central Basin for a period of two successive Administrative years prior to the Administrative year in which the tentative budget should be mailed by the Watermaster under the provisions of this subparagraph (e).

(f) Rules. The Watermaster may adopt and amend from time to time such rules as may be reasonably necessary to carry out its duties, powers and responsibilities under the provisions of this judgment. The rules shall be effective on such date after the mailing thereof to the parties as is specified by the Watermaster, but not sooner than 30 days after such mailing.

2. Use of Facilities and Data Collected by Other Governmental Agencies. The Watermaster is directed not to duplicate the collection of data relative to conditions of the Central Basin which is then being collected by one or more governmental agencies, but where necessary the Watermaster may collect supplemental data. Where it appears more economical to do so, the Watermaster is directed to use such facilities of other governmental agencies as are available to it under either no cost or cost agreements with respect to the receipt of reports, billings to parties, mailings to parties, and similar matters.

3. Appeal from Watermaster Decisions Other Than With Respect to Budget. Any party interested therein who has objection to any rule, determination, order or finding made by the Watermaster, may make objection thereto in writing delivered to the Watermaster within 30 days after the date the Watermaster mails written notice of the making of such rule, determination, order or finding, and within 30 days after such delivery the Watermaster shall consider said objection and shall amend or affirm his rule, determination, order or finding and shall give notice thereof to all parties. Any such party may file with the Court within 30 days from the date of said notice any objection to such rule, determination, order or finding of the Watermaster and bring the same on for hearing before the Court at such time as the Court may direct, after first having served said objection upon all other parties. The Court may affirm, modify, amend or overrule any such rule, determination, order or finding of the Watermaster. The provisions of this paragraph shall not apply to budgetary matters, as to which the appellate procedure has heretofore been set forth. Any objection under this paragraph shall not stay the rule, determination, order or finding of the Watermaster. However, the Court, by ex parte order, may provide for a stay thereof on application of any interested party on or after the date that any such party delivers to the Watermaster any written objection.

4. Effect of Non-Compliance by Watermaster With Time Provisions. Failure of the Watermaster to perform any duty, power or responsibility set forth in this judgment within the time limitation herein set forth shall not deprive the

Watermaster of authority to subsequently discharge such duty, power or responsibility, except to the extent that any such failure by the Watermaster may have rendered some otherwise required act by a party impossible.

III. PROVISIONS FOR PHYSICAL SOLUTION TO MEET THE WATER REQUIREMENTS IN CENTRAL BASIN. In order to provide flexibility to the injunction set forth in Part I of the judgment, and to assist in a physical solution to meet water requirements in Central Basin, the injunction so set forth is subject to the following provisions.

A. Carryover of Portion of Allowed Pumping Allocation.

(1) Each party adjudged to have a Total Water Right or water rights and who, during a particular Administrative year, does not extract from Central Basin a total quantity equal to such party's Allowed Pumping Allocation for the particular Administrative year, less any allocated subscriptions by such party to the Exchange Pool, or plus any allocated requests by such party for purchase of Exchange Pool water, is permitted to carry over (the "One Year Carryover") from such Administrative year the right to extract from Central Basin in the next succeeding Administrative year so much of said total quantity as it did not extract in the particular Administrative year, not to exceed 20% of such party's Allowed Pumping Allocation, or 20 acre feet, whichever of said 20% or 20 acre feet is the larger.

(2) Following the declaration of a Declared Water Emergency and until the Declared Water Emergency ends either

by expiration or by resolution of the Board of Directors of the Central and West Basin Water Replenishment District, each party adjudged to have a Total Water Right or water rights and who, during a particular Administrative year, does not extract from Central Basin a total quantity equal to such party's Allowed Pumping Allocation for the particular Administrative year, less any allocated subscriptions by such party to the Exchange Pool, or plus any allocated requests by such party for purchase of Exchange Pool water, is permitted to carry over (the "Drought Carryover") from such Administrative year the right to extract from Central Basin so much of said total quantity as it did not extract during the period of the Declared Water Emergency, to the extent such quantity exceeds the One Year Carryover, not to exceed an additional 35% of such party's Allowed Pumping Allocation, or additional 35 acre feet, whichever of said 35% or 35 acre feet is the larger. Carryover amounts shall first be allocated to the One Year Carryover and any remaining carryover amount for that year shall be allocated to the Drought Carryover.

(3) No further amounts shall be added to the Drought Carryover following the end of the Declared Water Emergency, provided however that in the event another Declared Water Emergency is declared, additional Drought Carryover may be added, to the extent such additional Drought Carryover would not cause the total Drought Carryover to exceed the limits set forth above.

(4) The Drought Carryover shall be supplemental to and shall not affect any previous drought carryover acquired by a party pursuant to previous order of the court.

B. When Over-extractions May be Permitted.

1. Underestimation of Requirements for Water. Any party hereto having an Allowed Pumping Allocation and not in violation of any provision of this judgment may extract in an Administrative year an additional quantity of water not to exceed: (a) 20% of such party's Allowed Pumping Allocation or 20 acre feet, whichever is greater, and (b) any amount in addition thereto which may be approved in advance by the Watermaster.

2. Reductions in Allowed Pumping Allocations in Succeeding Years to Compensate for Permissible Overextractions. Any such party's Allowed Pumping Allocation for the following Administrative year shall be reduced by the amount over-extracted pursuant to paragraph 1 above, provided that if the Watermaster determines that such reduction in the party's Allowed Pumping Allocation in one Administrative year will impose upon such a party an unreasonable hardship, the said reduction in said party's Allowed Pumping Allocation shall be prorated over a period of five (5) Administrative years succeeding that in which the excessive extractions by the party occurred. Application for such relief to the Watermaster must be made not later than the 40th day after the end of the Administrative year in which such excessive pumping occurred. Watermaster shall grant such relief if such over-extraction, or any portion thereof, occurred during a period of Declared Water Emergency.

3. Reductions in Allowed Pumping Allocations for the Next Succeeding Administrative Year to Compensate for Overpumping. Whenever a party over-extracts in excess of 20% of such party's Allowed Pumping Allocation, or 20 acre feet, whichever is greater, and such excess has not been approved in advance by the Watermaster, then such party's Allowed Pumping Allocation for the following Administrative year shall be reduced by an amount equivalent to its total over-extractions in the particular Administrative year in which it occurred.

4. Reports of Certain Over-extractions to the Court. Whenever a party over-extracts in excess of 20% of such party's Allowed Pumping Allocation, or 20 acre feet, whichever is greater, without having obtained prior approval of the Watermaster, such shall constitute a violation of the judgment and the Watermaster shall make a written report to the Court for such action as the Court may deem necessary. Such party shall be subject to such injunctive and other processes and action as the Court might otherwise take with regard to any other violation of such judgment.

5. Effect of Over-extractions on Rights. Any party who over-extracts from Central Basin in any Administrative year shall not acquire any additional rights by reason of such over-extractions; nor, shall any required reductions in extractions during any subsequent years reduce the Total Water Right or water rights of any party to the extent said over-extractions are in compliance with paragraph 1 above.

6. Pumping Under Agreement With Plaintiff During Periods of Emergency. Plaintiff overlies Central Basin and

engages in activities of replenishing the ground waters thereof. Plaintiff by resolution has appropriated for use during emergencies the quantity of 17,000 acre feet of imported and reclaimed water replenished by it into Central Basin, and pursuant to such resolution Plaintiff reserves the right to use or cause the use of such quantity during such emergency periods.

(a) Notwithstanding any other provision of this judgment, parties who are water purveyors (including successors in interest) are authorized to enter into agreements with Plaintiff under which such water purveyors may exceed their respective Allowed Pumping Allocations for the particular administrative year when the following conditions are met:

(1) Plaintiff is in receipt of a resolution of the Board of Directors of the Metropolitan Water District of Southern California ("MWD") that there is an actual or immediately threatened temporary shortage of MWD's imported water supply compared to MWD's needs, or a temporary inability to deliver MWD's imported water supply throughout its area, which will be alleviated by overpumping from Central Basin.

(2) The Board of Directors of both Plaintiff and Central Basin Municipal Water District by resolutions concur in the resolution of MWD's Board of Directors, and the Board of Directors of Plaintiff finds in its resolution that the average minimum elevation of water surface among those wells in the Montebello Forebay of the Central Basin designated as Los Angeles County Flood Control District Wells Nos. 1601T, 1564P, 1615P,

and 1626L, is at least 43.7 feet above sea level. This computation shall be based upon the most recent "static readings" taken, which shall have been taken not more than four weeks prior. Should any of the wells designated above become destroyed or otherwise be in a condition so that readings cannot be made, or the owner prevent their use for such readings the Board of Directors of the Plaintiff may, upon appropriate engineering recommendation substitute such other well or wells as it may deem appropriate.

(3) In said resolution, Plaintiff's Board of Directors sets a public hearing, and notice of the time, place and date thereof (which may be continued from time to time without further notice) is given by First Class Mail to the current designees of the parties, filed and served in accordance with Part V, paragraph 3 of this Judgment. Said notice shall be mailed at least five (5) days before the scheduled hearing date.

(4) At said public hearing, parties (including successors in interest) are given full opportunity to be heard, and at the conclusion thereof the Board of Directors of Plaintiff by resolution decides to proceed with agreements under this Part III-B.

(5) For purposes of this Part III-B, "water purveyors" mean those parties (and successors in interest) which sell water to the public whether regulated public utilities, mutual water companies or public entities, which have a connection or connections for the taking

of imported water of MWD, or access to imported water of MWD through a connection, and which normally supply part of their customer's needs with such imported water.

(b) All such agreements shall be subject to the following requirements, and such others as Plaintiff's Board of Directors shall require:

(1) They shall be of uniform content except as to quantity involved, and any special provisions considered necessary or desirable with respect to local hydrological conditions or good hydrologic practice.

(2) They shall be offered to all water purveyors, excepting those which Plaintiff's Board of Directors determine should not over pump because such over pumping would occur in undesirable proximity to a sea water barrier project designed to forestall sea water intrusion, or within or in undesirable proximity to an area within Central Basin wherein groundwater levels are at an elevation where over pumping is under all the circumstances then undesirable.

(3) The maximum terms for the agreements shall be four months, which agreements shall commence on the same date and end on the same date (and which may be executed at any time within the four month period), unless an extension thereof is authorized by the Court, under Part IV of this judgment.

(4) They shall contain provisions that the water purveyor executing the agreement pay to the Plaintiff a

price in addition to the applicable replenishment assessment determined on the following formula. The normal price per acre-foot of Central Basin Municipal Water District's (CBMWD) treated domestic and municipal water, as "normal" price of such category of water is defined in Part C, paragraph 10 (price to be paid for Exchange Pool Water) as of the beginning of the contract term less the deductions set forth in said paragraph 10 for the administrative year in which the contract term commences. The agreement shall provide for adjustments in the first of said components for any proportional period of the contract term during which the CBMWD said normal price is changed, and if the agreement straddles two administrative years, the said deductions shall be adjusted for any proportionate period of the contract term in which the amount thereof or of either subcomponent changes for purposes of said paragraph 10. Any price for a partial acre-foot shall be computed prorata. Payments shall be due and payable on the principle that over extractions under the agreement are of the last water pumped in the fiscal year, and shall be payable as the agreement shall provide.

(5) They shall contain provisions that:

(a) All of such agreements (but not less than all) shall be subject to termination by Plaintiff if, in the Judgment of Plaintiff's Board of Directors, the conditions or threatened conditions upon which they

were based have abated to the extent over extractions are no longer considered necessary; and (b) that any individual agreement or agreements may be terminated if the Plaintiff's Board of Directors finds that adverse hydrologic circumstances have developed as a result of over extractions by any water purveyor or purveyors which have executed said agreements, or for any other reason that Plaintiff's Board of Directors finds good and sufficient.

(c) Other matters applicable to such agreements and over pumping thereunder are as follows, without need for express provisions in the agreements;

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

(2) The total quantity of permitted over pumping under all said agreements during said four months shall not exceed Seventeen thousand (17,000) acre feet, but the individual water purveyor shall not be responsible or affected by any violation of this requirement. That total is additional to over extractions otherwise permitted under this Judgment.

(3) Only one four month period may be utilized by Plaintiff in entering into such agreements, as to any one emergency or continuation thereof declared by MWD's Board of Directors under paragraph 6(a).

(4) Plaintiff may utilize the ex parte provisions of Part IV of this Judgment in lieu of the authority

contained herein (which ex parte provisions are not limited as to time, nature of relief, or terms of any agreements), but neither Plaintiff nor any other party shall utilize both as to any one such emergency or continuation thereof.

(5) If any party claims it is being damaged or threatened with damage by the over extractions by any party to such an agreement, the first party or the Watermaster may seek appropriate action of the Court for termination of any such agreement upon notice of hearing to the party complaining, to the party to said agreement, to the plaintiff, and to any parties who have filed a request for special notice. Any termination shall not affect the obligation of the party to make payments under the agreement for over extractions which did occur thereunder.

(6) Plaintiff shall maintain separate accounting of the proceeds from payments made pursuant to agreements entered into under this part. Said fund shall be utilized solely for purposes of replenishment in replacement of waters in Central Basin and West Basin. Plaintiff shall as soon as practicable cause replenishment in Central Basin by the amounts to be overproduced pursuant to this Paragraph 6 commencing at Page 63, whether through spreading, injection, or in lieu agreements.

(7) Over extractions pursuant to the agreements shall not be subject to the "make up" provisions of the

Judgment as amended, provided that if any party fails to make payments as required by the agreement, Plaintiff may require such "make up" under Paragraph 3, Subpart B, Part III of the Judgment (Page 62).

(8) Water Purveyor under any such agreement may, and is encouraged to enter into appropriate arrangements with customers who have water rights in Central Basin under or pursuant to this Judgment whereby the Water Purveyor will be assisted in meeting the objectives of the agreement.

(9) Nothing in this Paragraph 6 limits the exercise of the reserved jurisdiction of the court except as provided in subparagraph (c) (4) above.

7. Exemption for Extractors of Contaminated Groundwater. Any party herein may petition the Replenishment District for a Non-consumptive Water Use Permit as part of a project to remedy or ameliorate groundwater contamination. If the petition is granted as set forth in this part, the petitioner may extract the groundwater as permitted hereinafter, without the production counting against the petitioner's production rights.

(a) If the Board of the Replenishment District determines by Resolution that there is a problem of groundwater contamination that a proposed program will remedy or ameliorate, an operator may make extractions of groundwater to remedy or ameliorate that problem without the production counting against the petitioner's production rights if the water is not applied to beneficial surface use, its extractions are made in compliance with all the terms and conditions of the Board Resolution, and

the Board has determined in the Resolution either of the following:

(1) The groundwater to be extracted is unusable and cannot be economically treated or blended for use with other water.

(2) The proposed program involves extraction of usable water in the same quantity as will be returned to the underground without degradation of quality.

(b) The Resolution may provide those terms and conditions the Board deems appropriate, including, but not limited to, restrictions on the quantity of the extractions to be so exempted, limitations on time, periodic reviews, requirement of submission of test results from a Board-approved laboratory, and any other relevant terms or conditions.

(c) Upon written notice to the operator involved, the Board may rescind or modify its Resolution. The rescission or modification of the Resolution shall apply to groundwater extractions occurring more than ten days after the rescission or modification. Notice of rescission or modification shall be either mailed first class mail, postage prepaid, at least two weeks prior to the meeting of the Board at which the rescission or modification will be made to the address of record of the operator or personally delivered two weeks prior to the meeting.

(d) The Board's decision to grant, deny, modify or revoke a permit or to interrupt or stop a permitted project may be appealed to this court within thirty days of the notice thereof to the applicant and upon thirty days notice to the designees of all parties herein.

(e) The Replenishment District shall monitor and periodically inspect the project for compliance with the terms and conditions for any permit issued pursuant to these provisions.

(f) No party shall recover costs from any other party herein ~~on~~ in connection with ~~determinators~~ determinations made with respect to this part.

C. Exchange Pool Provisions.

(1) Definitions.

For purposes of these Exchange Pool provisions, the following words and terms have the following meanings:

(a) "Exchange Pool" is the arrangement hereinafter set forth whereby certain of the parties, ("Exchangees") may, notwithstanding the other provisions of the judgment, extract additional water from Central Basin to meet their needs, and certain other of the parties ("Exchangors"), reduce their extractions below their Allowed Pumping Allocations in order to permit such additional extractions by others.

(b) "Exchangor" is one who offers, voluntarily or otherwise, pursuant to subsequent provisions, to reduce its extractions below its Allowed Pumping Allocation in order to permit such additional extractions by others.

(c) "Exchangee" is one who requests permission to extract additional water from Central Basin.

(d) "Undue hardship" means unusual and severe economic or operational hardship, other than that arising (i) by reason of any differential in quality that might exist between water extracted from Central Basin and water available for importation

or (ii) by reason of any difference in cost to a party in subscribing to the Exchange Pool and reducing its extractions of water from Central Basin in an equivalent amount as opposed to extracting any such quantity itself.

2. Parties Who May Purchase Water Through the Exchange Pool. Any party not having existing facilities for the taking of imported water as of the beginning of any Administrative year, and any party having such facilities as of the beginning of any Administrative year who is unable, without undue hardship, to obtain, take, and put to beneficial use, through its distribution system or systems existing as of the beginning of the particular Administrative year, imported water in a quantity which, when added to its Allowed Pumping Allocation for that particular Administrative year, will meet its estimated needs for that particular Administrative year, may purchase water from the Exchange Pool, subject to the limitations contained in this Subpart C of this Part III (Subpart "C" hereinafter).

3. Procedure for Purchasing Exchange Pool Water. Not later than the 40th day following the commencement of each Administrative year, each such party desiring to purchase water from the Exchange Pool shall file with the Watermaster a request to so purchase, setting forth the amount of water in acre feet that such party estimates that it will require during the then current Administrative year in excess of the total of:

(a) Its Allowed Pumping Allocation for that particular Administrative year; and

(b) The imported water, if any, which it estimates it will be able, without undue hardship, to obtain, take and put to

beneficial use, through its distribution system or systems existing as of the beginning of that particular Administrative year.

Any party who as of the beginning of any Administrative year has existing facilities for the taking of imported water and who makes a request to purchase from the Exchange Pool must provide with such request substantiating data and other proof which, together with any further data and other proof requested by the Watermaster, establishes that such party is unable without undue hardship, to obtain, take and put to beneficial use through its said distribution system or systems a sufficient quantity of imported water which, when added to its said Allowed Pumping Allocation for the particular Administrative year, will meet its estimated needs. As to any such party, the Watermaster shall make a determination whether the party has so established such inability, which determination shall be subject to review by the court under the procedure set forth in Part II of this judgment. Any party making a request to purchase from the Exchange Pool shall either furnish such substantiating data and other proof, or a statement that such party had no existing facilities for the taking of imported water as of the beginning of that Administrative year, and in either event a statement of the basis for the quantity requested to be purchased.

4. Subscriptions to Exchange Pool.

(a) Required Subscription. Each party having existing facilities for the taking of imported water as of the beginning of any Administrative year hereby subscribed to the Exchange Pool for purposes of meeting Category (a) requests thereon, as more

particularly defined in paragraph 5 of this Subpart C, twenty percent (20%) of its Allowed Pumping Allocation, or the quantity of imported water which it is able, without undue hardship, to obtain, take and put to beneficial use through its distribution system or systems existing as of the beginning of the particular Administrative year in addition to such party's own estimated needs for imported water during that water year, whichever is the lesser. A party's subscription under this subparagraph (a) and subparagraph (b) of this paragraph 4 is sometimes hereinafter referred to as a 'required subscription'.

(b) Report to Watermaster by Parties with Connections and Unable to Subscribe 20%. Any party having existing facilities for the taking of imported water and estimating that it will be unable, without undue hardship, in that Administrative year to obtain, take and put to beneficial use through its distribution system or systems existing as of the beginning of that Administrative year, sufficient imported water to further reduce its extractions from the Central Basin by twenty percent (20%) of its Allowed Pumping Allocation for purposes of providing water to the Exchange Pool must furnish not later than the 40th day following the commencement of such Administrative year substantiating data and other proof which, together with any further data and other proof requested by the Watermaster, establishes said inability or such party shall be deemed to have subscribed twenty percent (20%) of its Allowed Pumping Allocation for the purpose of providing water to the Exchange Pool. As to any such party so contending such inability, the Watermaster shall make a determination whether the party has so established such

inability, which determination shall be subject to review by the Court under the procedure set forth in Part II of this judgment.

(c) Voluntary Subscriptions. Any party, whether or not having facilities for the taking of imported water, who desires to subscribe to the Exchange Pool a quantity or further quantity of its Allowed Pumping Allocation, may so notify the Watermaster in writing of the quantity of such offer on or prior to the 40th day following the commencement of the particular Administrative year. Such subscriptions are referred to hereinafter as "voluntary subscriptions." Any Exchangor who desires that any part of its otherwise required subscription not needed to fill Category (a) requests shall be available for Category (b) requests may so notify the Watermaster in writing on or prior to said 40th day. If all of that Exchangor's otherwise required subscription is not needed in order to fill Category (a) requests, the remainder of such required subscription not so used, or such part thereof as such Exchangor may designate, shall be deemed to be a voluntary subscription.

5. Limitations on Purchases of Exchange Pool Water and Allocation of Requests to Purchase Exchange Pool Water Among Exchangors.

(a) Categories of Requests. Two categories of Exchange Pool requests are established as follows:

(1) Category (a) requests. The quantity requested by each Exchangee, whether or not that Exchangee has an Allowed Pumping Allocation, which quantity is not in excess of 150% of its Allowed Pumping Allocation, if any, or 100 acre feet, whichever is greater. Requests or portions thereof within the

above criteria are sometimes hereinafter referred to as "Category (a) requests."

(2) Category (b) requests. The quantity requested by each Exchangee having an Allowed Pumping Allocation to the extent the request is in excess of 150% of that Allowed Pumping Allocation or 100 acre feet, whichever is greater, and the quantity requested by each Exchangee having no Allowed Pumping Allocation to the extent the request is in excess of 100 acre feet. Portions of requests within the above criteria are sometimes hereinafter referred to as "Category (b) requests."

(b) Filling of Category (a) Requests. All Exchange Pool subscriptions, required and voluntary, shall be available to fill Category (a) requests. Category (a) requests shall be filled first from voluntary subscriptions, and if voluntary subscriptions should be insufficient to fill all Category (a) requests required subscriptions shall be then utilized to fill Category (a) requests. All Category (a) requests shall be first filled before any Category (b) requests are filled.

(c) Filling of Category (b) Requests. To the extent that voluntary subscriptions have not been utilized in filling Category (a) requests, Category (b) requests shall be filled only out of any remaining voluntary subscriptions. Required subscriptions will then be utilized for the filling of any remaining Category (b) requests.

(d) Allocation of Requests to Subscriptions When Available Subscriptions Exceed Requests. In the event the quantity of subscriptions available for any category of requests exceeds those requests in that category, or exceeds the remainder

of those requests in that category, such requests shall be filled out of such subscriptions proportionately in relation to the quantity of each subscription.

(e) Allocation of Subscriptions to Category (b) Requests in the Event of Shortage of Subscriptions. In the event available subscriptions are insufficient to meet Category (b) requests, available subscriptions shall be allocated to each request in the proportion that the particular request bears to the total requests of the particular category.

6. Additional Voluntary Subscriptions. If subscriptions available to meet the requests of Exchangees are insufficient to meet all requests, additional voluntary subscriptions may be solicited and received from parties by the Watermaster. Such additional subscriptions shall be allocated first to Category (a) requests to the extent unfilled, and next to Category (b) requests to the extent unfilled. All allocations are to be otherwise in the same manner as earlier provided in paragraph 5 (a) through 5 (e) inclusive.

7. Effect if Category (a) Requests Exceed Available Subscriptions, Both Required and Voluntary. In the event that the quantity of subscriptions available to fill Category (a) requests is less than the total quantity of such requests, the Exchangees may, nonetheless, extract the full amount of their Category (a) requests otherwise approved by the Watermaster as if sufficient subscriptions were available. The amounts received by the Watermaster on account of that portion of the approved requests in excess of the total quantities available from Exchangors shall either be paid by the Watermaster to Central &

West Basin Water Replenishment District in trust for the purpose of purchasing imported water and spreading the same in Central Basin for replenishment thereof, or credited to an account of said Plaintiff District on the books of the Watermaster, at the option of said Plaintiff District. Thereafter said Plaintiff District may, at any time, withdraw said funds or any part thereof so credited in trust for the aforesaid purpose, or may by the 40th day of any Administrative year notify the Watermaster that it desires all or any portion of said funds to be expended by the Watermaster for the purchase of water available from subscriptions by Exchangors in the event the total quantity of such subscriptions exceeds the total quantity of approved requests by parties to purchase Exchange Pool water. To the extent that there is such an excess of available subscriptions over requests and to the extent that the existing credit in favor of Plaintiff District is sufficient to purchase such excess quantity at the price established for Exchange Pool purchases during that Administrative year, the account of the Plaintiff District shall be debited and the money shall be paid to the Exchangors in the same manner as if another party had made such purchase as an Exchangee. The Plaintiff District shall not extract any such Exchange Pool water so purchased.

8. Additional Pumping by Exchangees Pursuant to Exchange Pool Provisions. An Exchangee may extract from Central Basin in addition to its Allowed Pumping Allocation for a particular Administrative year that quantity of water which it has requested to purchase from the Exchange Pool during that Administrative year and which has been allocated to it pursuant

to the provisions of paragraphs 5, 6 and 7. The first pumping by an Exchangee in any Administrative year shall be deemed to be pumping of the party's allocation of Exchange Pool water.

9. Reduction in Pumping by Exchangors. Each Exchangor shall in each Administrative year reduce its extractions of water from Central Basin below its Allowed Pumping Allocation for the particular year in a quantity equal to the quantity of Exchange Pool requests allocated to it pursuant to the provisions of paragraphs 4, 5, 6 and 7 of this Subpart C.

10. Price to be Paid for Exchange Pool Water. The price to be paid by Exchangees and to be paid to Exchangors per acre foot for required and voluntary subscriptions of Exchangors utilized to fill requests on the Exchange Pool by Exchangees shall be the dollar amount computed as follows by the Watermaster for each Administrative year. The "normal" price as of the beginning of the Administrative year charged by Central Basin Municipal Water District (CBMWD) for treated MWD (Metropolitan Water District of Southern California) water used for domestic and municipal purposes shall be determined, and if on that date there are any changes scheduled during that Administrative year in CBMWD's "normal" price for such category of water, the weighted daily "normal" CBMWD price shall be determined and used in lieu of the beginning such price; and there shall be deducted from such beginning or weighted price, as the case may be, the "incremental cost of pumping water in Central Basin" at the beginning of the Administrative year and any then current rate or rates, of assessments levied on the pumping of ground water in Central Basin by Plaintiff District and any other governmental

agency. The "normal" price charged by CBMWD shall be the highest price of CBMWD for normal service excluding any surcharge or higher rate for emergency deliveries or otherwise failing to comply with CBMWD rates and regulations relating to earlier deliveries. The "incremental cost of pumping water in Central Basin" as of the beginning of the Administrative year shall be deemed to be the Southern California Edison Company Schedule No. PA-1 rate per kilowatt-hour, including all adjustments and all uniform authorized additions to the basic rate, multiplied by 560 kilowatt-hours per acre-foot, rounded to the nearest dollar (which number of kilowatt-hours has been determined to represent the average energy consumption to pump an acre-foot of water in Central Basin). In applying said PA-1 rate the charge per kilowatt-hour under the schedule shall be employed and if there are any rate blocks then the last rate block shall be employed. Should a change occur in Edison schedule designations, the Watermaster shall employ that applicable to motors used for pumping water by municipal utilities.

11. Carry-over of Exchange Pool Purchases by Exchangees. An Exchangee who does not extract from Central Basin in a particular Administrative year a quantity of water equal to the total of (a) its Allowed Pumping Allocation for that particular Administrative year, reduced by any authorized amount of carry-over into the next succeeding Administrative year pursuant to the provisions of Subpart A of Part III of this judgment, and (b) the quantity that it purchased from the Exchange Pool for that particular Administrative year, may carry over into the next succeeding Administrative year the right to

extract from Central Basin a quantity equal to the difference between said total and the quantity actually extracted in that Administrative year, but not exceeding the quantity purchased from the Exchange Pool for that Administrative year. Any such carry-over shall be in addition to that provided in said Subpart A of Part III.

If the 'Basinwide Average Exchange Pool Price' in the next succeeding Administrative year exceeds the 'Exchange Pool Price' in the previous Administrative year any such Exchangee exercising such carry-over rights hereinabove provided shall pay to the Watermaster, forthwith upon the determination of the 'Exchange Pool Price' in said succeeding Administrative year, and as a condition to such carry-over rights, an additional amount determined by multiplying the number of acre feet of carry-over by the difference in 'Exchange Pool Price' as between the two Administrative years. Such additional payment shall be miscellaneous income to the Watermaster which shall be applied by him against that share of the Watermaster's budget to be paid by the parties to this Agreement for the second Administrative year succeeding that in which the Exchange Pool water was so purchased.

12. Notification by Watermaster to Exchangors and Exchangees of Exchange Pool Requests and Allocations Thereof and Price of Exchange Pool Water. Not later than the 65th day after the commencement of each Administrative year, the Watermaster shall determine and notify all Exchangors and Exchangees of the total of the allocated requests for Exchange Pool water and shall provide a schedule divided into categories of requests showing

the quantity allocated to each Exchangee and a schedule of the allocation of the total Exchange Pool requirements among the Exchangors. Such notification shall also advise Exchangors and Exchangees of the prices to be paid to Exchangors for subscriptions utilized and the Exchange Pool Price for that Administrative year as determined by the Watermaster. The determinations of the Watermaster in this regard shall be subject to review by the Court in accordance with the procedure set forth in Part II of this judgment.

13. Payment by Exchangees. Each Exchangee shall, on or prior to last day of the third month of each Administrative year, pay to the Watermaster one-quarter of said price per acre-foot multiplied by the number of acre feet of such party's approved request and shall, on or before the last day of each of the next succeeding three months, pay a like sum to the Watermaster. Such amounts must be paid by each Exchangee regardless of whether or not it in fact extracts or uses any of the water it has requested to purchase from the Exchange Pool.

14. Payments to Exchangors. As soon as possible after receipt of moneys from Exchangees, the Watermaster shall remit to the Exchangors their prorata portions of the amount so received in accordance with the provisions of paragraph 10 above.

15. Delinquent Payments. Any amounts not paid on or prior to any due date above shall carry interest at the rate of 1% per month or any part of a month. Any amounts required to be so paid may be enforced by the equitable powers of the Court, including, but not limited to, the injunctive process of the Court. In addition thereto, the Watermaster, as Trustee for the

Exchangors, may enforce such payment by any appropriate legal action, and shall be entitled to recover as additional damages reasonable attorneys' fees incurred in connection therewith. If any Exchangee shall fail to make any payments required of it on or before 30 days after the last payment is due, including any accrued interest, said party shall thenceforward not be entitled to purchase water from the Exchange Pool in any succeeding Administrative year except upon order of the Court, upon such conditions as the Court may impose.

IV. CONTINUING JURISDICTION OF THE COURT.

The Court hereby reserves continuing jurisdiction and upon application of any interested party, or upon its own motion, may review and redetermine the following matters and any matters incident thereto:

(a) Its determination of the permissible level of extractions from Central Basin in relation to achieving a balanced basin and an economic utilization of Central Basin for ground water storage, taking into account any then anticipated artificial replenishment of Central Basin by governmental agencies for the purpose of alleviating what would otherwise be annual overdrafts upon Central Basin and all other relevant factors.

(b) Whether in accordance with applicable law any party has lost all or any portion of his rights to extract ground water from Central Basin and, if so, to ratably adjust the Allowed Pumping Allocations of the other parties and ratably thereto any remaining Allowed Pumping Allocation of such party.

(c) To remove any Watermaster appointed from time to time and appoint a new Watermaster; and to review and revise the duties, powers and responsibilities of the Watermaster and to make such other and further provisions and orders of the Court that may be necessary or desirable for the adequate administration and enforcement of the judgment.

(d) To revise the price to be paid by Exchangees and to Exchangors for Exchange Pool purchases and subscriptions.

(e) In case of emergency or necessity, to permit extractions from Central Basin for such periods as the Court may determine: (i) ratably in excess of the Allowed Pumping Allocations of the parties; or (ii) on a non-ratable basis by certain parties if either compensation or other equitable adjustment for the benefit of the other parties is provided. Such overextractions may be permitted not only for emergency and necessity arising within Central Basin area, but to assist the remainder of the areas within The Metropolitan Water District of Southern California in the event of temporary shortage or threatened temporary shortage of its imported water supply, or temporary inability to deliver the same throughout its area, but only if the court is reasonably satisfied that no party will be irreparably damaged thereby. Increased energy cost for pumping shall not be deemed irreparable damage. Provided, however, that the provisions of this subparagraph will apply only if the temporary shortage, threatened temporary shortage, or temporary inability to deliver was either not reasonably avoidable by the Metropolitan Water District, or if reasonably avoidable, good reason existed for not taking the steps necessary to avoid it.

(f) To review actions of the Watermaster.

(g) To assist the remainder of the areas within The Metropolitan Water District of Southern California within the parameter set forth in subparagraph (e) above.

(h) To provide for such other matters as are not contemplated by the judgment and which might occur in the future, and which if not provided for would defeat any or all of the purposes of this judgment to assure a balanced Central Basin subject to the requirements of Central Basin Area for water required for its needs, growth and development.

The exercise of such continuing jurisdiction shall be after 30 days notice to the parties, with the exception of the exercise of such continuing jurisdiction in relation to subparagraphs (e) and (g) above, which may be ex parte, in which event the matter shall be forthwith reviewed either upon the Court's own motion or the motion of any party upon which 30 days notice shall be so given. Within ten (10) days of obtaining any ex parte order, the party so obtaining the same shall mail notice thereof to the other parties. If any other party desires Court review thereof, the party obtaining the ex parte order shall bear the reasonable expenses of mailing notice of the proceedings, or may in lieu thereof undertake the mailing. Any contrary or modified decision upon such review shall not prejudice any party who relied on said ex parte order.

V. GENERAL PROVISIONS.

1. Judgment Constitutes Inter Se Adjudication. This judgment constitutes an inter se adjudication of the respective rights of all parties, except as may be otherwise specifically

indicated in the listing of the rights of the parties at pages 12 through 52 of this judgment, or in Appendix "2" hereof.

2. Assignment, Transfer, Etc., of Rights. Subject to the other provision of this judgment, and any rules and regulations of the Watermaster requiring reports relative thereto, nothing herein contained shall be deemed to prevent any party hereto from assigning, transferring, licensing or leasing all or any portion of such water rights as it may have with the same force and effect as would otherwise be permissible under applicable rules of law as exist from time to time.

3. Service Upon and Delivery to Parties of Various Papers. Service of the judgment on those parties who have executed that certain Stipulation and Agreement for Judgment or who have filed a notice of election to be bound by the Exchange Pool provisions shall be made by first class mail, postage prepaid, addressed to the designee and at the address designated for that purpose in the executed and filed Counterpart of the Stipulation and Agreement for Judgment or in the executed and filed "Notice of Election to be Bound by Exchange Pool Provisions", as the case may be, or in any substitute designation filed with the Court.

Each party who has not heretofore made such a designation shall, within 30 days after the judgment shall have been served upon that party, file with the Court, with proof of service of a copy upon the Watermaster, a written designation of the person to whom and the address at which all future notices, determinations, requests, demands, objections, reports and other

papers and processes to be served upon that party or delivered to that party are to be so served or delivered.

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

Delivery to or service upon any party by the Watermaster, by any other party, or by the Court, or any item required to be served upon or delivered to a party under or pursuant to the judgment may be by deposit in the mail, first class, postage prepaid, addressed to the designee and at the address in the latest designation filed by that party.

4. Judgment Does Not Affect Rights, Powers, Etc., of Plaintiff District. Nothing herein constitutes a determination or adjudication which shall foreclose Plaintiff District from exercising such rights, powers, privileges and prerogatives as it may now have or may hereafter have by reason of provisions of law.

5. Continuation of Order Under Interim Agreement. The order of Court made pursuant to the "Stipulation and Interim Agreement and Petition for Order" shall remain in effect through the water year in which this judgment shall become final (subject to the reserved jurisdiction of the Court).

6. Effect of: Extractions by Exchangees; Reductions in Extractions. With regard to Exchange Pool purchases, the first extractions by each Exchangee shall be deemed the extractions of the quantities of water which that party is

entitled to extract pursuant to his allocation from the Exchange Pool for that Administrative year. Each Exchangee shall be deemed to have pumped his Exchange Pool request so allocated for and on behalf of each Exchangor in proportion to each Exchangor's subscription to the Exchange Pool which is utilized to meet Exchange Pool requests. No Exchangor shall ever be deemed to have relinquished or lost any of its rights determined in this judgment by reason of allocated subscriptions to the Exchange Pool. Each Exchangee shall be responsible as between Exchangors and that Exchangee, for any tax or assessment upon the production of ground water levied for replenishment purposes by the Central and West Basin Water Replenishment District or by any other governmental agency with respect to water extracted by such Exchangee by reason of Exchange Pool allocations and purchases. No Exchangor or Exchangee shall acquire any additional rights, with respect to any party to this action, to extract waters from Central Basin pursuant to Water Code Section 1005.1 by reason of the obligations pursuant to and the operation of the Exchange Pool.

7. Judgment Binding on Successors, Etc. This judgment and all provisions thereof are applicable to and binding upon not only the parties to this action, but as well to their respective heirs, executors, administrators, successors, assigns, lessees, licensees and to the agents, employees and attorneys in fact of any such persons.

8. Costs. No party shall recover its costs herein as against any other party.

9. Intervention of Successors in Interest and New Parties. Any person who is not a party (including but not limited to successors or parties who are bound by this judgment) and who proposes to produce water from the basin or exercise water rights of a predecessor may seek to become a party to this Judgment through a Stipulation in Intervention entered into with the Plaintiff. Plaintiff may execute said Stipulation on behalf of the other parties herein, but such Stipulation shall not preclude a party from opposing such intervention at the time of the court hearing thereon. Said Stipulation for Intervention must thereupon be filed with the Court, which will consider an order confirming said intervention following thirty (30) days notice to the parties. Thereafter, if approved by the Court, such intervenor shall be a party bound by this Judgment and entitled to the rights and privileges accorded under the physical solution herein.

10. Effect of this Amended Judgment on Orders Filed Herein. This Second Amended Judgment shall not abrogate such rights of additional carry-over of unused water rights as may otherwise exist pursuant to orders herein filed June 2, 1977 and September 29, 1977.

THE CLERK WILL ENTER THIS SECOND AMENDED JUDGMENT FORTHWITH.

DATED: May 6, 1991

/s/ Florence T. Pickard
Judge of the Superior Court

H WATER CONSERVATION ORDINANCE (DRAFT)

ORDINANCE NO. XXX

City of Paramount

Water Conservation Ordinance

June, 2011

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Water Conservation Ordinance

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ORDINANCE NO. XXX

AN ORDINANCE OF THE CITY OF PARAMOUNT ESTABLISHING A WATER CONSERVATION AND WATER SUPPLY SHORTAGE PROGRAM AND REGULATIONS

Section I: Title

This ordinance will be known at the City of Paramount Water Conservation Program.

Section II: Findings

WHEREAS, a reliable minimum supply of potable water is essential to the public health, safety and welfare of the people and economy of the southern California region;

WHEREAS, Southern California is a semi-arid region and is largely dependent upon imported water supplies. A growing population, climate change, environmental concerns and other factors in other parts of the State and western United States, make the region highly susceptible to water supply reliability issues;

WHEREAS, careful water management that includes active water conservation measures not only in times of drought, but at all times, is essential to ensure reliable minimum supply of water to meet current and future water supply needs;

WHEREAS, Article X, Section 2 of the California Constitution declares that the general welfare requires that water resources be put to beneficial use, waste or unreasonable use or unreasonable method of use of water be prevented, and conservation of water be fully exercised with a view to the reasonable and beneficial use thereof;

WHEREAS, California Water Code Section 375 et seq. requires water suppliers to adopt and enforce a comprehensive water conservation program to reduce water consumption and conserve supplies;

WHEREAS, California Water Code section 350 et seq. authorizes any public entity, including a special district, to declare a water shortage emergency and, upon declaration of that emergency, adopt regulations and restrictions on the delivery and consumption of water in order to conserve water resources during the period of the emergency and until the supply of water available for distribution by the suppliers has been replenished or augmented;

WHEREAS, the adoption and enforcement of water conservation and supply shortage program is necessary to manage the City's potable water supply in the short- and long-term and to avoid or minimize the impacts of drought and shortage within the City. Such a program is essential to ensure a reliable and sustainable minimum supply of water for the public health, safety and welfare; and

WHEREAS, based upon the above findings, the City's legal counsel advises, and the Board finds, that actions taken pursuant to this ordinance are categorically exempt from CEQA according to 14 California Code of Regulations 15301 and 15307.

NOW, THEREFORE, BE IT RESOLVED AND DETERMINED THAT THE BOARD OF THE CITY OF PARAMOUNT DOES ORDAIN AS FOLLOWS:

Section III. Declaration of Purpose and Intent

a. The purpose of this ordinance is to establish a water conservation and supply shortage program that will reduce water consumption within the City through conservation, enable effective water supply planning, assure reasonable and beneficial use of water, prevent waste of water, and maximize the efficient use of water within the City to avoid and minimize the effect and hardship of water shortage to the greatest extent possible.

b. This ordinance establishes three stages of water supply shortage response actions to be implemented during times of declared water shortage or declared water shortage emergency, with increasing restrictions on water use in response to worsening drought or decreasing supplies and emergency conditions.

Section IV. Definitions

a. The following words and phrases whenever used in this ordinance shall have the meaning defined in this section:

1. "City" means the City of Paramount.
2. "Landscape Irrigation System" means an irrigation system with pipes, hoses, spray heads, or sprinkling devices that are operated by hand or through an automated system.
3. "Person" means any natural person or persons, corporation, public or private entity, governmental agency or institution or any other user of water provided by the City.
4. "Potable Water" means water which is suitable for drinking.
5. "Recycled Water" means the reclamation and reuse of non-potable water for beneficial use.

Section V. Application

a. The provisions of this ordinance apply to any person in the use of any potable water provided by the City.

b. The provisions of this ordinance do not apply to uses of water necessary to protect public health and safety or for essential government services, such as police, fire and other similar emergency services.

c. The provisions of this ordinance do not apply to the use of recycled water.

d. The provisions of this ordinance do not apply to the use of water by commercial nurseries and commercial growers to sustain plants, trees, shrubs, crops or other vegetation intended for commercial sale.

e. This ordinance is intended solely to further the conservation of water. It is not intended to implement any provision of federal, state, or local statutes, ordinances, or regulations relating to protection of water quality or control of drainage or runoff. Refer to the local jurisdiction or Regional Water Quality Control Board for information on any state based ordinances and stormwater management plans.

Section VI: Stage 1 Water Supply Shortage

a. A Stage 1 Water Supply Shortage condition exists when the City determines, in its sole discretion, that due to drought or other supply reductions, a consumer demand reduction is required in order to ensure that sufficient supplies will be available to meet anticipated demands. Upon the declaration of a Stage 1 Water Supply Shortage condition, the City shall implement the mandatory Stage 1 conservation measures identified in this section. These requirements are in addition to the water conservation items stated in the Waste Water Ordinance.

b. Water Conservation Measures: The following water conservation requirements apply during a declared Stage 1 Water Supply Shortage:

1. Limits on Watering: Watering or irrigation of lawn, landscape or other vegetated area with potable water is limited to 3 days per week. During the months of November through March, watering or irrigation of lawn, landscape or other vegetated area with potable water is limited to no more than 2 days per week. This provision does not apply to landscape irrigation systems that exclusively use very low-flow drip type irrigation systems when no emitter produces more than 2 gallons of water per hour. This provision does not apply to use of a hand-held bucket or similar container, a hand-held hose equipped with a positive self closing water shut-off device, or for very short periods for the express purpose of adjusting or repairing an irrigation system.
2. Obligation to Fix Leaks, Breaks or Malfunctions: All leaks, breaks, or other malfunctions in the water user's plumbing, distribution, or irrigation system must be remedied within seventy two (72) hours of observation and/or notification by the City.
3. No Excessive Water Flow or Run-Off: Watering or irrigation of any lawn, landscape or other vegetated area in a manner that causes or allows excessive water flow or run-off onto an adjoining sidewalk, driveway, street, alley, gutter or ditch must be must be repaired within 5 days of observation and/or notification by the City.
4. No Washing Down Hard or Paved Surfaces: Washing down hard or paved surfaces, including but not limited to sidewalks, walkways, driveways, parking areas, tennis courts, patios or alleys is prohibited except when necessary to alleviate safety or sanitary hazards and only by use of a hand-held bucket or similar container, a low-volume high pressure cleaning machine equipped to recycle any water used or a low volume high pressure water broom.
5. Re-Circulating Water Required for Water Fountains and Decorative Water Features**:** Operating a water fountain or other decorative water feature that does not use re-circulating water is prohibited.
6. Limits on Washing Vehicles: Using water to wash or clean a vehicle including but not limited to any automobile, truck, van, bus, motorcycle, boat or trailer whether motorized or not is prohibited, except by use of a hand-held bucket or similar container or a hand-held hose equipped with a positive self closing water shut-off nozzle or device.
7. Drinking Water Served Upon Request Only: Restaurants are prohibited from providing drinking water to any person unless expressly requested by that person.
8. Use only recycled water for construction site dust control, consolidation of backfill.

9. Other Prohibited Uses: The Board of Directors may implement other prohibited water uses as determined by the City after notice to customers.

Section VII. Stage 2 Water Supply Shortage

a. A Stage 2 Water Supply Shortage condition exists when the City determines, in its sole discretion, that due to drought or other supply reductions a consumer demand reduction is required in order to ensure that sufficient supplies will be available to meet anticipated demands. Upon the declaration of a Stage 2 Water Supply Shortage condition, the City shall implement the mandatory Stage 2 conservation measures identified in this section.

b. Conservation Measures: In addition to the prohibited uses of water identified in Section VI, the following additional water conservation requirements apply during a declared Stage 2 Water Supply Shortage:

1. Limits on Watering: Watering or irrigation of lawn, landscape or other vegetated area with potable water is limited to 2 days per week. During the months of November through March, watering or irrigation of lawn, landscape or other vegetated area with potable water is limited to no more than 1 day per week. This provision does not apply to landscape irrigation systems that exclusively use very low-flow drip type irrigation systems when no emitter produces more than 2 gallons of water per hour. This provision does not apply to use of a hand-held bucket or similar container, a hand-held hose equipped with a positive self closing water shut-off device, or for very short periods for the express purpose of adjusting or repairing an irrigation system.
2. Obligation to Fix Leaks, Breaks or Malfunctions**:** All leaks, breaks, or other malfunctions in the water user's plumbing, distribution, or irrigation system must be remedied within forty eight (48) hours of observation and/or notification by the City.
3. No filling, cleaning and/or refilling of decorative fountains, ornamental lakes or ponds except to the extent needed to sustain aquatic life, provided that such animals have been actively managed within the water feature prior to declaration of this supply shortage stage.
4. Residential car washing prohibited. Use car washes available with water recycling systems.
5. The filling or topping off of any new or existing residential pools or outdoor spas is prohibited.
6. Planting of new turf grass is prohibited.
7. Outdoor evaporative mist coolers are prohibited.
8. Main line flushing is allowed for emergency purposes only.
9. Other Prohibited Uses: The City may implement other prohibited water uses as determined by the Board of Directors, after notice to Customers.

Section VIII. Stage 3 Water Supply Shortage – Emergency Condition

a. A Stage 3 Water Supply Shortage condition is also referred to as an "Emergency" condition. A Stage 3 Water Supply Shortage condition exists when the City declares a water shortage emergency in a manner and upon the grounds set forth in California Water Code Section 350 et seq.

Upon the declaration of a Stage 3 Water Supply Shortage condition pursuant to California Water Code Section 350 et seq., the City will implement the mandatory Stage 3 conservation measures identified in this section.

b. Additional Conservation Measures: In addition to the prohibited uses of water identified in Sections VI and VII the following water conservation requirements apply during a declared Stage 3 Water Supply Shortage Emergency:

1. Limited Watering or Irrigating**:** Watering or irrigating of lawn, landscape or other vegetated area with potable water is restricted in accordance with allotments as set forth by the City during a Stage 3 Water Supply Shortage. This restriction does not apply to the use of recycled water or to the following categories of use, subject to the hardship waiver provisions as described in Section X:
   a. Maintenance of existing landscape necessary for fire protection;
   b. Maintenance of existing landscape for soil erosion control;
   c. Maintenance of plant materials identified to be rare or essential to the well-being of protected species;
   d. Maintenance of landscape within active public parks and playing fields, daycare centers, golf course greens, and school grounds, provided that such irrigation does not exceed 2 days per week;
   e. Actively irrigated environmental mitigation projects.
2. Obligation to Fix Leaks, Breaks or Malfunctions: All leaks, breaks, or other malfunctions in the water user's plumbing, distribution, or irrigation system must be remedied within twenty four (24) hours of observation and/or notification by the City.
3. Other Prohibited Uses: The City may implement other prohibited water uses as determined by the Board of Directors, after notifying customers.

Section IX. Procedures for Determination/Notification of Water Supply Shortage

a. Determination and notification of a Stage 1 or Stage 2, Water Supply Shortage condition: The existence of a Stage 1 or Stage 2 Water Supply Shortage condition will be declared by resolution of the Board adopted at a regular or special public meeting held in accordance with State law. The mandatory conservation measures applicable to Stage 1 and Stage 2 Water Supply Shortage conditions, respectively, shall take effect on the tenth day after the date the shortage condition is declared. Within five days following the declaration of the shortage condition, the City shall publish a copy of the resolution once in a newspaper used for publication of official notices.

If the Board of Directors establishes a water allocation, the City shall provide notice of the allocation by including it in the regular billing statement or by another mailing to the address to which the City customarily mails the billing statement for fees or charges for on-going water service. A water allocation shall be effective on the fifth day following the date of mailing or at such later date as specified in the notice.

b. Determination and notification of a Stage 3 Water Supply Shortage condition ("Emergency" condition): The existence of a Stage 3 Water Supply Shortage condition may be declared in accordance with the requirements and procedures specified in California Water Code Section 350 et seq.

The mandatory conservation measures applicable to a Stage 3 Water Supply Shortage condition shall take effect immediately upon the Board of Directors declaration of a "Water

Shortage Emergency" pursuant to California Water Code Section 350 et seq. As soon as practicable following the Board's declaration of a "Water Shortage Emergency," the City shall publish a copy of the declaration once in a newspaper used for publication of official notices.

If the Board of Directors establishes a water allocation, the City shall provide notice of the allocation by including it in the regular billing statement or by another mailing to the address to which the City customarily mails the billing statement for fees or charges for on-going water service. A water allocation shall be effective on the fifth day following the date of mailing or at such later date as specified in the notice.

Section X. Hardship Waiver

a. **Undue and Disproportionate Hardship**: If, due to unique circumstances, a specific requirement of this ordinance would result in undue hardship to a person using water or to property upon which water is used, that is disproportionate by the impacts to water users generally or to similar property or classes of water users, then the person may apply for a waiver to the requirements as provided in this section.

b. **Written Finding**: The waiver may be granted or conditionally granted only upon a written finding of the existence of facts demonstrating an undue hardship to a person using water or to property upon which water is used, that is disproportionate to the impacts to water users generally or to similar property or classes of water use due to specific and unique circumstances of the user or the user's property:

1. Application: Application for a waiver shall be on a form prescribed by the City and shall be accompanied by a non-refundable processing fee in an amount set by resolution of the Board.
2. Supporting Documentation: The application may be accompanied by photographs, maps, drawing and other information, including a written statement of the applicant.
3. Required Findings for Variance: An application for a waiver shall be denied unless the appropriate authority finds, based in the information provided in the applications, supporting documents, or such additional information as may be requested, and on water use information for the property as shown by the records of the City or its Agent, all of the following:

    a. That the waiver does not constitute a grant of special privilege inconsistent with the limitations upon other residents and businesses;
    b. That because of special circumstances applicable to the property or its use, the strict application of this ordinance would have a disproportionate impact on the property or use that exceeds the impacts to similarly situated residences and businesses;
    c. That the authorizing of such waiver will not be of substantial detriment to adjacent properties, and will not materially affect the ability of the City to effectuate the purpose of this ordinance and will not be detrimental to the public interest; and
    d. That the condition or situation of the subject property or the intended use of the property for which the waiver is sought is not common or general in nature.

4. **Approval Authority**: The City Manager (or designee) shall exercise approval authority and act upon any completed application no later than ten (10) days after submittal and may approve, conditionally approve, or deny the waiver. The applicant

requesting the waiver shall be promptly notified in writing of any action taken. Unless specified otherwise at the time a waiver is approved the waiver applies to the subject property during the term of the mandatory water supply shortage condition.

5. **Appeals to the Board**: An applicant can appeal a decision or condition to the City Manager on a waiver application to the City of Paramount within 10 days of the decision upon written request for a hearing. The request shall state the grounds for the appeal. At a public meeting, the City of Paramount shall act as the approval authority and review the appeal following the regular waiver procedure. The decision of the City of Paramount is final.

Section XI. Penalties and Violations

a. **Misdemeanor**: Any violation of City ordinances may be prosecuted as a misdemeanor punishable by imprisonment in the county jail for not more than thirty (30) days, or by a fine not exceeding one thousand dollars ($1,000), or by both.

b. **Civil Penalties**: Civil penalties for failure to comply with any provisions of the ordinance shall be as follows:

Stage 1

1. First Violation: The City shall issue a written courtesy door hanger describing the violation and deliver a copy of this ordinance by mail.
2. Second Violation: A second violation within the preceding twelve (12) calendar months is punishable by a fine not to exceed one hundred dollars ($100.00).
3. Third Violation: A third violation within the preceding twelve (12) calendar months is punishable by a fine not to exceed one hundred and fifty dollars ($150.00).
4. Fourth Violation: A fourth violation is punishable by a fine not to exceed two hundred dollars ($200.00).
5. Fifth and Subsequent Violations: A fifth and subsequent violation is punishable by a fine not to exceed two hundred and fifty dollars ($250.00).
    a. Water Flow Restrictor: In addition to any fines, the City may install a water flow restrictor device of approximately one gallon per minute capacity for services up to one and one-half inch size and competitively sized restrictors for larger services after written notice of intent to install a restrictor for a minimum of forty-eight (48) hours.

Stages 2 & 3

1. First Violation: The first violation is punishable by a fine not to exceed one hundred dollars ($100.00).
2. Second Violation: A second violation within the preceding twelve (12) calendar months is punishable by a fine not to exceed two hundred dollars ($200.00).
3. Third Violation: A third violation within the preceding twelve (12) calendar months is punishable by a fine not to exceed two hundred fifty dollars ($250.00).
4. Fourth Violation: A fourth violation is punishable by a fine not to exceed three hundred fifty dollars ($350.00).
5. Fifth and Subsequent Violations: A fifth and subsequent violation is punishable by a fine not to exceed five hundred dollars ($500.00).
    a. Water Flow Restrictor: In addition to any fines, the City may install a water flow restrictor device of approximately one gallon per minute capacity for

services up to one and one-half inch size and competitively sized restrictors for larger services after written notice of intent to install a restrictor for a minimum of forty-eight (48) hours.

b. Termination of Service: In addition to any fines and the installation of a water flow restrictor, the City may disconnect and/or terminate a customer's water service.

c. **Cost of Flow Restrictor and Disconnecting Service**: A person or entity that violates this ordinance is responsible for payment of the City charges for installing and/or removing any flow restricting device and for disconnecting and/or reconnecting service per the City's schedule of charges, then in effect as a charge for installing and/or removing any flow restricting device shall be paid to the City before the device is removed. Nonpayment shall be subject to the same schedules as nonpayment of basic water rates.

d. **Separate Offenses**: Once the City issues a violation for a particular offense, no further notice of violation will be issued for the same offense until such time as the penalty for the offense has been paid or the 10 day period to appeal has expired, whichever occurs first. If an appeal is timely filed after a violation is served, then no further notice of violation for the same offense will be issued until the appeal has been heard and a decision on that appeal rendered.

e. **Notice of Hearing**:

1. The City shall issue a Notice of Violation by mail or personal delivery at least ten (10) days before taking enforcement action and said notice shall describe the action to be taken. A customer may appeal the Notice of Violation by filing a written notice of appeal with the City no later than the close of business on the day before the date scheduled for enforcement action. Any Notice of Violation not timely appealed shall be final. Upon receipt of a timely appeal, a hearing on the appeal shall be scheduled in a timely manner, and the City shall mail written notice of the hearing to the customer at least ten (10) days before the date of the said hearing.
2. Pending receipt of a written appeal or pending a hearing pursuant to an appeal, the City may take appropriate steps to prevent the unauthorized use of water as appropriate to the nature an extent of the violations and the current declared water Stage condition.

Section XII. Severability

If any section, subsection, sentence, clause or phrase in this ordinance or the application thereof to any person or circumstance is for any reason held invalid, the validity of the remainder of the ordinance or the application of such provision to other persons or circumstances shall be adopted thereby. The Board of Directors hereby declares it would have passed this ordinance and each section, subsection, sentence, clause or phrase thereof, irrespective of the fact that one or more sections, subsections, sentences, clauses, or phrases or the application thereof to any person or circumstance be held invalid.

Section XIII. Effective Date

This Ordinance is effective upon adoption.

PASSED, APPROVED AND ADOPTED this ___ day of _____, 20__.

ORDINANCE 825

CITY OF PARAMOUNT
COUNTY OF LOS ANGELES

ORDINANCE NO. 825

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF PARAMOUNT, AMENDING CHAPTER 44 OF THE PARAMOUNT MUNICIPAL CODE, BY ADDING ARTICLE XXIV DEALING WITH WATER-EFFICIENT LANDSCAPE PROVISIONS.

WHEREAS, it is the policy of the City of Paramount to promote the conservation and efficient use of water and to prevent the waste of this resource; and

WHEREAS, landscape design, installation, and maintenance can and should be water-efficient; and

WHEREAS, the City of Paramount has encouraged water conservation through the requirement of landscaping and irrigation designs which utilize water efficient plant material and irrigation systems; and

WHEREAS, the City of Paramount will continue to encourage the efficient use of water and the prevention of waste of this resource through utilization of recycled water for irrigation purposes; and

WHEREAS, the City of Paramount further conserves imported water by obtaining eighty percent of City water from City-owned wells; and

WHEREAS, the State of California, in 1990, added Chapter 10.8, titled the "Water Conservation in Landscaping Act", to the California Government Code; and

WHEREAS, said Act provides that each city must adopt a water efficient landscape ordinance or enforce the provisions of the State's model ordinance; and

WHEREAS, said Act requires each city that adopts a water efficient landscape ordinance after the adoption of the State's model ordinance, to consider the provisions of the State's model ordinance; and

WHEREAS, the City of Paramount considered the provisions of the State's model ordinance in the adoption of it's water efficient landscape ordinance.

NOW, THEREFORE, the City Council of the City of Paramount does ordain as follows:

Section 1: Chapter 44 of the Paramount Municipal Code is hereby amended by adding Article XXIV:

Article XXIV. Water-Efficient Landscape Provisions.

Sec. 44-264. Intent and purpose.

It is the intent and purpose of this article to establish standards and procedures for the design, installation, and management of water conserving landscapes and water-efficient irrigation systems in order to utilize available plant, water, and land resources to avoid excessive landscape water demands and to foster long-term water conservation while ensuring high quality landscape design, and respecting the economic, environmental, aesthetic and life-style choices of individuals and property owners.

The City of Paramount recognizes that landscaping has numerous positive effects and values in the community, including cleaning the air and water, preventing erosion, offering fire protection, replacing ecosystems displaced by development, providing areas for active and passive recreation, and providing aesthetic enhancement of the built

environment. The City also recognizes that water conservation is a long-term priority in California. The City expects to improve the overall community by combining the positive influence of landscaping with recognized water-conserving practices.

Sec. 44-265. Definitions.

The following definitions are established:

(a) Automatic controller A mechanical or solid-state timer, capable of operating valve stations to set the days and length of time of a water application.

(b) Backflow prevention device A safety device used to prevent pollution or contamination of the water supply due to the reverse flow of water from the irrigation system.

(c) Hydrozone A portion of the landscaped area having plants with similar water needs that are served by a valve or set of valves with the same schedule.

(d) Landscape area The entire parcel less the building footprint, driveways, non-irrigated portions of parking lots, hardscapes, such as decks and patios, walkways, and other non-porous areas.

(e) Mulch Any material such as leaves, bark, straw, or other materials left loose and applied to the soil surface to reduce evaporation.

(f) Reclaimed water Treated or recycled waste water of a quality suitable for nonpotable uses such as landscape irrigation; not intended for human consumption.

(g) Sprinkler head Device which sprays water through a nozzle.

(h) Static water pressure The pipeline or municipal water supply pressure when water is not flowing.

(i) Turf A surface of earth containing mowed grass with its roots. Cool season grasses include annual bluegrass, Kentucky bluegrass, Perennial rye grass, Red fescue, and Tall fescue. Warm season grasses include Bermuda grass, Kikiyu grass, Seashore paspalum, St. Augustine grass, Zoysia grass, and Buffalo grass.

(j) Valve A device used to control the flow of water in the irrigation system.

(k) Xeriscape A water-conserving garden utilizing drought tolerant and low water use landscaping.

Sec. 44-266. Landscape requirements.

Landscaping shall be installed in all landscape areas in conjunction with the following, except as noted in Section 44-269:

- Any alteration, modification, or expansion of a landscaped area; and/or
- Any expansion that results in an increase of thirty percent (30%) or more of the gross floor area of all structures on the property; and/or
- Any modification or alteration to a building that exceeds 10 percent (10%) of the property's assessed value prior to the modification or alteration.

All existing exempt landscaped areas which will become non-exempt under this Article shall have their existing landscaping and irrigation systems adapted to meet the specifications of this Article. The following landscaping requirements are hereby established for the design of all landscape plans prepared for all properties located within the City of Paramount:

(a) One set of planting and irrigation plans prepared by a California licensed Landscape Architect shall be submitted to the Community Development Department at the same time as building construction drawings are submitted for plan check. These plans will contain all planting and irrigation work to be done concerning the development, as well as utility and trash enclosure locations. Building elevation plans, including materials and colors, shall accompany the landscape submittal for reference. After initial review by the City, the Landscape Architect shall make all noted corrections as required by the City. Subsequently, the Landscape Architect shall submit three final sets of prints to be approved, stamped and signed by the City.

(b) All proposed changes to approved plans are subject to approval by the Community Development Department.

(c) All landscaped areas that are to be dedicated to the City of Paramount shall be designed to meet all the City standards and specifications. Reproducible mylar Record Drawings of all dedicated improvements are required to be submitted to the City.

(d) Landscaping plans specifying the size, type, quantity and location of all plant material shall be submitted to the Director of Community Development for approval. Approval criteria for landscaping plans will consider, but not be limited to, the following:

(1) The adequacy of plant material in achieving a buffer along public streets.

(2) The use of landscaping to enhance the aesthetic quality of property and buildings.

(3) The general suitability of the plan relative to the placement, type and size of plant material selected for screening purposes and aesthetic quality.

(4) The creation of hydrozones to improve irrigation efficiency by grouping plants with similar water requirements together.

(5) The protection and preservation of native species.

(6) The use of landscaping to screen parking areas from public streets.

(7) The creation of xeriscapes.

(e) All required landscaping areas shall be subject to, but not limited to, the following minimum standards:

(1) Planters All landscaping shall be planted in permanent planters surrounded by 6 inch by 6 inch concrete curbing except where a planter abuts a building or concrete block wall. Planters shall be 6 inches below building floor slabs; it this is not possible, appropriate waterproofing of the walls or curbing is required. All areas not devoted to paving or building shall be landscaped and permanently maintained.

(2) Trees

a. All trees shall be a minimum 24-inch box size, or larger, with a ratio of one 36-inch box tree to every three 24-inch box trees planted, unless a waiver is obtained from the Director of Community Development. All boxed specimens shall be rootball staked. Specimen trees larger than 36-inch box size will be required in some projects.

b. The following is a suggested method for meeting tree quantity requirements in projects with little planting space for numerous trees:

TABLE OF TREE EQUIVALENTS

Individual Tree Box Size	Equivalent Number of Trees (24 inch box size)
24 inches	1
36 inches	2
48 inches	3
60 inches	4
72 inches	5

The quanity and size of trees shall be subject to the approval of the Director of Community Development.

(3) Turf All front setback areas shall be fully turfed and substantially mounded as a minimum requirement. Additional plant material used as shrubs and ground cover shall be used to supplement turfed areas.

(4) Shrubs Minimum five-gallon container size.

(f) Every plant shall be installed in the following manner:

(1) Ground cover shall be installed a minimum of eight (8) inches on center spacing.

(2) Shrubs, annuals, semi-annuals, and other plants shall be installed in groups or clusters.

(3) Mulch shall be provided three (3) inches deep in all landscape areas except for ground-cover areas.

(4) Security plant material (plants with thorns) may be used adjacent to buildings and walls where public open-space areas adjoin private open space.

(5) Foundation planting shall be used adjacent to all buildings and walls.

(g) All established healthy plant material shall be saved and protected. If development precludes retention of plant material, then adequate replacement material (based upon type and size of existing plant material) shall be required to mitigate the plant material removed.

(h) Development standards specifying water use classification of landscape species shall be available in the Community Development Department.

Sec. 44-267. Irrigation Requirements.

The following irrigation criteria are established for the preparation of irrigation plans for all properties located within the City of Paramount.

(a) All irrigation shall consist of an automatic drip irrigation system for all non-turf planter areas and conventional irrigation for turf areas. Both types of irrigation systems shall include the following features which shall be shown on the irrigation plan submitted to the Director of Community Development:

(1) Backflow prevention device utilizing reduced pressure or pressure vacuum breaker devices with brass ball valves.

(2) Automatic controller.

(3) Separate irrigation water meter.

(4) Connection to reclaimed water system if subject property is located within 150 feet of a public reclaimed water distribution system, subject to appropriate health standards.

(5) Meter size and type of service line from meter to point of connection (POC).

(6) Available supply in gallons per minute (GPM) and pressure (PSI) at meter to project.

(7) Project main and lateral line PSI and GPM information to be made available on request of City of Paramount Public Works Department.

(8) Location and size of the water meter, gate valves, back flow preventers, automatic valves and the pressure regulator.

(9) Each valve shall be labeled with the number, size and GPM.

(10) All irrigation pipes shall be line-sized. All piping 1/2 inch through 1 1/2 inches shall be Schedule 40 polyvinyl chloride (PVC); all piping 2 inches through 4 inches shall be Class 315 PVC.

(11) All lateral lines shall be buried 12 inches. All pressure lines shall be buried 18 inches. All lines under paving shall be buried 24 inches. All wiring shall follow main lines at the same depth.

(12) All pipes and wires installed under driveways and sidewalks shall be installed in a PVC sleeve. Sleeves for piping shall be two times the pipe diameter.

(13) All heads along paths, sidewalks, driveways and curbs shall be pop-ups on triple swing joints.

(14) Tops of mounds shall be irrigated with sprinklers on separate valves.

(b) Irrigation shall occur only between the hours of 4:00 p.m. and 10:00 a.m. to avoid excessive evaporation.

Sec. 44-268. Landscape and irrigation maintenance.

The following maintenance schedule is established to ensure water use efficiency of the landscape and irrigation system.

(a) Landscape and irrigation systems shall be monitored by the property owner to ensure that the landscape and irrigation system is operating in optimum condition, including but not limited to:

(1) Maintain irrigation lines.

(2) Conduct valve adjustments/repairs.

(3) Conduct sprinkler head adjustments/repairs.

(4) Reset/repair automatic controllers.

(5) Maintain static water pressure at the point of connection to the public water supply.

(6) Aerate and dethatch turf areas.

(7) Replenish mulch.

(8) Prune and weed all landscape areas.

(9) Replace all dead plant material.

If a landscaped area is in a deteriorated condition the property owner may be required to perform an irrigation audit, in accordance with the State of California Landscape Water Management Program - *Landscape Irrigation Auditor Handbook*, hereby incorporated by reference.

Sec. 44-269. Exemptions.

Compliance with the landscape provisions contained herein is required for all properties located within the City of Paramount only in conjunction with alteration or modification of the property except as noted below:

(a) Residential properties developed with one (1) dwelling unit.

Section 2: Severability. If any section, subsection, sentence, clause, phrase, or portion of this ordinance, or the application thereof to any person, firm, corporation or circumstance, is for any reason held to be invalid or unconstitutional by the decision of any court of competent jurisdiction, such decision shall not affect the validity of the remaining portion thereof. The City Council of the City of Paramount hereby declares that it would have adopted this ordinance and each section, subsection, sentence, clause, phrase, or portion thereof, irrespective of the fact that any one or more sections, subsections, sentences, clauses, phrases, or portions be declared invalid or unconstitutional.

Section 3: Effective Date. This ordinance shall take effect thirty (30) days after its adoption, shall be certified as to its adoption by the City Clerk, and shall be published once in the Paramount Journal within fifteen (15) days after its adoption, together with the names and members of the City Council voting for and against the same.

PASSED, APPROVED, AND ADOPTED this 6th day of April, 1993.

Manuel E. Guillen, Mayor

Attest:

William A. Holt, City Clerk

STATE OF CALIFORNIA)
COUNTY OF LOS ANGELES) ss.
CITY OF PARAMOUNT)

I, William A. Holt, City Clerk of the City of Paramount, California, DO HEREBY CERTIFY that the foregoing Ordinance was adopted as Ordinance No. 825 of the City of Paramount at a regular meeting held April 6, 1993, and said Ordinance has been duly signed by the Mayor and attested by the City Clerk and that the same was approved and adopted by the following roll call vote:

AYES:	Councilmembers Caldwell, Harkema, Mulrooney, Vice Mayor Amaro, Mayor Guillen
NOES:	None
ABSENT:	None
ABSTAIN:	None

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the seal of the City of Paramount this 7th day of April, 1993.

William A. Holt, City Clerk

J WATER RATE STRUCTURE

City of Paramount
Water Rate Schedule

Account Type	Fee Code	Meter Size	Minimum Charge	Minimum Units*	1st Tier ($ per unit)	2nd Tier ($ per unit)	Units* January-April 1st Tier	Units* January-April 2nd Tier	Units* May-August 1st Tier	Units* May-August 2nd Tier	Units* September-December 1st Tier	Units* September-December 2nd Tier
Single Family Residential	aa	5/8"	$15.39	10	$2.61	$3.50	11-54	55+	11-60	61+	11-49	50+
Single Family Residential	ab	3/4"	$15.39	10	$2.61	$3.50	11-50	51+	11-51	52+	11-34	35+
Single Family Residential	ac	1"	$28.90	15	$2.61	$3.50	16-91	92+	16-92	93+	16-73	74+
Single Family Residential	ad	1 1/2"	$38.51	20	$2.61	$3.50	21-68	69+	21-97	98+	21-80	81+
Senior Citizen Residential**	ba	5/8"	$14.83	12	$2.49	$3.50	13-40	41+	13-50	51+	13-35	36+
Senior Citizen Residential**	bb	3/4"	$14.83	12	$2.49	$3.50	13-35	36+	13-33	34+	13-49	50+
Senior Citizen Residential**	bc	1"	$27.82	17	$2.49	$3.50	18-88	89+	18-94	95+	18-51	52+
Multi-family Residential (Single Meter)	ca	5/8"	$15.39	10	$2.61	$3.50	11-72	73+	11-99	100+	11-60	61+
Multi-family Residential (Single Meter)	cb	3/4"	$15.39	10	$2.61	$3.50	11-47	48+	11-61	62+	11-49	50+
Multi-family Residential (Single Meter)	cc	1"	$28.90	15	$2.61	$3.50	16-91	92+	16-128	129+	16-70	71+
Multi-family Residential (Common Meter)	da	5/8"	$15.39	10	$2.61	$3.50	11-138	139+	11-146	147+	11-161	162+
Multi-family Residential (Common Meter)	db	3/4"	$15.39	10	$2.61	$3.50	11-79	80+	11-82	83+	11-49	50+
Multi-family Residential (Common Meter)	dc	1"	$28.90	15	$2.61	$3.50	16-211	212+	16-214	215+	16-196	197+
Multi-family Residential (Common Meter)	dd	1 1/2"	$38.51	20	$2.61	$3.50	21-384	385+	21-403	404+	21-378	379+
Multi-family Residential (Common Meter)	de	2"	$57.75	30	$2.61	$3.50	31-653	654+	31-692	693+	31-678	679+
Multi-family Residential (Common Meter)	df	3"	$115.48	60	$2.61	$3.50	61-1,368	1,369+	61-1,032	1,033+	61-1,138	1,139+
Multi-family Residential (Common Meter)	dg	4"	$192.34	100	$2.61	$3.50	101-1,313	1,314+	101-1,099	1,100+	101-1,464	1,465+
Multi-family Residential (Common Meter)	dh	6"	$576.99	200	$2.61	$3.50	201-2,269	2,270+	201-2,851	2,852+	201-3,860	3,861+
Multi-family Residential (Common Meter)	di	8"	$1,155.83	400	$2.61	$3.50	401-2,300	2,301+	401-2,900	2,901+	401-3,900	3,901+
Detached Houses (Common Meter)	ea	5/8"	$15.39	10	$2.61	$3.50	11-105	106+	11-231	232+	11-91	92+
Detached Houses (Common Meter)	eb	3/4"	$15.39	10	$2.61	$3.50	11-69	70+	11-97	98+	11-87	88+
Detached Houses (Common Meter)	ec	1"	$28.90	15	$2.61	$3.50	16-213	214+	16-163	164+	16-177	178+
Detached Houses (Common Meter)	ed	1 1/2"	$38.51	20	$2.61	$3.50	21-315	316+	21-310	311+	21-282	283+
Detached Houses (Common Meter)	ee	2"	$57.75	30	$2.61	$3.50	31-629	630+	31-583	584+	31-460	461+
Detached Houses (Common Meter)	ef	3"	$115.48	60	$2.61	$3.50	61-1,404	1,405+	61-1,700	1,701+	61-1,088	1,089+
Commercial/Retail	fa	5/8"	$15.83	10	$2.73	$3.70	11-83	84+	11-95	96+	11-83	84+
Commercial/Retail	fb	3/4"	$15.83	10	$2.73	$3.70	11-42	43+	11-60	61+	11-30	31+
Commercial/Retail	fc	1"	$29.71	15	$2.73	$3.70	16-174	175+	16-193	194+	16-163	164+
Commercial/Retail	fd	1 1/2"	$39.57	20	$2.73	$3.70	21-706	707+	21-879	880+	21-865	866+
Commercial/Retail	fe	2"	$59.39	30	$2.73	$3.70	31-739	740+	31-808	809+	31-585	586+
Commercial/Retail	ff	3"	$118.72	60	$2.73	$3.70	61-854	855+	61-1,010	1,011+	61-376	377+
Commercial/Retail	fh	6"	$593.18	200	$2.73	$3.70	201-269	270+	201-292	293+	201-282	283+

City of Paramount
Water Rate Schedule

Account Type	Fee Code	Meter Size	Minimum Charge	Minimum Units*	1st Tier ($ per unit)	2nd Tier ($ per unit)	Units* January-April 1st Tier	Units* January-April 2nd Tier	Units* May-August 1st Tier	Units* May-August 2nd Tier	Units* September-December 1st Tier	Units* September-December 2nd Tier
Industrial/Manufacturing	ga	5/8"	$15.83	10	$2.73	$3.70	11-78	79+	11-190	191+	11-76	77+
Industrial/Manufacturing	gb	3/4"	$15.83	10	$2.73	$3.70	11-23	24+	11-18	19+	11-12	13+
Industrial/Manufacturing	gc	1"	$29.71	15	$2.73	$3.70	16-252	253+	16-213	214+	16-183	184+
Industrial/Manufacturing	gd	1 1/2"	$39.57	20	$2.73	$3.70	21-448	449+	21-513	514+	21-432	433+
Industrial/Manufacturing	ge	2"	$59.39	30	$2.73	$3.70	31-1,059	1,060+	31-773	774+	31-609	610+
Industrial/Manufacturing	gf	3"	$118.72	60	$2.73	$3.70	61-913	914+	61-1,161	1,162+	61-858	859+
Industrial/Manufacturing	gg	4"	$197.73	100	$2.73	$3.70	101-9,014	9,015+	101-10,339	10,340+	101-10,013	10,014+
Industrial/Manufacturing	gh	6"	$593.18	200	$2.73	$3.70	201-9,429	9,430+	201-12,803	12,804+	201-14,237	14,238+
Industrial/Manufacturing	gi	8"	$1,188.22	400	$2.73	$3.70	401-7,893	7,894+	401-7,293	7,294+	401-9,206	9,207+
Industrial/Manufacturing	gj	10"	$1,781.40	600	$2.73		601+		601+		601+	
Irrigation	ha	5/8"	$15.39	10	$2.64	$3.59	11-90	91+	11-97	98+	11-80	81+
Irrigation	hb	3/4"	$15.39	10	$2.64	$3.59	11-117	118+	11-88	89+	11-118	119+
Irrigation	hc	1"	$28.90	15	$2.64	$3.59	16-94	95+	16-105	106+	16-68	69+
Irrigation	hd	1 1/2"	$38.51	20	$2.64	$3.59	21-681	682+	21-650	651+	21-482	483+
Irrigation	he	2"	$57.75	30	$2.64	$3.59	31-681	682+	31-724	725+	31-685	686+
Irrigation	hf	3"	$115.48	60	$2.64	$3.59	61-1,846	1,847+	61-2,726	2,727+	61-1,703	1,704+
Irrigation	hg	4"	$192.34	100	$2.64	$3.59	101-2,618	2,619+	101-3,309	3,310+	101-4,265	4,266+
Reclaimed - Commercial/Retail	la	5/8"	$15.83	10	$2.18	$2.96	11-83	84+	11-95	96+	11-83	84+
Reclaimed - Commercial/Retail	lb	3/4"	$15.83	10	$2.18	$2.96	11-42	43+	11-60	61+	11-30	31+
Reclaimed - Commercial/Retail	lc	1"	$29.71	15	$2.18	$2.96	16-174	175+	16-193	194+	16-163	164+
Reclaimed - Commercial/Retail	ld	1 1/2"	$39.57	20	$2.18	$2.96	21-706	707+	21-879	880+	21-865	866+
Reclaimed - Commercial/Retail	le	2"	$59.39	30	$2.18	$2.96	31-739	740+	31-808	809+	31-585	586+
Reclaimed - Commercial/Retail	lf	3"	$118.72	60	$2.18	$2.96	61-854	855+	61-1,010	1,011+	61-376	377+
Reclaimed - Commercial/Retail	lh	6"	$593.18	200	$2.18	$2.96	201-269	270+	201-292	293+	201-282	283+
Reclaimed - Industrial/Manufacturing	ma	5/8"	$15.83	10	$2.18	$2.96	11-78	79+	11-190	191+	11-76	77+
Reclaimed - Industrial/Manufacturing	mb	3/4"	$15.83	10	$2.18	$2.96	11-23	24+	11-18	19+	11-12	13+
Reclaimed - Industrial/Manufacturing	mc	1"	$29.71	15	$2.18	$2.96	16-252	253+	16-213	214+	16-183	184+
Reclaimed - Industrial/Manufacturing	md	1 1/2"	$39.57	20	$2.18	$2.96	21-448	449+	21-513	514+	21-432	433+
Reclaimed - Industrial/Manufacturing	me	2"	$59.39	30	$2.18	$2.96	31-1,059	1,060+	31-773	774+	31-609	610+
Reclaimed - Industrial/Manufacturing	mf	3"	$118.72	60	$2.18	$2.96	61-913	914+	61-1,161	1,162+	61-858	859+
Reclaimed - Industrial/Manufacturing	mg	4"	$197.73	100	$2.18	$2.96	101-9,014	9,015+	101-10,339	10,340+	101-10,013	10,014+
Reclaimed - Industrial/Manufacturing	mh	6"	$593.18	200	$2.18	$2.96	201-9,429	9,430+	201-12,803	12,804+	201-14,237	14,238+
Reclaimed - Industrial/Manufacturing	mi	8"	$1,188.22	400	$2.18	$2.96	401-7,893	7,894+	401-7,293	7,294+	401-9,206	9,207+
Reclaimed - Industrial/Manufacturing	mj	10"	$1,781.40	600	$2.18		601+		601+		601+	

City of Paramount
Water Rate Schedule

Account Type	Fee Code	Meter Size	Minimum Charge	Minimum Units*	1st Tier ($ per unit)	2nd Tier ($ per unit)	Units* January-April 1st Tier	Units* January-April 2nd Tier	Units* May-August 1st Tier	Units* May-August 2nd Tier	Units* September-December 1st Tier	Units* September-December 2nd Tier
Reclaimed - Irrigation	na	5/8"	$15.39	10	$2.11	$2.87	11-90	91+	11-97	98+	11-80	81+
Reclaimed - Irrigation	nb	3/4"	$15.39	10	$2.11	$2.87	11-117	118+	11-88	89+	11-118	119+
Reclaimed - Irrigation	nc	1"	$28.90	15	$2.11	$2.87	16-94	95+	16-105	106+	16-68	69+
Reclaimed - Irrigation	nd	1 1/2"	$38.51	20	$2.11	$2.87	21-681	682+	21-650	651+	21-482	483+
Reclaimed - Irrigation	ne	2"	$57.75	30	$2.11	$2.87	31-681	682+	31-724	725+	31-685	686+
Reclaimed - Irrigation	nf	3"	$115.48	60	$2.11	$2.87	61-1,846	1,847+	61-2,726	2,727+	61-1,703	1,704+
Reclaimed - Irrigation	ng	4"	$192.34	100	$2.11	$2.87	101-2,618	2,619+	101-3,309	3,310+	101-4,265	4,266+
Construction Meter	kf		$49.50	1+	$2.73							
Fire Services	ie	2"	$41.71	na								
Fire Services	if	3"	$55.87	na								
Fire Services	ig	4"	$83.25	na								
Fire Services	ih	6"	$124.91	na								
Fire Services	ii	8"	$166.56	na								
Fire Services	ij	10"	$208.47	na								
Fire Services	ik	12"	$258.49	na								

* 1 unit = 100 cubic feet = 748 gallons
** Senior citizens, 62 years or older, who live in a single family residence

K COMPLETED DWR CHECKLIST

CITY OF PARAMOUNT

Urban Water Management Plan Checklist, Organized by Subject

No.	UWMP Requirement [a]	California Water Code Reference	Additional Clarification	UWMP Location
	PLAN PREPARATION			
4	Coordinate the preparation of its plan with other appropriate agencies in the area, including other water suppliers that share a common source, water management agencies, and relevant public agencies, to the extent practicable.	10620(d)(2)		Chapter 1, Section 1.4 - Coordination
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)		Chapter 1, Section 1.4 - Coordination
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)		Chapter 1, Section 1.5 - Plan Adoption, Submittal, and Implementation
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)		Chapter 1, Section 1.5 - Plan Adoption, Submittal, and Implementation
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		Chapter 1, Section 1.4 - Coordination

No.	UWMP Requirement [a]	California Water Code Reference	Additional Clarification	UWMP Location
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		Chapter 1, Section 1.4 - Coordination
57	Provide supporting documentation that the plan has been adopted as prepared or modified.	10642		Chapter 1, Section 1.5 - Plan Adoption, Submittal, and Implementation Appendix B
58	Provide supporting documentation as to how the water supplier plans to implement its plan.	10643		Chapter 1, Section 1.5 - Plan Adoption, Submittal, and Implementation
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)		Chapter 1, Section 1.5 - Plan Adoption, Submittal, and Implementation
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		Chapter 1, Section 1.5 - Plan Adoption, Submittal, and Implementation
	SYSTEM DESCRIPTION			
8	Describe the water supplier service area.	10631(a)		Chapter 2, Section 2.1 - Service Area Physical Description
9	Describe the climate and other demographic factors of the service area of the supplier	10631(a)		Chapter 2, Section 2.2 - Service Area Climate

No.	UWMP Requirement [a]	California Water Code Reference	Additional Clarification	UWMP Location
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.	Chapter 2, Section 2.3 - Service Area Population
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.	Chapter 2, Section 2.3 - Service Area Population
12	Describe other demographic factors affecting the supplier's water management planning.	10631(a)		Chapter 2, Section 2.4 - Other Demographic Factors
	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)		Chapter 3, Section 3.1 - Water Conservation Bill of 2009 Baselines and Targets
2	*Wholesalers:* Include an assessment of present and proposed future measures, programs, and policies to help achieve the water use reductions. *Retailers:* Conduct at least one public hearing that includes general discussion of the urban retail water supplier's implementation plan for complying with the Water Conservation Bill of 2009.	10608.36 10608.26(a)	Retailers and wholesalers have slightly different requirements	Chapter 3, Section 3.4 - Water Use Reduction Plan
3	Report progress in meeting urban water use targets using the standardized form.	10608.40		Chapter 3, Section 3.1 - Water Conservation Bill of 2009 Baselines and Targets

No.	UWMP Requirement [a]	California Water Code Reference	Additional Clarification	UWMP Location
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.	Chapter 3, Section 3.2 - Water Demands
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.	Chapter 3, Section 3.3 - Water Demand Projections
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)		Chapter 3, Section 3.2.6 - Lower Income Housing Projections
	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.	Chapter 4, Section 4.1 - Water Sources
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.	Chapter 4, Section 4.2 - Groundwater

No.	UWMP Requirement [a]	California Water Code Reference	Additional Clarification	UWMP Location
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)		N/A
16	Describe the groundwater basin.	10631(b)(2)		Chapter 4, Section 4.2 - Groundwater Appendix F
17	Indicate whether the groundwater basin is adjudicated? Include a copy of the court order or decree.	10631(b)(2)		Chapter 4, Section 4.2 – Groundwater Appendix G
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)		Chapter 4, Section 4.2 – Groundwater
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)		N/A
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)		Chapter 4, Section 4.2 - Groundwater
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.	Chapter 4, Section 4.2 - Groundwater
24	Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis.	10631(d)		Chapter 4, Section 4.3 - Transfer Opportunities

No.	UWMP Requirement [a]	California Water Code Reference	Additional Clarification	UWMP Location
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)		Chapter 4, Section 4.6 - Future Water Projects
31	Describe desalinated water project opportunities for long-term supply, including, but not limited to, ocean water, brackish water, and groundwater.	10631(i)		Chapter 4, Section 4.4 - Desalinated Water Opportunities
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		Chapter 4, Section 4.5 - Recycled Water Opportunities
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)		Chapter 4, Section 4.5 - Recycled Water Opportunities
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)		Chapter 4, Section 4.5 - Recycled Water Opportunities
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)		Chapter 4, Section 4.5 - Recycled Water Opportunities
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)		Chapter 4, Section 4.5 - Recycled Water Opportunities
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)		Chapter 4, Section 4.5 - Recycled Water Opportunities

No.	UWMP Requirement [a]	California Water Code Reference	Additional Clarification	UWMP Location
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)		Chapter 4, Section 4.5 - Recycled Water Opportunities
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)		Chapter 4, Section 4.5 - Recycled Water Opportunities
WATER SHORTAGE RELIABILITY AND WATER SHORTAGE CONTINGENCY PLANNING [b]				
5	Describe water management tools and options to maximize resources and minimize the need to import water from other regions.	10620(f)		Chapter 5, Section 5.1 - Water Supply Reliability
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)		Chapter 5, Section 5.4 - Drought Planning
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)		Chapter 5, Section 5.1 - Water Supply Reliability
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)		Chapter 5, Section 5.4 - Drought Planning
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)		Chapter 5, Section 5.4 - Drought Planning
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)		Chapter 5, Section 5.2 - Water Shortage Contingency Planning

No.	UWMP Requirement [a]	California Water Code Reference	Additional Clarification	UWMP Location
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)		Chapter 5, Section 5.2 - Water Shortage Contingency Planning
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)		Chapter 5, Section 5.2 - Water Shortage Contingency Planning
40	Indicated penalties or charges for excessive use, where applicable.	10632(f)		Chapter 5, Section 5.2 - Water Shortage Contingency Planning
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)		Chapter 5, Section 5.2 - Water Shortage Contingency Planning
42	Provide a draft water shortage contingency resolution or ordinance.	10632(h)		Chapter 5, Section 5.2 - Water Shortage Contingency Planning Appendix H
43	Indicate a mechanism for determining actual reductions in water use pursuant to the urban water shortage contingency analysis.	10632(i)		Chapter 5, Section 5.4 - Drought Planning
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	Chapter 5, Section 5.3 - Water Quality

No.	UWMP Requirement [a]	California Water Code Reference	Additional Clarification	UWMP Location
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)		Chapter 5, Section 5.4 - Drought Planning
	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.	Chapter 6, Section 6.1 - Demand Management Measurement Implementation
27	Describe the methods the supplier uses to evaluate the effectiveness of DMMs implemented or described in the UWMP.	10631(f)(3)		Chapter 6
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)		Chapter 6
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.	N/A
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.